THE ALPHONSIAN PARADIGM OF OUTCOME BASED EDUCATION

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ISBN: 978-93-85657-41-2

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THE ALPHONSIAN PARADIGM OF OUTCOME BASED EDUCATION OBE

The comprehensive OBE framework for
ALPHONSA COLLEGE, PALA, KERALA

Dr. Shaji John

THE ALPHONSIAN PARADIGM OF
OUTCOME BASED EDUCATION

The comprehensive OBE framework for
ALPHONSA COLLEGE, PALA, KERALA

Chief Editor

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THE ALPHONSIAN PARADIGM OF OUTCOME BASED EDUCATION
July, 2023

Cover Design: Jabez, onlineprinting.pala@gmail.com

Printed at: St. Thomas Press, Pala, Kerala

Published by
Alphonsa College Pala, Kerala in Collaboration with Publication Division
SH College (Autonomous) Thevara, Kochi, Kerala, India – 682 013

Price Rs. 600/- ISBN: 978-93-85657-41-2

PREFACE

With great pleasure the comprehensive manual of the OBE of Alphonsa College Pala – **"The Alphonsian Paradigm of Outcome Based Education"** is set to accomplish. In order to outfit to the changing world scenario in terms of employability, acquisition of skills and upgrading oneself with the latest knowledge base in every field, OBE - bestows towards students' performance and skill development in being fruitful and resourceful in their personal and professional life.

The purpose of this manual is to provide technical assistance to the faculty members about the need for Outcome Based Education (OBE), various components of OBE, OBE based curriculum, content delivery, assessment methods, measuring attainments, impact analysis and continuous improvement. Outcome Based Education, being learners-centric, has Programme Outcomes (PO) , Programme Specific Outcomes (PSO) and Course Outcome (CO) for every programme. OBE designs curriculum and syllabi based on the outcomes anticipated from a programme. The manual point towards the enhancement of individual growth and skill development through the keen design of POs, PSOs and COs with suitable methods and methodologies adaptive to the students of varied cultural and financial areas. This manual provides clear standards for observable and measurable outcomes which focuses on the vision and mission of the college. The manual aids in the implementation of OBE, which benefits the students and teachers with a clear and flexible teaching-learning scenario which can help to compare their own progress and put more involvement in the development process. By emphasizing the outcomes and actively engaging both teachers and learners in the learning process, we are transforming education from a traditional, teacher-centred approach to a dynamic, student-centred experience.

Over the past months, we have boarded on an inspiring journey, conducting three workshops on OBE implementation under the esteemed guidance of Dr. Shefeeque V, Research Officer at the Kerala State Higher Education Council and Dr. T C Thankachan, Vice Principal, St. Thomas College of Teacher Education, Pala. Their expertise and invaluable insights have provided us with a strong foundation to develop this manual, encircling various disciplines including Botany, Mathematics, Physics, Chemistry, Zoology, English, Economics, History, Commerce, Political Science,

Hindi, Malayalam, Clinical Nutrition & Dietetics, Fashion Technology and Sports Nutrition & Physiotherapy.

As you explore the pages of this OBE manual, we encourage you to clench the opportunities it boons. Let us work together to create an educational landscape that nurtures critical thinking, fosters creativity, and imparts a lifelong passion for learning.

We remember the prayer, support and concern given by H.E. Mar Joseph Kallarangatt (Bishop, Diocese of Palai & Patron of the College) and Msgr. Dr. Joseph Thadathil (Manager of the College) in this special occasion. We extend our heartfelt gratitude to Dr. T C Thankachan, Associate Professor, St. Thomas College of Teacher Education, Pala, Dr. Minimol Mathew & Dr. Manju Elizabeth Kuruvila, Vice Principals, Alphonsa College Pala, Dr. Jose Joseph, Bursar, Alphonsa College Pala, Dr. Dani Mathew M, IQAC Co-ordinator, Ms Annu Paul, NAAC Co-ordinator, Ms. Rekha George, IQAC Secretary and all the faculty members who have contributed to the development of this manual. We also extend our appreciation to our non-teaching staff and students for their enthusiasm and commitment to their educational journey.

Thank you all.

Dr. Shaji John
Principal, Alphonsa College, Pala

FOREWORD

I am delighted to present "The Alphonsian Paradigm of Outcome Based Education" the comprehensive Outcome-Based Education (OBE) Manual developed by Alphonsa College Pala. Alphonsa College, Pala is one of the pioneer institutions for the higher education of women in the state of Kerala. It perpetuates the sacred memory of St. Alphonsa, the contemplative mystic whose saintly life of love and service has always been an inspiration and source of strength for the people around her.

The college is a standing monument of the farsightedness and pioneering leadership of Mar. Sebastian Vayalil, the first Bishop of Pala diocese. The fundamental aim of the Alphonsa College is to impart spiritually-oriented and value-based education to young women under circumstances congenial to their all-round development. It encourages the students to aim at excellence not only in academic pursuits but also in every aspect of human endeavour to achieve perfection. As the patron of this esteemed institution, it gives me immense pleasure and pride to witness the dedication and commitment of our faculty members and students towards embracing a transformative approach to education.

In today's rapidly evolving world, education must transcend traditional boundaries and equip our students with the skills and knowledge necessary to thrive in an increasingly complex and interconnected society. Alphonsa College Pala has consistently strived to impart knowledge and impart values that go beyond academic excellence. The OBE Manual stands as a testament to our collective efforts in nurturing well-rounded individuals who are not only equipped with subject-specific knowledge but also possess the skills and attitudes necessary to excel in various facets of life.

As we navigate the ever-changing landscape of education, it is imperative that we adapt to the evolving needs of our students and the demands of the global community. The OBE approach comprised by Alphonsa College Pala signifies our commitment to providing an education that is relevant, engaging, and empowering. The OBE manual encapsulates this vision, serving as a guiding framework to create an educational experience that inspires our students to realize their full potential. This manual serves as a comprehensive guide, offering a roadmap to implement OBE effectively across

diverse disciplines. It outlines the learning outcomes, curriculum content, teaching methodologies, and assessment tools that align with our vision of holistic education.

I commend the efforts of Dr. Shefeeque V, Research Officer at the Kerala State Higher Education Council, and Dr. T C Thankachan, Vice Principal of St. Thomas College of Teacher Education, Pala, for their invaluable contributions to the development of this manual. Their expertise and guidance have been instrumental in shaping our OBE framework.

To the faculty members, I acclaim your tireless efforts in developing this manual, tailored to the specific disciplines. Your commitment to excellence and dedication to our students' growth are commendable.

To the students, I urge you to make the most of this OBE framework and grasp the opportunities it presents. Engage actively in your learning journey, as this manual will guide you towards acquiring not just knowledge but also the skills and attitudes necessary for success in today's dynamic world which ensure our vision – "The Perfect Woman Nobly Planned"

Finally, I express my heartfelt appreciation to the entire Alphonsa College Pala community, including the management, staff, students, and parents, for your unwavering support and trust in our educational endeavours. Together, we will continue to strive towards excellence and produce graduates who will contribute meaningfully to society.

May this OBE Manual be a catalyst for educational transformation, fostering responsible citizens who will shape a brighter future.

Blessings,

Mar Joseph Kallarangatt
Bishop, Diocese of Palai

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PART 1

THEORETICAL CONCEPTS BEHIND OUTCOME BASED EDUCATION

Introduction

India has become the permanent signatory member of the Washington Accord on 13 June 2014. India has started implementing OBE in higher technical education like diploma and undergraduate programmes. The National Board of Accreditation, a body for promoting international quality standards for technical education in India has started accrediting only the programmes running with OBE from 2013.

The National Board of Accreditation mandates establishing a culture of outcomes-based education in institutions that offer Engineering, Pharmacy, Management programs. Outcomes analysis and using the analytical reports to find gaps and carry out continuous improvement is essential cultural shift from how the above programs are run when OBE culture is not embraced. Outcomes analysis requires huge amount of data to be churned and made available at any time, anywhere.

Outcome-based education (OBE) is education in which an emphasis is placed on a clearly articulated idea of what students are expected to know and be, able to do, that is, what skills and knowledge they need to have, when they leave the higher education system.

Outcome Based Education Vs Traditional Education

a) The basic aim of the traditional education system is to pass on the knowledge of the previous generation to the upcoming generation of students.

b) *'Remodeling' & 'Restructuring'* the norms are nowhere the prime goal in the traditional environment.

c) Even the most experienced staff members are concerned only about teaching the curriculum and don't have the enthusiasm to stretch their lessons beyond the classroom. They just want students to learn & mug up things being taught.

d) To be honest, the curriculum plays a pivotal role in providing deeper insights regarding different subjects to the students. The more practicality is included, the more students will develop essential skills that'll guarantee a career worth pursuing.

e) OBE system provides expanded opportunities for the students by following a student-centered learning approach. It has a clear goal to impact their lives positively committing to excellence & innovation. The curriculum is designed in such a way that the output to be achieved by the end of the session is decided in the first place. Teachers & K12 faculty need to give inputs that may include various innovative activities that would succour students to reach the desired target. Teachers need to decide what skills are required to master a particular subject, and then, they design the curriculum keeping the same in mind.

Benefits of OBE

Outcome Based Education possesses the power to transform the learning experience of students and must be embraced by educational institutions for enhancing their knowledge and skills.

Clarity

The focus on outcomes creates a clear expectation of what needs to be accomplished by the end of the course. Students will understand what is expected of them and teachers will know what they need to teach during the course. Clarity is important over years of schooling and when team teaching is involved. Each team member, or year in school, will have a clear understanding of what needs to be accomplished in each class, or at each level, allowing students to progress. .

Flexibility

With a clear sense of what needs to be accomplished, instructors will be able to structure their lessons around the student's needs. OBE does not specify a specific method of instruction, leaving instructors free to teach their students using any method. Instructors will also be able to recognize diversity among students by using various teaching and assessment techniques during their class. OBE is meant to be a student-centered learning model. Teachers are meant to guide and help the students understand the material in any way necessary, study guides, and group work are some

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of the methods instructors can use to facilitate students learning.

Comparison

OBE can be compared across different institutions. On an individual level, institutions can look at what outcomes a student has achieved to decide what level the student would be at within a new institution. On an institutional level, institutions can compare themselves, by checking to see what outcomes they have in common, and find places where they may need improvement, based on the achievement of outcomes at other institutions. The ability to compare easily across institutions allows students to move between institutions with relative ease. The institutions can compare outcomes to determine what credits to award the student. The clearly articulated outcomes should allow institutions to assess the student's achievements rapidly, leading to increased movement of students. These outcomes also work for school to work transitions. A potential employer can look at records of the potential employee to determine what outcomes they have achieved. They can then determine if the potential employee has the skills necessary for the job.

Involvement

Student involvement in the classroom is a key part of OBE. Students are expected to do their own learning, so that they gain a full understanding of the material. Increased student involvement allows students to feel responsible for their own learning, and they should learn more through this individual learning. Other aspects of involvement are parental and community, through developing curriculum, or making changes to it. OBE outcomes are meant to be decided upon within a school system, or at a local level. Parents and community members are asked to give input in order to uphold the standards of education within a community and to ensure that students will be prepared for life after school.

OBE Process

Outcome-based education (OBE) is an educational delivery model that focuses on mapping, measuring, and achieving predetermined educational goals to help students learn, develop, and nurture skills that would help them grow in their professional as well as personal life.

We usually follow the 'constructive alignment' process for building the curriculum for OBE. This term was given by Professor John Biggs in 1999. It means the process of creating a learning environment that encourages various learning activities to achieve the desired learning outcomes.

Institution's Vision & Mission

Institutions need to decide a short-term goal as well as long-term goal in terms of students' learning outcomes, their personal growth, skill development, and institution's overall performance. The vision & mission should be divided as per the departments first, so that the higher aim of the entire institution could be achieved within a specified time. Department can formulate its vision and mission in aligned with Institute Vision and Mission. Institutions can follow the given steps to define their vision & mission: department-wise.

a) Brainstorming sessions with experts & experienced faculty of various departments

b) Speaking to industry professionals and alumni batches

c) Analyzing the opinions and deciding a solid plan of action

Once the vision & mission is clear, institutions need to focus on teaching-learning processes that provide the world-class education to their students.

Establishing The Program Educational Objectives & Program Outcomes

Program educational objectives (PEOs) specify the expected outcomes of students once they graduate, mostly the way they conduct their behavior & ethics and excel in their careers. Here is a step-by-step approach to establishing the PEOs for institutions.

a) Step1: Institutions need to consider the vision & mission statements and prepare a plan of action to achieve PEOs.

b) Step2: Experienced faculty members and Head of the Department (HOD) must create a draft and share it across the departments.

c) Step3: The points mentioned in the draft & processes that need to be implemented can be discussed for gaining approval of authorities.

d) Step4: The final draft prepared after taking the views of everyone inconsideration should be presented to the Program Assessment Committee so that they can further forward it to the Departmental Advisory Board.

e) Step5: The Departmental Advisory Board reviews the points and sends the draft to the Board of Studies and Academic Council for the final approval. Once the institution gets approval, they need to design a curriculum that can help students grow personally as well as professionally.

f) Step6: Institutions need to analyze the student learning outcomes periodically to identify the learning gaps and rectify them.

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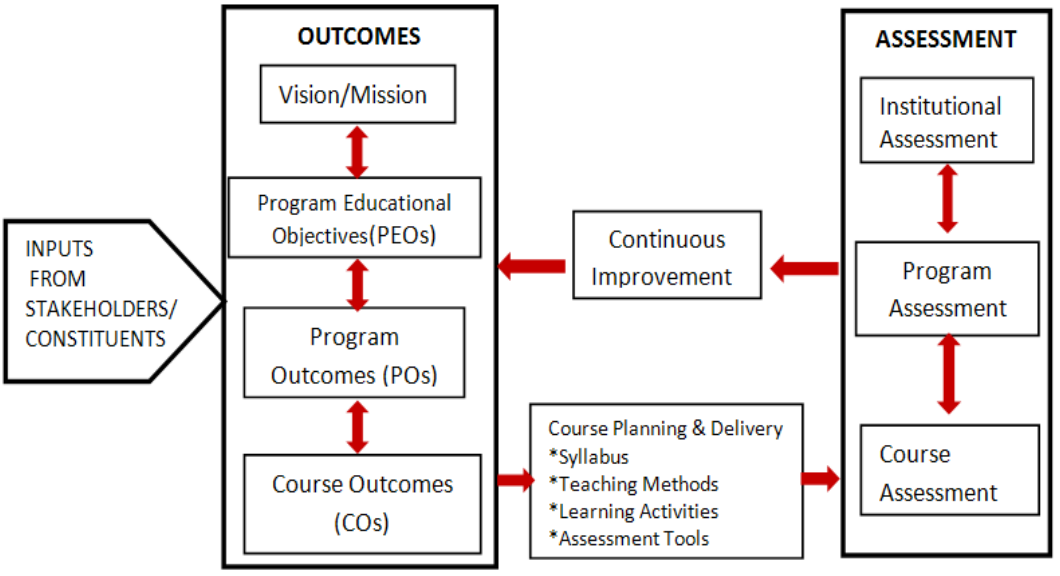
ISBN: 978-93-85657-41-2



Revised Bloom's Taxonomy

In 1956, **Benjamin S Bloom,** American educational psychologist, led a group of educational psychologists to develop a taxonomy, or classification system, for learning. He proposed that learning fits into one of three psychological domains:

- **Cognitive** domain – processing information, knowledge and mental skills
- **Affective** domain – Attitudes and feelings
- **Psychomotor** domain – manipulative, manual or physical skills

Bloom's Taxonomy comprises three learning domains: the cognitive, affective, and psychomotor, and assigns to each of these domains a hierarchy that corresponds to different levels of learning. It's important to note that the different levels of thinking defined within each domain of the Taxonomy are hierarchical.

A group of cognitive psychologists, curriculum theorists and instructional researchers, and testing and assessment specialists published in 2001 a revision of Bloom's Taxonomy with the title A Taxonomy for Teaching, Learning, and Assessment. Bloom's Revised Taxonomy is simply an update to the original taxonomy that made expanded on the vision of the original while revising the language and hierarchy of the popular Cognitive Process Dimension (what are referred to as the 'levels' of Bloom's Taxonomy). There are six levels of cognitive learning according to the revised version of Bloom's Taxonomy. Each level is conceptually different. The six levels are remembering, understanding, applying, analyzing, evaluating, and creating.

Revised Bloom's Cognitive Domain with Instructional Ideas

Category	**Verbs**	**Instructional Strategies / Products**
Remember Recognizing, Recalling	Arrange, Count, Define, Describe, Draw, Duplicate, Identify, Label, List, Match, Name, Order, Point, Quote, Read, Recall, Recite, Recognize, Record, Repeat, Reproduce, Select, State, Write	Analogies, Audio, Charts, Examples, Illustrations, Lecture, Timelines, Video, Visuals Quiz, Definition, Fact, Worksheet, Test, Label, List, Workbook, Reproduction, Vocabulary
Comprehend Interpreting, Exemplifying, Classifying, Inferring, Comparing, Explaining	Associate, Classify, Compare, Compute, Contrast, Convert, Describe, Differentiate, Discuss, Distinguish, Explain, Express, Extend, Generalize, Give Examples, Identify, Indicate, Locate, Listing, Matching, Paraphrase, Predict, Recognize, Report, Restate, Review, Rewrite, Select, Sort, Summarize, Tell, Translate	Discussion, Learner Presentations, Questions and Answers, Reports, Summaries, Recitation, Summary Collection, Explanation, Show and tell, Example, Quiz, List, Label, Outline
Apply Executing, Implementing	Add, Apply, Calculate, Change, Choose, Classify, Complete, Compute, Demonstrate, Determine, Develop, Discover, Divide, Dramatize, Employ, Examine, Formulate, Graph, Illustrate, Interpret, Manipulate, Modify, Multiply, Operate, Organize, Perform, Practice, Predict, Prepare, Produce, Relate, Schedule, Shop, Show, Sketch, Solve, Subtract, Translate, Use	Demonstrations, Exercises, Microteach, Practice, Projects, Role Play, Simulations, Sketches Photograph, Illustration, Sculpture, Presentation, Interview, Performance, Diary, Journal

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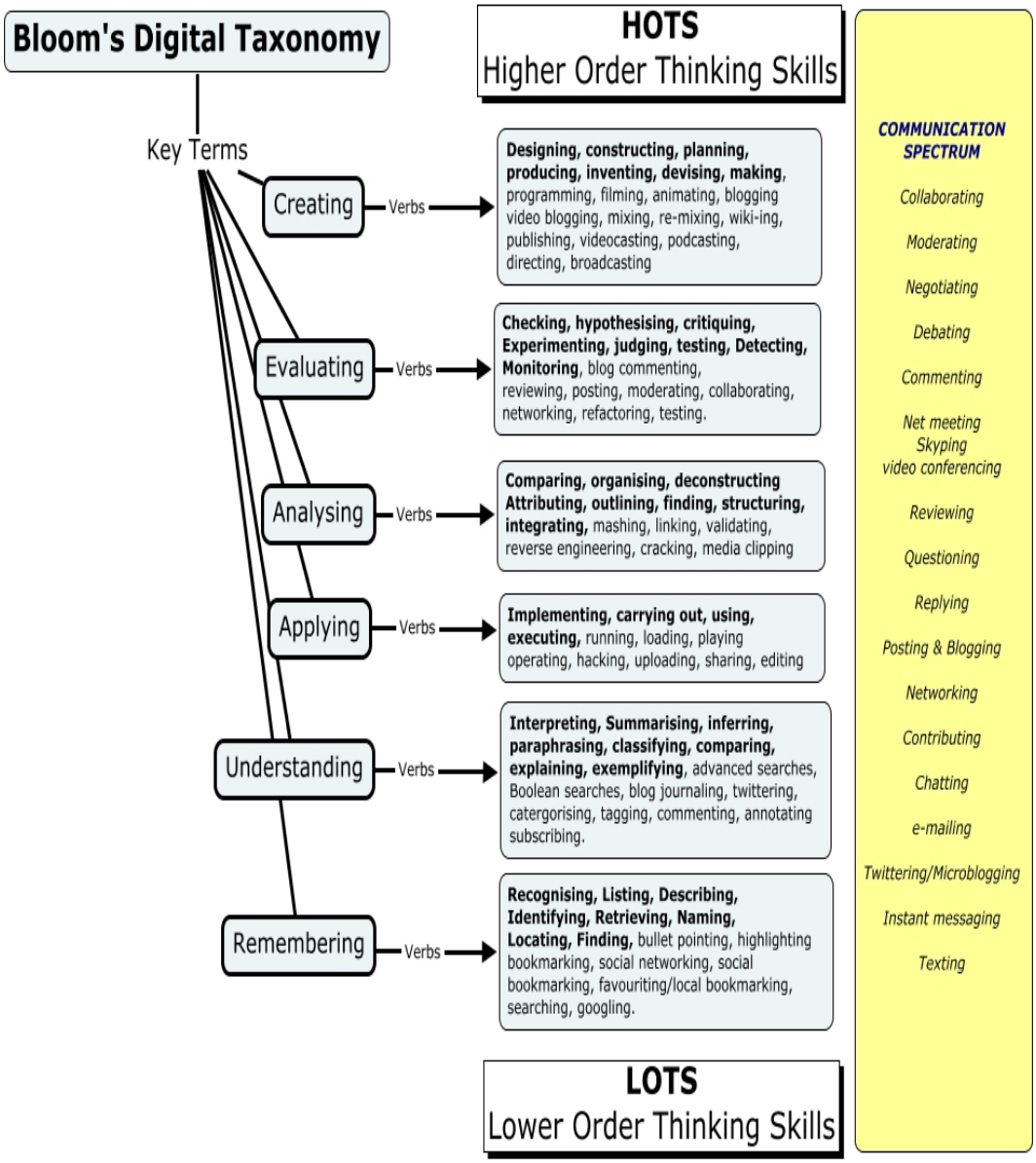
Analyze Differentiating, Organizing, Attributing	Analyze, Appraise, Arrange, Breakdown, Calculate, Combine, Compare, Contrast, Criticize, Design, Detect, Determine, Develop, Diagram, Differentiate, Discriminate, Distinguish, Estimate, Examine, Experiment, Extrapolate, Formulate, Identify, Illustrate, Infer, Inspect, Inventory, Outline, Point Out, Question, Relate, Select, Separate, Subdivide, Test, Utilize	Case Studies, Critical Incidents, Discussion, Problems Graph, Spreadsheet, Checklist, Chart, Outline, Survey, Database, Mobile, Abstract, Report
Evaluate Checking, Critiquing	Appraise, Argue, Assess, Attack, Choose, Compare, Conclude, Contrast, Criticize, Critique, Defend, Determine, Estimate, Evaluate, Grade, Interpret, Judge, Justify, Measure, Predict, Rank, Rate, Revise, Score, Select, Support, Test, Value, Weigh	Appraisals, Case Studies, Critiques, Exercises, Projects, Simulations Debate, Panel, Report, Evaluation, Investigation, Verdict, Conclusion, Persuasive speech
Create Generating, Planning, Producing	Arrange, Assemble, Categorize, Collect, Combine, Compile, Compose, Construct, Create, Debate, Derive, Design, Devise, Explain, Formulate, Generate, Group, Integrate, Manage, Modify, Order, Organize, Plan, Prepare, Prescribe, Produce, Propose, Rearrange, Reconstruct, Relate, Reorganize, Revise, Rewrite, Specify, Summarize, Synthesize, Tell, Transform	Case Studies, Constructs, Creative Exercises, Develop Plans, Problems, Projects, Simulations Film, Story, Plan, New game, Newspaper, Media product, Advertisement, Painting, Song


Bloom's Digital Taxonomy
HOTS
Higher Order Thinking Skills
Key Terms
Creating
Verbs
Designing, constructing, planning, producing, inventing, devising, making, programming, filming, animating, blogging video blogging, mixing, re-mixing, wiki-ing, publishing, videocasting, podcasting, directing, broadcasting
Evaluating
Verbs
Checking, hypothesising, critiquing, Experimenting, judging, testing, Detecting, Monitoring, blog commenting, reviewing, posting, moderating, collaborating, networking, refactoring, testing.
Analysing
Verbs
Comparing, organising, deconstructing Attributing, outlining, finding, structuring, integrating, mashing, linking, validating, reverse engineering, cracking, media clipping
Applying
Verbs
Implementing, carrying out, using, executing, running, loading, playing operating, hacking, uploading, sharing, editing
Understanding
Verbs
Interpreting, Summarising, inferring, paraphrasing, classifying, comparing, explaining, exemplifying, advanced searches, Boolean searches, blog journaling, twittering, catergorising, tagging, commenting, annotating subscribing.
Remembering
Verbs
Recognising, Listing, Describing, Identifying, Retrieving, Naming, Locating, Finding, bullet pointing, highlighting bookmarking, social networking, social bookmarking, favouriting/local bookmarking, searching, googling.
LOTS
Lower Order Thinking Skills
COMMUNICATION SPECTRUM
Collaborating
Moderating
Negotiating
Debating
Commenting
Net meeting
Skyping
video conferencing
Reviewing
Questioning
Replying
Posting & Blogging
Networking
Contributing
Chatting
e-mailing
Twittering/Microblogging
Instant messaging
Texting

PART II

THE ALPHONSIAN PARADIGM OF OUTCOME BASED EDUCATION

Alphonsa College, Pala, Kottayam District is one of the pioneer institutions for the higher education of women in the state of Kerala. It perpetuates the sacred memory of St. Alphonsa, the contemplative mystic whose saintly life of love and service has always been an inspiration and source of strength for the people around her. She was beatified by His Holiness Pope John Paul II when he visited India in 1986. Saint Alphonsa was canonized by His Holiness Pope Benedict XVI on 12 October 2008. She is the first Indian woman to be raised to the Altar by the Catholic Church. Established in 1964 as a Junior College with 400 students and 13 teachers, Alphonsa College has now attained the status of a First Grade Woman's College.

The college is a standing monument of the farsightedness and pioneering leadership of Mar. Sebastian Vayalil, the first Bishop of Pala diocese. Though advanced in several respects, this area lacked facilities for women's education. Fully convinced of the fact that total progress of a society is possible only through the education of women, His Excellency took the bold step of starting a women's college in Pala with the support of several eminent leaders of the locality. The college is run by the Catholic Diocese of Pala. His Excellency Late Mar Sebastian Vayalil was the founder – patron of the institution. His Excellency mar Joseph Pallikkapparambil Emeritus Bishop of Pala was the patron of the college from 1981 to 2004.

The institution at present is run under the efficient stewardship of His Excellency Mar Joseph Kallarangatt, Bishop of Pala – the present patron, Msgr. Dr. Joseph Thadathil – the Manager, and Rev Dr. Shaji john – the Principal and Rev. Dr. Sr. Minimol Mathew and Dr. Sr. Manju Elizabeth Kuruvila – the Vice Principals. The college was declared as a Minority Educational Institution by the National Commission for Minority Educational Institution, Government of Kerala.

The fundamental aim of the Alphonsa College is to impart spiritually-oriented and value-based education to young women under circumstances congenial to their all-round development. It encourages the students to aim at excellence not only in academic pursuits but also in every aspect of human endeavor to achieve perfection. The students are prompted to strive for academic excellence so that in course of time they may take up suitable careers for the betterment of their lives and also for their families and society at large. The various co-curricular activities of the College, especially the extension programmes provide them with a rare social consciousness that motivate them to reach out to their fellow-men, particularly the needy and the marginalized.

VISION

The perfect woman nobly planned.

To create self- reliant and liberated young women with traditional cultural values and moral integrity who will be agents of social transformation in their families and society.

MISSION

To equip our students with deep knowledge and globally acceptable skills.

To develop values of self-respect, tolerance, discipline, hard work and patriotism. To promote learning that will contribute to women empowerment by enabling women to become self-reliant.

AIMS AND OBJECTIVES

The fundamental aim of the college is to impart sound learning to young women under circumstances congenial to their all-round development. It encourages the students to aim at excellence not only in academic pursuits, but also in every aspect of human endeavors to achieve perfection.

The students are prompted to strive for academic excellence so that in course of time they may take up suitable careers for the betterment of their lives and also of their families and society at large. The various co-curricular activities of the college especially the extension programmes provide them with a rare social consciousness that motivates them to reach out to their fellowmen particularly the needy and the marginalized.

Core Values

The Alphonsa College community is committed to following a set of enduring Core Values. These values are focused on the sustainable development of the institution and serve as a guide through changing times and shape our Mission, Vision, and Goals.

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Inspiring Campus Environment:

Taking inspiration from the eternal teacher, Jesus Christ, Alphonsa College Pala preserves a serene cultural and aesthetic environment which is welcoming, secure, pleasing, and well suited for young women.

Academic Excellence and Success:

We value high quality education designed to meet the career and transfer needs of our community via best practices in teaching and encouraging innovation/research in graduate education.

Value and Outcome Based Education:

We value student centered teaching learning process, focused on the outcomes, while following discipline, punctuality, sincerity, commitment and social justice, through demonstration and practice in the institution.

Women Empowerment:

We strive to bring out competent and self reliant women to the society through higher education. We value the employability and skill development of young **women through specialist, career oriented education.**

Transformational Learning and Holistic Development

We value and promote multi-disciplinary research, creativity, innovation, experimentation and critical thinking. We value learning and the pursuit of knowledge as lifelong processes of transformational personal and professional growth.

Continuous Improvement:

We value continuous improvement through the assessment of student learning outcomes, program effectiveness, and our decision-making processes. We utilize these assessments to improve the quality of our courses, programs and practices.

Environmental Sustainability:

We value adopting practices to protect the environment for future generations and sharing these values with others.

Civic Awareness:

We value social awareness that promote the understanding and betterment of society and the world by engaging our students, staff and surrounding community in meaningful discussions and activities.

Collegiality and Professionalism:

We support, promote and demonstrate respect, kindness, understanding, civility, cooperation and acceptance. We foster a spirit of collegiality and professionalism. We value others, ourselves, and our students as unique individuals and embrace the commonalities and the differences.

Participatory Decision Making:

We value decentralization of powers that allow each of us to contribute ideas, bring forth concerns, and explore options in developing consensus. We value and trust our management, as we participate in the decision making.

Institutional Wellness:

We value an institutional attitude and culture that promotes and supports total health and wellness of staff and students; a friendly, efficient and flawless administrative set up ensuring smooth functioning of the institution.

Formulation of PO, PSO & CO

PROGRAMME OUTCOMES: UG

In alignment with the college's vision and mission, the undergraduate programs at Alphonsa College, Pala aim to empower young women with the knowledge, skills, and values necessary to become self-reliant, morally upright, and socially transformative individuals. The following are the program outcomes for undergraduate students:

PO1	Academic Excellence: Graduates will demonstrate a deep understanding of their subject and they will exhibit the ability to apply their knowledge in practical situations.
PO2	Critical Thinking and Problem-Solving: Students will develop the skills to analyze complex issues, think critically, and propose effective solutions to real-world problems.
PO3	Communication Skills: Graduates will be proficient in written and verbal communication, enabling them to express ideas and information clearly and effectively
PO4	Global Perspective: Students will have an awareness of global issues and an appreciation of cultural diversity, allowing them to engage in a globalized world with sensitivity and adaptability.
PO5	Self-Reliance: Graduates will be equipped with the skills and knowledge to be self-reliant and independent, ensuring their economic and personal well-being.
PO6	Ethical and Moral Integrity: Students will internalize traditional cultural values and moral principles, demonstrating integrity and ethical conduct in their personal and professional lives.
PO7	Research and Innovation: Graduates will possess the ability to engage in research and innovation, contributing to advancements in their respective fields.
PO8	Environmental Awareness: Students will be conscious of environmental issues and contribute to sustainability efforts in their personal and professional lives.
PO9	Lifelong Learning: Graduates will develop a thirst for continuous learning, staying updated with the latest knowledge and skills throughout their lives.
PO10	Leadership Skills: Students will be prepared to take on leadership roles and inspire positive change in their families and society.
PO11	Discipline and Hard Work: Graduates will exhibit discipline, perseverance, and a strong work ethic, which are essential for personal and professional success.
PO12	Patriotism and Civic Engagement: Students will develop a sense of patriotism and civic responsibility, actively participating in nation-building and societal improvement.
PO13	Gender Empowerment: Graduates will contribute to women's empowerment by advocating for gender equality and equal opportunities, both personally and within their communities.
PO14	Self-Respect and Tolerance: Students will cultivate a sense of self-respect and tolerance for diverse perspectives, fostering a harmonious and inclusive society.

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PROGRAMME OUTCOMES: PG

The postgraduate programs at Alphonsa College, Pala are designed to build upon the foundational principles of the college's vision and mission, further empowering young women to excel in their academic pursuits and become catalysts for positive change in their communities. The following are the program outcomes for postgraduate students:

PO1	Acquire an advanced level of knowledge and expertise in the respective discipline and they will engage in critical analysis and advanced research.
PO2	Develop strong research skills, including the ability to conduct independent research, analyse complex issues, and contribute to the academic discourse in their respective disciplines.
PO3	Effective Communication: Students will refine their communication skills, including advanced written and oral communication, enabling them to convey complex ideas effectively.
PO4	Gain a deep understanding of global issues, fostering a global perspective and an appreciation for cultural diversity.
PO5	Discipline and Work Ethic: Students will exemplify discipline, hard work, and a strong work ethic in all aspects of their lives.
PO6	Acquire advanced critical thinking and problem-solving abilities, with the capacity to address complex, multifaceted issues
PO7	Develop leadership skills and the ability to innovate in their fields, driving positive change and advancements
PO8	Ethical and Moral Leadership: Graduates will embody ethical and moral integrity, serving as role models for ethical leadership in their professional and personal lives
PO9	Community and Societal Transformation: Students will actively engage in projects and initiatives aimed at bringing about positive change in their communities and society at large
PO10	Self-Reliance and Entrepreneurship: Graduates will acquire the knowledge and skills necessary to be self-reliant, including entrepreneurship and business acumen
PO11	Empowerment and Advocacy: Students will actively advocate for women's empowerment and gender equality, both personally and within their professional spheres
PO12	Self-Respect and Tolerance: Graduates will continue to foster self-respect and promote tolerance and inclusivity in all their interactions.
PO13	Environmental Responsibility: Students will be environmentally conscious and actively work towards sustainability in their personal and professional endeavours.
PO14	Continued Learning: Graduates will maintain a commitment to lifelong learning, staying updated with the latest developments in their fields.

B.Com.
PROGRAM SPECIFIC OUTCOMES

PSO1: Equip students with the practical applications of accounting and the efficient analysis and interpretation of financial statements.

PSO2: Acquaint students well versed in basic provisions regarding legal framework governing the business world.

PSO3: Familiarize the students with more advanced tools of data analysis and forecasting and to make the students understand the role of statistics and quantitative techniques in business.

PSO4: Familiarise the students with the economic concepts and principles underlying business decision making.

PSO5: Mould young minds to take up challenges and become employer than seeking employment and to make them aware of the opportunities and support for entrepreneurship in India.

PSO6: Familiarise the students with the functional areas and principles of financial management.

PSO7: Enable students to have an understanding of determination of Total Income and tax payable and to get an overview regarding returns to be filed by an individual and also assessment procedure.

PSO8: Provide a sound understanding of the basic principles of marketing management and their applications in the business and industry.

PSO9: Apply different concepts in starting and managing business and realize the social responsibilities, social realities and inculcate an essential value system.

PSO10: Implement traditional and modern strategies and practices of costing, banking, economics, marketing, management, auditing and taxation.

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COURSE OUTCOMES
SEMESTER 1

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
CO1CRT01	**DIMENSIONS AND METHODOLOGY OF BUSINESS STUDIES**	**PSO5** **PSO9**	**CO1**- Acquire the knowledge in stages and development of business in the Indian Economy,Outsourcing –Recent economic initiatives. **CO2**- Familiarize and understand E-commerce, Types of E-commerce and Different E-payment Systems. **CO3**-Understand Business Ethics, Corporate Governance and argument in favor and against business ethics. **CO4**- Develop application skills in conducting research and preparation of research methodology, research reports. **CO5-** Understand business, its stakeholders and components of Business environment
CO1CRTO2	**FINANCIAL ACCOUNTING-1**	**PSO1** **PSO10**	**CO6 -**Acquire the knowledge in accounting principles and concepts. **CO7 -** Develop the application skills in computation of financial statements. **CO8**-Familiarize the analytical skills in preparation of final accounts of farming activities. **CO9 -**Understand the concepts like deferred revenue expenditure, invoice price delcredere commission. **CO10** - Gain confidence in preparation of Royalty account, consignment account, and valuation of stock.
CO1CRTO3	**CORPORATE REGULATIONS AND ADMINISTRATION**	**PSO2**	**CO11**-Acquire the knowledge about the types of company, legal frameworks of the company. **CO12**- Develop the application skills in online registration of companies, preparation of memorandum and articles of company to obtain membership in a company. **CO13** - Attain knowledge on rights and duties of shareholders, members and types of meetings in the companies. **CO14**- Familiarize on capital structure and the procedure of share allotment **CO15** - Acquire the knowledge on modes and procedure of winding up of companies.

C01CMT01	**BANKING AND INSURANCE**	**PSO10**	**CO16** -Acquire the knowledge about negotiable instruments, types of insurance, bancassurance models. **CO17** -Develop the practical skills in the operations of ATM, CDM, NEFT, and RTGS **CO18** -Obtain knowledge on credit creation, financial inclusion, endorsement, and crossing. **CO19** -Gain knowledge on various kinds of life insurance plans **CO20** -Understand about recent trends and innovations in the banking sector

SEMESTER 2

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
CO2CRT04	**FINANCIAL ACCOUNTING-2**	**PSO1** **PSO10**	**CO21-** To gain knowledge on preparation of accounts in the Hire purchase and Instalment system. **CO22-** To acquire the skill to prepare different types of branch accounts. **CO23**- To transform the accounting knowledge in preparing departmental accounting. **CO24**- To familiarize students with the procedure involved in the dissolution of partnership firms. **CO25-** To acquire application skills of important accounting standards.
CO2CRT05	**BUSINESS REGULATORY FRAMEWORK**	**PSO2** **PSO9**	**CO26**- Understand the role of law in economic, political and legal context. **CO27**- Understand the legal and fiscal structure of different forms of business organizations and their responsibilities as an employer. **CO28**- Analyze the relevance of law to individuals, business and organizations. **CO29**- Understand the laws related to consumer protection **CO30**-Gain knowledge about essentials of contract of sale goods, right of unpaid seller and transfer of property of goods

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CO2CRT06	**BUSINESS MANAGEMENT**	**PSO5 PSO9 PSO4**	**CO31**- Understand the concept & functions and importance of management and its application. **CO32**- To understand the corporate strategic planning techniques **CO33**- To acquire the knowledge on organization structure **CO34**- To familiarize with the different types of leadership. **CO35**- To acquaint students with various techniques of controlling and coordination management techniques like Quality Circle, TQM, BPR and Six Sigma
C02CMT02	**PRINCIPLES OF BUSINESS DECISIONS**	**PSO4 PSO10 PSO9**	**CO36**- To help the students to understand Decision-making and application of economic theories in decision-making **CO37**- To acquaint students with concept of demand, demand theory demands forecasting **CO38**- To impart idea about production function and analysis **CO39**- To enable the students to understand Cost analysis **CO40**- To make the students familiar with the pricing in different markets

SEMESTER 3

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
CO3CRT07	**CORPORATE ACCOUNTING-1**	**PS01 PSO10 PSO9**	**CO41**- Acquire the knowledge in company accounts such as meaning of a company, characteristics of a company, definition of shares, debentures, underwriting and goodwill, types of shares, bonus share, underwriting and liquidation. **CO42**-Understand the accounting treatment in issue of shares at par premium and discount, issues of debenture, managerial remuneration, calculation of goodwill and shares and liquidator's statement of affairs. **CO43**- Develop the application skills to computation of redemption of preference shares, profit and loss account and preparation of balance sheet of companies (new format). **CO44**- Familiarize the analytical skills in corporate accounting, calculation of underwriting commission, redemption of debentures in sinking fund method, valuation of shares and liquidators final statement **CO45**- Gain confidence in preparation of company accounts in new format, various methods for calculating goodwill and shares, and preparation of liquidator's final statement accounting.

CO3CRT08	**QUANTITATIVE TECHNIQUES FOR BUSINESS 1**	**PSO3**	**CO46**- To understand the basic concepts of statistics **CO47**- Develop application skills to carry out statistical surveys. **CO48-** Familiarizes students with knowledge about measures of central tendency. **CO49**- Learn the usage of measures of dispersion **CO50-**Gain Knowledge in interpolation and Extrapolation techniques.
CO3CRT09	**FINANCIAL MARKETS AND OPERATIONS**	**PSO6** **PSO8**	**CO51**-Enable the students with Financial Markets and its various segments. **CO52**- Understand about the operations and developments in financial markets in India. **CO53**- To acquaint them to gain an insight into the functioning and role of financial institutions in the Indian Economy **CO54** - Develop application skills for investment in mutual funds. **CO55**- To acquire knowledge about the various derivative instruments dealt in the Indian financial market.
CO3CRT10	**MARKETING MANAGEMENT**	**PSO8** **PSO10**	**CO56**- Develop practical knowledge and tactics in marketing. **CO57**- Analyze the basic concepts and trends in Marketing. **CO58**- Understand recent changes in the field of marketing. **CO59**- To acquire knowledge about relationship marketing, social marketing, Green Marketing, ambush marketing. **CO60-** To acquaint them to gain an insight on Logistic and supply chain management.
CO3OCT01	**GOODS AND SERVICES TAX**	**PSO10** **PSO7** **PSO2**	**CO61** – understand the concepts of GST,CGST, SGST, IGST **CO62**- Develop practical knowledge in filing Tax returns, payment of tax, procedure for registration. **CO63-** To acquaint them to gain knowledge on payment interest, penalty, TDS, TCS. **CO64**- Understand power of tax authorities, procedure for appeal to high court, offences, and penalties under Income Tax Act 1961. **CO65-** Develop practical knowledge in Registration, Returns and furnishing details of supplies.

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SEMESTER 4

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
CO4CRT11	**CORPORATE ACCOUNTING-1I**	**PSO1 PSO10**	**CO 66** - Acquire knowledge in banking and insurance company accounts. **CO 67**-Understand the accounting treatment in amalgamation, liquidator's final statement of accounts, preparation of revenue account, calculation of purchase consideration. **CO 68**- Develop the application skills to calculate profit and loss accounts, consolidated balance sheets of holding companies, preparation of balance sheets of banking and insurance companies. **CO 69-** Familiarize the analytical skills in corporate accounting, calculation of managerial remuneration, minority interest, general insurance and life insurance. **CO 70-** Gain confidence in preparation of company accounts, bank accounts, insurance company accounts, holding company accounts independently
CO4CRT12	**QUANTITATIVE TECHNIQUES FOR BUSINESS 1I**	**PSO3**	**CO 71**- Understand the concepts of time series , method of moving average, method of least squares **CO 72**- Develop application skills to calculate Karl Pearson's coefficient of correlations, Spearman's rank correlation , probable error . **CO 73-** familiarize analytical skills in laspeyer's method, fisher's method, uses of index numbers. **CO 74-** Understand probability , permutation and combinations and theorems of probability. **CO 75-** Acquire knowledge in bi variate data analysis
CO4CRT13	**ENTREPRENEUR SHIP DEVELOPMENT AND PROJECT MANAGEMENT**	**PSO5 PSO8 PSO9**	**CO76**- Develop entrepreneurial awareness among students. **CO77**- Motivate students to make their mind set for thinking entrepreneurship as career. **CO78-**To learn to design and appraise the project and factors influencing the plant location. **CO79-** To acquire the knowledge on formalities and documentation for registration **CO80-**To understand the government policies for the growth of SSIs

CO4OCT01	**FINANCIAL SERVICES**	**PSO6 PSO10**	**CO81-** To create basic idea about financial services and merchant baking **CO82** -Facilitate the knowledge about venture capital and securitization **CO83-** To understand the concept of leasing and factoring **CO84-** Familiarize with the credit rating and Methodology of the credit rating Agency. **CO85-** To aware about the concept of mergers and acquisitions

SEMESTER 5

Course Code	Course Title	PSO	Course Outcomes (CO)
CO5CRT14	**COST ACCOUNTING-1**	**PSO1 PSO10**	**CO86**- Understand Basic Cost concepts, Elements of cost and cost sheet. **CO87**- Develop knowledge about the difference between financial accounting and cost accounting. **CO88**- Develop application skills to the ascertainment of Material and Labour Cost. **CO89** - Impart Knowledge about the concepts and principles of cost accounting **CO90-** Understand LIFO, FIFO, ABC Costing
CO5CRT15	**ENVIRONMENT AND HUMAN RIGHTS**	**PSO9 PSO2**	**CO91** - To furnish awareness about environmental problems among people. **CO92**-Impart basic knowledge about the environment and its allied problems. **CO93**- Developing an attitude of concern for the environment. **CO94-** Acquiring skills to help the concerned individuals in identifying and solving environmental problems. **CO95-** Familiarize students with human rights
CO5CRT16	**FINANCIAL MANAGEMENT**	**PSO6 PSO10**	**CO96-**Describe the effects of decision making of finance manager on shareholders wealth maximization. **CO97-** Analyze the role of time value of money and its use for valuing assets and have a thorough understanding of financial statements and be able to evaluate and analyze cash flows statements. **CO98-**Interpret and illustrate the investment, financing and dividend policy decision making in an organization. Recall different procedures in deciding the best alternatives out of various alternatives. **CO99**-Appraise different capital budgeting methods and their applications. **CO100-**Examine the working capital needs and financing of the firm and apply methods to measure the operating efficiency of business.

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CO5OT01	**INCOME TAX-1**	**PSO2 PSO7 PSO10**	**CO101**- Understand the basic concept of income tax, functions of taxation and their rules and regulations. **CO102**-Develop knowledge and skills relating to the Indian tax system as applicable to individuals, single companies and groups of companies. **CO103-**Explain and compute the total income of individuals under five heads of income. **CO104-**Calculate Income tax using various deductions and exemptions. **CO105**-File returns, payment of taxes and understand due dates for payments and filing.
CO50CT05	**FUNDAMENTALS OF ECONOMICS**	**PSO4 PSO9 PSO10**	**CO106-**To familiarize the students with the basic concept of Macro Economics and its application. **CO107-** To aware students about Gross National Product (GNP), Net National Product (NNP) ,Income at Factor cost or National Income at Factor Prices ,Per Capita Income , Personal Income (PI) ,Disposable Income etc. **CO108-** To Study the relationship among broad aggregates. **CO109**-To apply economic reasoning to solve the problems of the economy **CO110-** In a team, work effectively to prepare a research report on consumer behaviour issues within a specific context.

SEMESTER 6

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
CO6CRT17	**COST ACCOUNTING-2**	**PSO1 PSO10**	**CO111-** To enable the students to understand about job costing, batch costing and contract costing. **CO112-** To understand the students the different operating methods to control and reduce cost of rendering services **CO113-** To inform the students about the methods of costing and also used to ascertain the cost at each stage of manufacturing **CO114**- To aware the students to analyse the behavior of cost in relation to changes in volume of Output **CO115-** To understand the students about the different tools in the hands of management for effective utilization of resources

CO6CRT18	**ADVERTISEMENT AND SALES MANAGEMENT**	**PSO8 PSO10**	**CO116-** By knowing about the various concepts related to advertisements, students will be able to identify misleading and false advertisements and will also get a general idea about framing advertisements. **C0117**- The students will acquire copy writing skills and will also be equipped with the ability to choose a particular medium for advertisement. **C0118**- The students will be able to decide an appropriate test for measuring the effectiveness of advertisement as they become aware of various tests for measuring the effectiveness of advertisements. **C0119**- Enable the students to prepare a sales promotion budget and the knowledge about various sales promotion strategies may benefit those students who dream of a career in salesmanship. **CO120**- The students will be able to formulate their own strategies to manage the sales force in their client organization.
CO6CRT19	**AUDITING AND ASSURANCE**	**PSO2 PSO10**	**CO121-**Understand Auditing, qualifications of an Auditor, Audit Standards. **CO122**- Gain practical knowledge in the preparation of Audit files,ownership and custody of working papers. **CO123**- Familiarize the terms like internal audit, vouching,audit general. **CO124**-Acquire knowledge in government audit,audit around computers. **CO125**- understand duties of an auditor, liabilities of an auditor, appointment and removal of an auditor.
CO6CRT20	**MANAGEMENT ACCOUNTING**	**PSO1 PSO6 PSO10**	**CO126** -Acquire knowledge in management accounting in the aspects of working capital, fund flow and cash flow statements, marginal costing, break even analysis, budgeting and budgetary control. **CO127** -Familiarize and understand the difference between financial and cost accounting versus management accounting, components of balance sheet and profit and loss account, fund flow versus cash flow statement. **CO128**-Develop the application skills to estimation of working capital, computation of contribution,P/V ratio, break even sales and margin of safety in the process of decision-making. **CO129**-Analyzing the financial statement using short-term, long-term, profitability ratios, factors determining working capital requirements, fund flow and cash flow statements and break even analysis. **CO130**- Preparation of cash flow and fund flow statement to evaluate cash and fund flow of the company, managerial applications of marginal costing.

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CO6OCT01	**INCOME TAX-2**	**PSO2** **PSO7** **PSO10**	**CO131**-To familiar with the computation of capital gain **CO132**- To familiar with the computation of income from other sources **CO133**- To know about the aggregation of income and deduction u/s 80C to 80U **CO134**- To know about the assessment of individuals **CO135**-To aware about the income tax authorities and their powers and duties.

ASSESSMENT TOOLS

1. End Semester Question Paper (Sample)

QP CODE: 19103064

B.Com. DEGREE (CBCS) EXAMINATION

First Semester
Core Course - CO1CRT01
DIMENSIONS AND METHODOLOGY OF BUSINESS STUDIES

Time: 3 Hours Maximum Marks: 80

Part A

*Answer any **ten** questions. Each question carries **2** marks.*

1. How does the government earn revenue through business units? (**Analyze) PSO1/CO1**
2. What is Environmental Analysis? **(Remembering) PSO1/CO5**
3. Explain the concept of the global business environment.(**understand) PSO1/CO5**
4. Give two arguments in favor of privatization. **(Remembering) PSO1/CO1**
5. Give two causes of globalization. **(Remembering) PSO1/CO1**
6. What do you mean by E-Commerce?**(Remembering) PSO1/CO2**
7. State the features of a shopping cart? **(understand)PSO1/CO2**
8. What is a Smart Card? **(Remembering) PSO1/CO2**
9. Find the meaning of stakeholder. **(Remembering) PSO1/CO5**
10. Conceptualise wealth maximization. **(Remembering) PSO1/CO3**
11. Research is to discover the truth. Comment. (**Analyze) PSO1/CO4**
12. State the principle objectives of research methodology. **(Remembering) PSO1/CO4**

Part B

Answer any six questions. Each question carries 5 marks.

13. Explain the features of public corporations.(Remembering)PSO1/CO3
14. "Business Environment is dynamic". Discuss.(Analyze)PSO1/CO5
15. Prepare short notes on "Economic Development."(understand)PSO1/CO1
16. Will outsourcing improve performance? **(Apply) PSO1/CO2**
17. Explain E-Business **(Remembering) PSO1/CO2**
18. What are the threats in M-Commerce? (**Analyze) PSO1/CO2**
19. Analyze the techniques to improve ethical practices in business. (**Analyze) PSO1/CO3**
20. Explain inductive and deductive research reasoning with examples.**(understand) PSO1/CO4**
21. Differences between pure research and applied research.**(Remembering)PSO1/CO4**

Part C

Answer any two questions. Each question carries 15 marks.

22. Discuss the various functions performed by an established business organization. (understand)PSO1/CO1
23. Explain the recent economic initiatives of the Government of India.(Analyze) PSO1/CO1
24. "Good corporate governance secures an effective and efficient operation of a company in the interest of all stakeholders"'. In the light of this statement discuss the need and importance of Corporate Governance.(Apply)PSO1/CO3
25. Explain the various steps involved in the research process.(Remembering)PSO1/CO4

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2. Internal Examination Question Paper (Sample)

ALPHONSA COLLEGE PALA
INTERNAL EXAMINATION- NOVEMBER 2022
Sixth Semester, B.COM Model 1 Finance and Taxation
BANKING AND INSURANCE

Time: 1 Hour Maximum Marks: 20

Part A

*Answer any **five** questions. Each question carries **2** mark.*

1. Who is a banking ombudsman? (Remembering) PSO4/CO16
2. List types of deposits ? **(Remembering) PSO4/CO16**
3. Define Banking. **(Understanding) PSO4/CO16**
4. Explain the note issue function of the central bank. **(Understanding) PSO4/CO18**
5. Explain the term cash credit. **(Understanding) PSO4/CO18**
6. What is the bank rate? **(Understanding) PSO4/CO18** **(1x5=5)**

Part B- Answer Any One

The Question Carries **5** Mark

7. Compare assignment and nomination of insurance policy? **(Analysing)PSO4/CO19** **(5x1=5)**

Part C- Answer Any One

The Question Carries **10** Mark

9. Every loan creates a deposit. And every deposit creates a loan **(Evaluating)PSO4/CO17**
10. Develop the Fourth Basel Norm based on existing three norms.**(Creating)PSO4/CO20** **(10x1=10)**

3. ASSIGNMENT (SAMPLE)

Name of the Student:

Programme:

Class:

Class no:

Register number:

SL NO	ASSIGNMENT	EXCELLENT (5)	VERY GOOD (4)	GOOD (3)	AVERAGE (2)	BELOW AVERAGE (1)
1	RELEVANCE OF THE TOPIC		4			
2	CONTENT			3		
3	SYSTEMATIC PRESENTATION		4			
4	TIMELY SUBMISSION	5				

4. SEMINAR (SAMPLE)

Name of the Student:

Programme:

Class:

Class no:

Register number:

SL NO	SEMINAR	EXCELLENT (5)	VERY GOOD (4)	GOOD (3)	AVERAGE (2)	BELOW AVERAGE (1)
1	CONTENT		4			
2	METHODOLOGY			3		
3	TECHNOLOGY				2	
4	PRESENTATION SKILLS		4			
5	COMMUNICATION			3		
6	INTERACTION				2	

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5. PROJECT EVALUATION (SAMPLE)

Name of the Student:

Programme:

Class:

Class no:

Register number:

SL NO	SEMINAR	EXCELLENT (5)	VERY GOOD (4)	GOOD (3)	AVERAGE (2)	BELOW AVERAGE (1)
1	RELEVANCE OF TOPIC		4			
2	STATEMENT OF OBJECTIVES			3		
3	METHODOLOGY			3		
4	PRESENTATION OF FACTS AND FIGURES		4			
5	QUALITY OF ANALYSIS			3		
6	VIVA VOCE		4			

PSO- CO MAPPING

(No Correlation-0, Slight Correlation-1, Moderate Correlation-2, Substantial Correlation-3)

SEMESTER 1

Dimensions and Methodology of Business Studies

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1					2				3	
CO_2					1				1	
CO_3					-				3	
CO_4					3				2	
CO_5					2				1	

FINANCIAL ACCOUNTING-1

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	2									2
CO2	1									3
CO3	3									1
CO4	-									2
CO5	2									3

CORPORATE REGULATIONS AND ADMINISTRATION

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		2								
CO2		3								
CO3		1								
CO4		2								
CO5		2								

BANKING AND INSURANCE

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1										1
CO2										3
CO3										2
CO4										2
CO5										3

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SEMESTER 2

FINANCIAL ACCOUNTING-2

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1									3
CO2	3									2
CO3	2									2
CO4	2									1
CO5	3									1

BUSINESS REGULATORY FRAMEWORK

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		2							3	
CO2		2							2	
CO3		3							3	
CO4		1							2	
CO5		1							2	

BUSINESS MANAGEMENT

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1				2	3				2	
CO2				3	1				2	
CO3				1	1				3	
CO4				2	2				3	
CO5				3	1				1	

PRINCIPLES OF BUSINESS DECISIONS

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1				2					2	3
CO2				3					2	2
CO3				1					3	2
CO4				2					3	1
CO5				2					3	1

SEMESTER 3

CORPORATE ACCOUNTING-1

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1				2					2	3
CO2				3					2	2
CO3				1					3	2
CO4				2					3	1
CO5				2					3	1

QUANTITATIVE TECHNIQUES FOR BUSINESS 1

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1			2							
CO2			2							
CO3			3							
CO4			3							
CO5			1							

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FINANCIAL MARKETS AND OPERATIONS

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1						2		3		
CO2						2		2		
CO3						1		2		
CO4						3		3		
CO5						3		1		

MARKETING MANAGEMENT

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1								3		3
CO2								3		2
CO3								2		1
CO4								2		1
CO5								3		2

GOODS AND SERVICES TAX

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		2					3			2
CO2		2					3			
CO3		3					2			3
CO4										1
CO5		1					2			2

SEMESTER 4

CORPORATE ACCOUNTING-II

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3									2
CO2										2
CO3	2									3
CO4	1									1
CO5	1									2

QUANTITATIVE TECHNIQUES FOR BUSINESS II

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1			2							
CO2			3							
CO3			1							
CO4										
CO5			2							

ENTREPRENEURSHIP DEVELOPMENT AND PROJECT MANAGEMENT

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1					3			3	2	
CO2					2			2	2	
CO3					2			2	3	
CO4					1				1	
CO5					1			1		

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FINANCIAL SERVICES

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1						2				3
CO2										2
CO3						2				1
CO4						1				1
CO5						1				

SEMESTER 5

COST ACCOUNTING-1

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3									1
CO2	3									1
CO3	2									2
CO4										3
CO5	1									3

ENVIRONMENT AND HUMAN RIGHTS

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		3							3	
CO2		2							3	
CO3		2							2	
CO4		1							2	
CO5		1							1	

FINANCIAL MANAGEMENT

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1						1				3
CO2						1				3
CO3						2				2
CO4						2				2
CO5						3				1

INCOME TAX-1

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		3								3
CO2							2			2
CO3		2					2			
CO4		2					1			1
CO5		1					1			

FUNDAMENTALS OF ECONOMICS

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1				3					3	2
CO2				3					2	2
CO3				2					1	
CO4				1					1	3
CO5				1					2	1

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SEMESTER 6

COST ACCOUNTING-2

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3									
CO2	2									3
CO3										2
CO4	1									1
CO5	1									1

ADVERTISEMENT AND SALES MANAGEMENT

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1								3		3
CO2								2		
CO3										2
CO4								1		1
CO5								2		

AUDITING AND ASSURANCE

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		3								3
CO2		2								3
CO3		1								2
CO4		3								2
CO5		1								1

MANAGEMENT ACCOUNTING

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3					2				2
CO2	1					2				3
CO3	1									2
CO4						3				1
CO5	2					1				1

INCOME TAX-2

SL NO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1		2					2			3
CO2		3					1			2
CO3		3					3			
CO4		2					1			1
CO5		1								1

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B.sc. Botany - Model 1

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1	Understand origin of life, evolution, morphology, life cycle and economic importance of organisms from microbes to higher plants and categorize them.
PSO2	Understand the structure and function of cells and biomolecules, principles of life processes, and biochemical reactions.
PSO3	Evaluate the principles of heredity, anatomical features and reproductive processes in plant groups.
PSO4	Develop environmental consciousness and understand human rights
PSO5	Explain the techniques of Plant Biotechnology and Bioinformatics.
PSO6	Develop scientific aptitude and undertake research projects.
PSO7	Practice basic laboratory skills in Botany and Demonstrate the techniques of Biophysics, Biostatistics, Bioinformatics, Plant breeding and horticulture.
PSO8	Enable students to become self-reliant by developing expertise in the application of botany in research and entrepreneurship.

COURSE OUTCOMES (Cos)

Course Code	Course Title	PSO	Course Outcome	
BO1CRT01	Methodology of science and introduction to Botany	PSO1 PSO2 PSO3 PSO6 PSO7 PSO8	CO1.1	Recall fundamental knowledge in plant science and diversity of plants.
			CO1.2	Understand the universal nature of science.
			CO1.3	Demonstrate the use of scientific method.
			CO1.4	Practice basic skills to study Botany..
BO2CRT02	Microbiology, Mycology and Plant Pathology	PSO1 PSO2 PSO6 PSO7 PSO8	CO2.1	Understand the basics of microbiology
			CO2.2	Understand the salient features,reproduction lifecycle and economic importance of fungi .
			CO2.3	Illustrate the pathological importance of microorganisms.
			CO2.4	Enable the students to identify and culture different types of microbes.

BO3CRT03	Phycology And Bryology	PSO3 PSO6 PSO7	CO3.1	Illustrate the evolutionary importance of Algae as progenitors of land plants
			CO3.2	Recall the unique and general features Algae and Bryophytes and familiarize it
			CO3.3	Explain the external morphology, internal structure and reproduction of different types of Algae and Bryophytes
			CO3.4	Discuss the application of Phycology in different fields
BO4CRT04	Pteridology, Gymnosperms And Paleobotany	PSO1 PSO6 PSO7	CO4.1	Understand the diversity in habits, habitats and organization of various groups of plant
			CO4.2	Study the modern classifications in lower forms of plants
			CO4.3	Understand the evolutionary trends and anatomical variations Pteridophytes, Gymnosperms and Vascular plants.
			CO4.4	Understand the significance of Paleobotany and its applications.
BO5CRT05	Anatomy, Reproductive Botany And Microtechnique	PSO1 PSO2 PSO3 PSO6 PSO7 PSO8	CO5.1	Imparting an insight into the internal structure and reproduction of the most evolved group of plants, the Angiosperm.
			CO5.2	Understand the plant development from individual cells to fruit.
			CO5.3	Understand the structural adaptations in plants growing in different environment
			CO5.4	Understand the techniques used to preserve and study plant materials.
BO5CRT06	Research Methodology, Biophysics And Biostatistics	PSO6 PSO7 PSO8	CO6.1	Equip the students to conduct independent research and prepare research reports
			CO6.2	Make the students acquaint with different tools and techniques used in research work.
			CO6.3	Equip the students with basic computer skills necessary for conducting research.
			CO6.4	Enable the students to have enough numerical skills necessary to carry out research.

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BO5CRT07	Plant Physiology And Biochemistry	PSO1 PSO2 PSO3 PSO6 PSO7 PSO8	CO7.1	Acquire the basic knowledge of plant functioning
			CO7.2	Understand the basic skills and techniques related to plant physiology
			CO7.3	Understand the role of the bio molecules in plant life.
			CO7.4	Study the, structure and importance of the bio molecules associated with plant life.
BO5CRT08	Environmental Science And Human Rights	PSO1 PSO3 PSO7 PSO8	CO8.1	Explain the characteristics of population and community and the structure, function and development of the ecosystems.
			CO8.2	Understand the extent of total biodiversity and evaluate various biodiversity management strategies and conservation efforts.
			CO8.3	Discuss the various factors leading to Environmental degradation and role of environmental laws, individuals and organizations in the protection of nature and natural resources.
			CO8.4	Describe the concept and significance of human rights and various provisions under the Constitution of India dealing with human rights.
BO6CRT09	Genetics, Plant Breeding And Horticulture	PSO3 PSO4 PSO6 PSO7 PSO8	CO9.1	Understand the principles of heredity and the concept of population genetics
			CO9.2	Discuss the chromosomal, extra-chromosomal and sex linked patterns of inheritance in different organisms.
			CO9.3	Explain the various techniques of plant breeding and gardening.
			CO9.4	Practice various methods of plant propagation.

BO6CRT10	Cell And Molecular Biology	PSO2 PSO4 PSO6 PSO7 PSO8	CO10.1	Understand the ultra structure and functioning of cell in the sub-microscopic and molecular level
			CO10.2	Familiarization of life processes and get an idea of origin, concept of continuity and complexity of life activities.
			CO10.3	Understand the basic scientific aspect of diversity and the cytological aspects of growth and development.
			CO10.4	Understand DNA as the basis of heredity and variation.
BO6CRT11	Angiosperm Morphology, Taxonomy And Economic Botany	PSO3 PSO4 PSO6 PSO7 PSO8	CO11.1	Acquaint with the aims, objectives and significance of taxonomy.
			CO11.2	Identify the common species of plants growing in Kerala
			CO11.3	Develop inductive and deductive reasoning ability
			CO11.4	Acquaint with the basic technique in the preparation of herbarium.
BO6CRT12	Biotechnology And Bioinformatics	PSO4 PSO5 PSO6 PSO7 PSO8	CO12.1	Understand the current developments in the fieldof Biotechnology and Bioinformatics.
			CO12.2	Equip the students to carry out plant tissue culture.
			CO12.3	Introduce the vast repositories of biological data knowledge.
			CO12.4	Equip to access and analyze the data available in the databases.

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BO6PET01	Agribusiness	PSO4 PSO6 PSO8	CO13.1	Inculcate and impart an idea about the business opportunities in the field of plant sciences.
			CO13.2	Apply an entrepreneurial mindset and also to stick on to the core subject among the Botany students
			CO13.3	Recognize the need of sustainable development and organic farming
			CO13.4	Identify the opportunities and potentials in the field of ecotourism, processing technology and food sciences.

OPEN COURSE

BO5OPT01	Agri-Based Micro-enterprises		CO14.1	Describe the basic information about the business opportunities in plant sciences.
			CO14.2	Discuss the student about sustainable agriculture and organic farming.
			CO14.3	Inculcate an enthusiasm and awareness about ornamental gardening and nursery management.
			CO14.4	Demonstrate the techniques of mushroom cultivation.

COMPLEMENTARY COURSES

Course Code	Course Title	PSO	Course Outcome	
BO1CMT01	**CRYPTOGAMS, GYMNOSPERMS AND PLANT PATHOLOGY**		CO1.C1	Illustrate fundamental knowledge in plant science and to make the student to understand that Botany is an integral part of the human life and developments.
			CO2.C1	Explain various life forms of plants
			CO3.C1	Understand the identifying characters of the different types included in the syllabus.
			CO4.C1	Explain the diversity of plants with respect to Algae, Fungi, Lichens, Bryophytes, Pteridophytes and Gymnosperms.

BO2CMT02	**PLANT PHYSIOLOGY**		CO1.C2	Describe the importance of all physiological processes which take place in plants.
			CO2.C2	Understand the mechanism of various physiological processes related to plant life.
BO3CMT03	**ANGIOSPERM TAXONOMY AND ECONOMIC BOTANY**		CO1.C3	Acquaint the student with the objectives of Taxonomy.
			CO2.C3	Understand the systems of classification of angiosperms.
			CO3.C3	Identify the common angiosperm species of Kerala
			CO4.C3	Familiarize the plants of immense economic importance
BO4CMT04	**ANATOMY AND APPLIED BOTANY**		CO1.C4	Understand different types of plant tissues.
			CO2.C4	Understand the internal structure of different plant organs and their functions.
			CO3.C4	Study the morphological and anatomical adaptations of plants growing in different habitats.
			CO4.C4	Apply the botanical knowledge for crop improvement.

CO AND PSO MAPPING

B Sc BOTANY
SEMESTER 1 BO1CRT01
Methodology of science and introduction to Botany

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1.1	3		1			2		1
CO1.2	2	2	1			3		
CO1.3	1					3		
CO1.4	2					2	3	3

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SEMESTER 2 BO2CRT02
Microbiology, Mycology and Plant Pathology

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO2.1	3	1				1	1	
CO2.2	3						2	1
CO2.3	3						2	
CO2.4	2	1				2	3	2

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 3 BO3CRT03
Phycology And Bryology

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO3.1	3					1	1	
CO3.2	3							
CO3.3	3					1	2	
CO3.4	3						2	

SEMESTER 4 BO4CRT04
Pteridology, Gymnosperms And Paleobotany

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO4.1	3							
CO4.2	3							
CO4.3						2	3	
CO4.4	2							

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 5 BO5CRT05
Anatomy, Reproductive Botany And Microtechnique

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO5.1		1	3			1	2	
CO5.2	1		3					
CO5.3	3		1					
CO5.4						1	3	1

SEMESTER 5 BO5CRT06
Research Methodology, Biophysics And Biostatistics

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO6.1						3	2	1
CO6.2							3	2
CO6.3						3		2
CO6.4						3		2

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 5 BO5CRT07
Plant Physiology And Biochemistry

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO7.1	1	3						
CO7.2		1				2	3	1
CO7.3	1	3				2		
CO7.4	1	3						

SEMESTER 5 BO5CRT08
Environmental Science And Human Rights

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO8.1	1			3		1		
CO8.2	1			3				1
CO8.3				3		1		2
CO8.4				3				1

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 6 BO6CRT09
Genetics, Plant Breeding And Horticulture

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO9.1			3	1				
CO9.2			3			1	1	
CO9.3				1			2	3
CO9.4						2	3	3

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SEMESTER 6 BO6CRT10
Cell And Molecular Biology

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO10.1		**3**				**1**	**3**	**1**
CO10.2		**3**				**1**		
CO10.3		**3**		**1**		**1**	**2**	
CO10.4		**3**					**2**	

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 6 BO6CRT11
Angiosperm Morphology, Taxonomy And Economic Botany

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO11.1	**3**			**1**		**1**		**1**
CO11.2	**3**			**1**				
CO11.3						**3**		
CO11.4				**1**			**3**	**1**

SEMESTER 6 BO6CRT12
Biotechnology And Bioinformatics

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO12.1					**3**	**2**	**2**	**2**
CO12.2					**3**		**2**	**3**
CO12.3				**1**	**3**		**3**	
CO12.4					**2**	**2**	**3**	**1**

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 6 BO6PET01
Agribusiness

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO13.1				1				3
CO13.2						1		3
CO13.3				3				2
CO13.4						2		3

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

EVALUATION STRATEGIES

ASSESSMENT TOOLS

1. CLASS TEST

(SAMPLE INTERNAL EXAM QUESTION PAPER)

ALPHONSA COLLEGE PALA

FIRST INTERNAL EXAMINATION – June 2023

SEMESTER V BOTANY (CORE BO5CRT06)

RESEARCH METHODOLOGY, BIOPHYSICS AND BIOSTATISTICS

Time : 1 Hr Marks : 20

Part A (Each question carries two marks)

I. Answer any five

1. Define sampling ? (Remembering) PSO7/CO6.4
2. Name any two reputed international journals in lifesciences? (Remembering) PSO6/CO6.1
3. Differentiate between pure and applied research (Understanding)PSO6/CO6.1
4. State Beer–Lambert law (Remembering) PSO7/CO6.2
5. What is the purpose of literature review (Understanding) PSO6/CO6.1

(5 × 1 =5marks)

Part B (Each question carries 5 marks)

II. Answer any One

6. Plant height of 80 individuals have been assessed from normal, X (5kR) and gamma (5kR) irradiated populations and the data obtained have been given below:

Plant height (cm)	*Control*	*x-rays*	*Gamma-rays*
0–10	5	15	20
10–20	10	30	15
20–30	15	10	2
30–40	25	8	5
40–50	12	7	6
50–60	8	6	2
60–70	5	3	25
70–80	0	1	5

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Find out mean and draw your conclusions after analyzing the above data (analyzing) PSO7/CO6.4

7. Summarise the uses of electron microscopy in various biological research problems (Evaluate) PSO7/CO6.2 (1 × 5 = 5 marks)

Part C (Each question carries 10 marks)

II. Answer any One

8. Identify a research problem based on a plant disease and make a study design (create) PSO8/CO6.1

9. The amount of rainfall in a particular season for 6 days is 17.8 cm, 19.2 cm, 16.3 cm, 12.5 cm, 12.8 cm and 11.4 cm.

   a. Calculate the sample mean.

   b. Calculate the sample median.

   c. Calculate the sample standard deviation.(Apply) PSO7/CO6.4

(1 × 10 = 10 marks)

2. END SEMESTER EXAM (UNIVERSITY EXAM QUESTION PAPER)

B.Sc DEGREE (CBCS) EXAMINATIONS

Fifth Semester

CORE COURSE-BOSCRT06-RESEARCH METHODOLOGY, BIOPHYSICS AND BIOSTATISTICS

Max. Marks: 60 Time: 3 Hours

Part A

Answer any ten questions. Each question carries 1 mark

1. What is the purpose of doing research? (Understand) PSO6/CO6.1

2. Name any one primary data collection method? (Remember)PSO6/CO6.1

3. What is LINUX? (Remember) PSO7/CO6.4

4. Calculate mean of the given data.(Apply)) PSO7/CO6.4

Roll no	1	2	3	4	5	6	7	8	9	10
Marks in botany	67	69	66	68	72	63	76	65	70	74

5. Name the shortcut key for pasting a copied object? (Remember) PSO7/CO6.3

6. What is bar diagram? (Remember)) PSO7/CO6.4
7. What is Libre Office? (Remember) PSO7/CO6.3
8. Name a fixative used in light microscopy. (Remember) PSO7/CO6.2
9. What is homogenization? (Remember) PSO7/CO6.2
10. Give any one example of tracking dye used in PAGE. (Remember) PSO7/CO6.2
11. What is counting chamber? (Remember) PSO7/CO6.2
12. Define secondary data? (Remember) (10+1=10)

PART B

Answer any SIX questions. Each question carries 5 marks

13. Discuss various criterias for the selection of a research problem (Understand) PSO6/CO6.1
14. List out the principles of experimental designs (Remember) PSO6/CO6.1
15. Illustrate how to prepare a pie diagram using MS-Excel for the following data. (Analyse) PSO7/CO6.4
16. Justify the major advantages of powerpoint presentations for academic presentation. (Evaluate) PSO7/CO6.3
17. How will you calculate the Rf value of chlorophyll if you are supplied with 1ml of leaf pigment. (Apply)PSO7/CO6.2
18. Mention about different kinds of centrifuge. (Remember) PSO7/CO6.2
19. Explain the principle and working pH meter. (Understand)) PSO7/CO6.2
20. What is line diagram? (Remember) PSO7/CO6.4
21. What is DNAi? (Remember) PSO6/CO6.1 (6×5-30)

Part C

Answer any two questions. Each question carries 10 marks.

22. Design a layout of research report based on the topic allelopathy? (Create)PSO6/CO6.1
23. Illustrate the technique used for cell fractionation. (Analyse) PSO7/CO6.2
24. Discuss the principle, working and application of pH meter. (Understand) PSO7/CO6.2

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25. Calculate the standard deviation of the given data. (Apply) PSO7/CO6.4

class	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
frequency	30	58	62	85	112	70	57	26

(2×10-20)

3. PRACTICAL (SAMPLE FORMAT)

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Theoretical Knowledge					
Setting up of experiment					
Observations and Inference					
Submission of record					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

4. SEMINAR

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average/ Needs improvement
Content					
Presentation					
Use of technology					
Communication					
Interaction and Discussion					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

5. ASSIGNMENT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
Content					
Presentation					
Methodology					
Punctuality					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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6. VIVA

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Knowledge about the topic					
No of answered questions					
Presentation					
Time taken					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

7. PROJECT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
Content					
Methodology and References					
Report					
Punctuality					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

8. FIELD VISIT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Planning					
Involvement					
Interaction					
Report					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

9. QUIZ

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

Excellent ≥90%	Very Good ≥80%	Good ≥ 65%	Average ≥ 50%	Below Average < 50%

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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10. REFLECTIVE JOURNAL

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

Sl.no	Date	Content outline	Learning strategies	Reflections	Remarks of teacher
1					
2					
3					

B.Voc. Sports Nutrition and Physiotherapy

VISION

To empower the students with holistic knowledge and practical skills .

MISSION

To guide them to march towards their goals by uploading the values of social progress and commitment.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

B.Voc. Sports Nutrition and Physiotherapy	
PSO1	Execute the ability to acquire knowledge about normal- abnormal basic medical and human movement sciences, understand relevant investigations, role of drugs related to various medical conditions, surgical treatment and application of physiotherapy interventions.
PSO2	Demonstrate sufficient understanding of knowledge in Physiotherapy.
PSO3	Apply the Ability to reflect theoretical and practical knowledge on assessment planning, frame appropriate electrotherapeutic and exercise therapy management for the implementation in physiotherapy practice requiring for patient rehabilitation.
PSO4	Demonstrate an understanding of role of nutrition in public health.
PSO5	Understand moral value, professional ethics and accountability towards patient and colleagues ,develop good behaviours skills with confidentiality and humanitarian approach, maintaining the respect and privacy of patient.
PSO6	Demonstrate the ability to provide evidence based practice for prevention, correction and rehabilitation of the patient.
PSO7	Demonstrate the ability to acquire good listening potential with effective interpersonal and intra personal communication skills in various inter professional collaborative settings.

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PSO8	Demonstrate ability to acquire new knowledge skill and reflect upon their experience to enhance personal,professional growth and apply the information for patient care.
PSO9	Explain the concepts of food and nutrition and apply it in different areas like sports, family and hospital.
PSO10	Understand principles of scientific sports nutrition to be applied in the field of performance enhancement.

COURSE OUTCOME

SEMESTER I				
COURSE CODE	COURSE TITLE	PSO	CO	COURSE OUTCOME
SNPT1G1	Basic Nutrition	PSO9	S1CO1	Remember the main nutrients and its functions in the body.
		PSO9	S1CO2	Understand the digestion of different nutrients in the body.
		PSO9	S1CO3	Apply basic nutrition knowledge in making food choices and obtaining an adequate diet.
		PSO9	S1CO4	Remember the importance of macro and micronutrients in the body
SNPT1S1	Human Physiology-I	PSO8	S1CO1	Understand the basis of normal human physiology with special emphasis on the functioning of the cardiovascular, musculo-skeletal and nervous systems.
		PSO1	S1CO2	Demonstrate an understanding of elementary human physiology and Bio-Chemistry.
		PSO6	S1CO3	Apply the skill of basic clinical examination of PNS, CNS, CVS & Respiratory system.
SNPT1S2	Human Anatomy-I	PSO8	S1CO1	Understand the Anatomical basis of clinical conditions of Nervous system,
		PSO3	S1CO2	Musculoskeletal system & cardiovascular & Respiratory system.
		PSO1	S1CO3	Apply the gross anatomy knowledge while treating the patients.

				Analyze the movements, structures of various CNS trans – sections, course of peripheral nerves & mechanism of Respiration
SNPT1S3	Human Anatomy - I PRACTICAL	PSO3	S1CO1	Comprehend the normal disposition, inter-relationships, gross, functional and applied anatomy of the musculoskeletal system, locomotion, posture, gait and various organs in the body
		PSO6	S1CO2	Application of knowledge of anatomy on the living being

SEMESTER II				
SNPT2G1	Biomechanics	PSO1	S2CO1	Analyze normal human movement from a global perspective, integrating biomechanics, muscle mechanics and motor control theory.
		PSO1	S2CO2	Examine quantitative methods of movement analysis using various methods.
		PSO1	S2CO3	Apply the analytic methods to specific example of normal human motor performance, kinetics and kinematics.
		PSO2	S2CO4	Develop methods for evaluation and treatment of disorders of the musculoskeletal system.
SNPT2G2	Family Meal Management	PSO9	S2CO1	Understand principles of meal planning
		PSO4	S2CO2	Apply knowledge on planning meals for different age groups
		PSO4	S2CO3	Remember the nutrient requirements for different age groups
		PSO4	S2CO4	Understand the nutritional management of different life stages
SNPT2S4	Exercise Therapy	PSO1	S2CO1	Understand high quality, ethical, effective, and cost efficient practices by students and gain expertise in the exercise prescription to patients.

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		PSO1	S2CO2	Practice various assessment strategies like Goniometry, Tone assessment, Muscle power assessment etc for detailed learning.
		PSO1	S2CO3	Understand principles and procedures, appropriate methods of application of each of the assessment strategy and treatment techniques hands on and on models.
		PSO5	S2CO4	Communicate with the patient in a professional and ethical manner.

SEMESTER III				
SNPT3G1	Therapeutic Nutrition	PSO5	S3CO1	Understand the role of dietitian
		PSO9	S3CO2	Apply knowledge in diet counseling
		PSO9	S3CO3	Apply dietetic principles in the planning of diet for various diseases
		PSO9	S3CO4	Understand the importance of diet in management of different diseases
SNPT3G2	General Psychology and Sports Psychology	PSO7	S3CO1	Analyse human behavior and its different states.
		PSO7	S3CO2	Importance of effective communication with patients.
		PSO6	S3CO3	Apply effective handling of patients and their emotional states.
		PSO5	S3CO4	Recognise the factors affecting sports performance
SNPT3G2	General Psychology and Sports Psychology	PSO7	S3CO1	Analyse human behavior and its different states.
		PSO7	S3CO2	Importance of effective communication with patients.
		PSO6	S3CO3	Apply effective handling of patients and their emotional states.
		PSO5	S3CO4	Recognise the factors affecting sports performance

SNPT3S1	Exercise Physiology and Fitness	PSO3	S3CO1	Develop a comprehensive periodized exercise program based on energy and sport demands.
		PSO1	S3CO2	Understanding risk management and liability within the athletic environment
SNPT3S2	Exercise Physiology and Fitness Practical	PSO6	S3CO1	Practically apply the acquisition of knowledge in a professional setting.
		PSO6	S3CO2	Create a safe, progressive, methodological and efficient activity based plan to enhance improvement and minimize risk of injury
SNPT3S3	Clinical Orthopaedics and Sports Medicine-1	PSO3	S3CO1	Demonstrate comprehensive understanding of skeletal system including bones and joints.
		PSO6	S3CO2	To identify the surgical procedures
		PSO8	S3CO3	Provide care to the patient in efficiently and cost effective way.

SEMESTER IV				
SNPT4G1	Food Science	PSO4	S4CO1	Understand the raw and processed food commodities used in daily life
		PSO9	S4CO2	Understand the factors affecting sugar cookery
		PSO4	S4CO3	Understand the nutrient content in various foods
		PSO9	S4CO4	Understand the importance of diet in management of different diseases
SNPT4G2	First Aid(AOC)	PSO3	S4CO1	Understand the principles of first aid and demonstrate skill in giving first aid treatment in emergencies that may be met in the community and in their practice as therapists.
		PSO1	S4CO2	Understand concept of Emergency Definition importance and rules, code tags and triage terminology.
		PSO2	S4CO3	Explain the importance of first aid in physiotherapy

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SNPT4S1	Advanced Sports Physiotherapy	PSO6	S4CO1	Apply rehabilitation protocol for sports specific injuries focusing an early rehabilitation to injuries.
		PSO2	S4CO2	Understand the role of Sports physiotherapist in the team
		PSO2	S4CO3	Identify the causes prone for injury & prevent them
SNPT4G1	Electrotherapy	PSO5	S4CO1	Understand the principles, technique and effects of electrotherapy as a therapeutic modality in the restoration of physical function in condition like nerve injuries.
		PSO5	S4CO2	List the indications and contra-indications of various types of electrotherapy, demonstrate different techniques and describe their effects.
		PSO5	S4CO3	Identify the construction, Biophysical principles and effects , dangers, safety measures, judicial use, appropriate methods of application ,contraindications of the various low frequency equipments.
		PSO5	S4CO4	Apply different electrotherapy equipments .

SEMESTER V				
SNPT5G1	Community Nutrition	PSO4	S5CO1	Understand different nutritional programmes overcoming malnutrition
		PSO4	S5CO2	Remember the various nutritional problems faced by our country
		PSO9	S5CO3	Apply knowledge in assessing nutritional status
		PSO4	S5CO4	Analyze the problem of malnutrition

SNPT5G2	Basic Nursing and Health Promotion	PSO8	S5CO1	Understand the basic nursing care of patient
		PSO3	S5CO2	Understand the treatment modalities and therapies used in hypokinetic disorders
		PSO6	S5CO3	Understand the health hazards ,safety measures and its management
SNPT5S2	Physiotherapy in Orthopaedics	PSO3	S5CO1	Understand relevant investigations technique which will help to diagnose various Orthopedic conditions
		PSO1	S5CO2	Constitute to integrate the theoretical knowledge with clinical assessment.
		PSO1	S5CO3	Demonstrate clinical decision making ability and treat different musculoskeletal, conditions.
		PSO2	S5CO4	Understand the role of Sports physiotherapist in the team.
SNPT5S3	Physiotherapy in Neurology &Neurosurgery	PSO3	S5CO1	Understand relevant investigations technique which will help to diagnose various neurologic conditions.
		PSO1	S5CO2	Constitute to integrate the theoretical knowledge with clinical assessment.
		PSO1	S5CO3	Demonstrate clinical decision making ability and treat different neurologic conditions.
		PSO2	S5CO4	Understand the role of Sports physiotherapist in the team.
SNPT5S4	Physiotherapy in General medicine and Cardiothoracic conditions	PSO3	S5CO1	Understand relevant investigations technique which will help to diagnose various cardiothoracic conditions
		PSO1	S5CO2	Constitute to integrate the theoretical knowledge with clinical assessment.
		PSO1	S5CO3	Demonstrate clinical decision making ability and treat different cardiothoracic conditions.
		PSO2	S5CO4	Understand the role of Sports physiotherapist in the team.

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SEMESTER VI				
SNPT6G2	Weight Management and Rehabilitation (AOC)	PSO6	S6CO1	Recognize current evidence-based recommendations for assessment and treatment of weight management
		PSO9	S6CO2	Recognize current research evaluating the efficacy of leading popular diets and diet approaches for weight management
		PSO2	S6CO3	List the current public health guidelines for moderate and vigorous physical activity for adults.
SNPT6S2	Sports Nutrition	PSO10	S6CO1	Remember the links between nutrition and performance in sports and exercise
		PSO9	S6CO2	Understand the relation between physical activity, nutrition and health
		PSO10	S6CO3	Identify the importance of hydration in sports performance
		PSO9	S6CO4	Understand the nutrition related disorders of athelets
SNPT6S5	Clinical Posting	PSO3	S6CO1	Utilise skills such as executing different methods of of patient handling.
		PSO6	S6CO2	Understand the ability to work independently or collaboratively as a part of rehabilitation team.
		PSO7	S6CO3	Execute the ability to work effectively in various inter professional collaborative settings .

CO & PSO MAPPING

SEMESTER I

BASIC NUTRITION

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	1	0	0	0	0	2	1
CO2	0	0	0	1	0	0	0	0	2	1
CO3	0	0	0	1	0	0	0	0	3	1
CO4	0	0	0	1	0	0	0	0	3	1

HUMAN PHYSIOLOGY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	2	0	2	0	0	0	0	3	0	0
CO2	2	0	0	0	0	0	0	1	0	0
CO3	3	0	0	0	0	0	0	2	0	0

ANATOMY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	2	0	2	0	0	1	0	3	0	0
CO2	2	0	3	0	0	3	0	1	0	0
CO3	2	0	3	0	0	1	0	2	0	0

HUMAN ANATOMY AOC

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	2	0	2	0	0	0	0	3	0	0
CO2	2	0	0	0	0	0	0	1	0	0

SEMESTER II

BIOMECHANICS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	1	0	0	2	1	0	0	0	0
CO2	3	0	0	0	2	1	0	0	0	0
CO3	0	1	0	0	1	1	0	0	0	0
CO4	0	1	0	0	3	1	0	0	0	0
CO5	0	3	0	0	1	1	0	0	0	0

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FAMILY MEAL MANAGEMENT

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	1	0	0	0	0	3	0
CO2	0	0	0	1	0	0	0	0	3	0
CO3	0	0	0	1	0	0	0	0	2	0
CO4	0	0	0	1	0	0	0	0	2	0

EXERCISE THERAPY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	1	0	0	0	1	0	0	0	0
CO2	3	1	0	0	0	1	0	0	0	0
CO3	3	1	0	0	0	1	0	0	0	0
CO4	1	2	0	0	0	1	0	0	0	0

SEMESTER III

THERAPEAUTIC NUTRITION

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	1	1	0	0	0	3	0
CO2	0	0	0	1	0	0	0	0	3	0
CO3	0	0	0	1	0	0	0	0	3	0
CO4	0	0	0	1	0	0	0	0	2	0

GENERAL PSYCHOLOGY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	0	1	1	3	0	0	0
CO2	0	0	0	0	1	1	3	0	0	0
CO3	0	0	0	0	1	3	1	0	0	0
CO4	0	0	0	0	3	1	1	0	0	0
CO5	0	0	0	0	3	1	1	0	0	0

EXERCISE PHYSIOLOGY AND FITNESS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1	0	3	0	0	0	0	0	0	2
CO2	2	0	0	0	0	2	0	1	0	0

EXERCISE PHYSIOLOGY AND FITNESS - AOC

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1	0	3	0	0	3	0	0	0	2
CO2	2	0	2	0	0	2	0	1	0	0
CO3	2	0	2	0	0	3	1	0	0	0

CLINICAL ORTHOPAEDICS AND SPORTS MEDICINE-1& 2

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	2	2	3	0	0	2	0	1	0	0
CO2	2	2	3	1	0	3	0	1	0	0
CO3	1	0	0	1	0	0	0	3	0	0

SEMESTER IV

FOOD SCIENCE

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	2	0	0	3	0	1	0	0	0
CO2	0	2	0	0	3	0	1	0	0	0
CO3	0	2	0	0	3	0	0	1	0	0
CO4	0	2	0	0	3	0	1	0	0	0
CO5	0	2	0	0	3	0	1	0	0	0

FIRST AID (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	2	3	0	0	2	0	3	0	0
CO2	0	0	0	0	0	0	0	1	0	0
CO3	0	3	0	0	0	3	0	3	0	0

ADVANCED SPORTS PHYSIOTHERAPY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	2	0	0	3	0	2	0	0
CO2	0	3	2	0	0	0	0	1	0	0
CO3	0	3	2	0	0	0	0	2	0	0

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ELECTROTHERAPY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1	2	0	0	3	1	1	0	0	0
CO2	1	2	0	0	3	1	1	0	0	0
CO3	1	2	0	0	3	1	0	1	0	0
CO4	1	2	0	0	3	1	1	0	0	0
CO5	1	2	0	0	3	1	1	0	0	0

SEMESTER V

COMMUNITY NUTRITION

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	3	0	0	0	0	1	1
CO2	0	0	0	3	0	0	0	0	1	1
CO3	0	0	0	3	0	0	0	0	2	1
CO4	0	0	0	3	0	0	0	0	1	1

BASIC NURSING AND HEALTH PROMOTION

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	2	0	0	3	1	2	0	0
CO2	0	0	2	0	0	0	0	1	0	0
CO3	0	0	2	0	0	0	0	2	0	0

PHYSIOTHERAPY IN ORTHOPAEDICS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	1	3	0	0	2	0	2	0	0
CO2	3	1	1	0	0	2	0	2	0	0
CO3	3	2	1	0	0	2	0	2	0	0
CO4	3	2	1	0	0	2	0	2	0	0

PHYSIOTHERAPY IN NEUROLOGY AND NEUROSURGERY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	1	3	0	0	2	0	2	0	0
CO2	3	1	1	0	0	2	0	2	0	0
CO3	3	2	1	0	0	2	0	2	0	0
CO4	3	2	1	0	0	2	0	2	0	0

PHYSIOTHERAPY IN GENERAL MEDICINE AND CARDIOTHORACIC CONDITIONS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	1	3	0	0	2	0	2	0	0
CO2	3	1	1	0	0	2	0	2	0	0
CO3	3	2	1	0	0	2	0	2	0	0
CO4	3	2	1	0	0	2	0	2	0	0

SEMESTER VI

WEIGHT MANAGEMENT AND REHABILITATION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1	0	0	0	0	3	0	1	0	0
CO2	0	0	2	3	0	0	0	1	3	2
CO3	0	3	0	0	0	0	0	1	0	0

SPORTS NUTRITION

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	0	0	0	1	1	0	0	0	2	3
CO2	0	0	0	1	1	0	0	0	2	3
CO3	0	0	0	1	1	0	0	0	2	3
CO4	0	0	0	1	1	0	0	0	2	3

CLINICAL POSTING

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	1	3	1	1	3	1	2	1	1	0
CO2	1	2	1	1	3	3	2	2	1	0
CO3	1	1	1	1	3	2	3	3	1	0

ASSESSMENT TOOLS

SEMINAR

Name of the Student: ANN MARY JOSE

Course: SPORTS NUTRITION AND PHYSIOTHERAPY

Programme: B.Voc

Academic year: 2022-23

University no: 210041000697

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	EXCELLENT	VERY GOOD	Good	Average	Below Average
CONTENT	5				
PRESENTATION	5				
USE OF TECHNOLOGY		4			
COMMUNCATION	5				
INTERACTION	5				

ASSIGNMENT

Name of the Student: ANN MARY JOSE

Course: SPORTS NUTRITION AND PHYSIOTHERAPY

Programme: B.Voc

Academic year: 2022-23

University no: 210041000697

	EXCELLENT	VERY GOOD	Good	Average	Below Average
RELEVANCE OF TOPIC	5				
CONTENT	5				
SYSTEMATIC PRESENTATION		4			
METHODOLOGY		4			
TIMING OF SUBMISSION	5				

VIVA

Name of the Student: ANN MARY JOSE

Course: SPORTS NUTRITION AND PHYSIOTHERAPY

Programme: B.Voc

Academic year: 2022-23

University no: 210041000697

	EXCELLENT	VERY GOOD	Good	Average	Below Average
ATTITUDE	5				
COMMUNICATION		4			
SUBJECT KNOWLEDGE		4			
PRESENTATION	5				
PUNCTUALITY	5				

INTERNSHIP

Name of the Student: ANN MARY JOSE

Course: SPORTS NUTRITION AND PHYSIOTHERAPY

Programme: B.Voc

Academic year: 2022-23

University no: 210041000697

	EXCELLENT	VERY GOOD	Good	Average	Below Average
ATTENDANCE	5				
PUNCTUALITY		4			
INVOLVEMENT	5				
INTERACTION		4			
SKILL	5				

ALPHONSA COLLEGE PALA

B. Voc SPORTS NUTRITION AND PHYSIOTHERAPY

INTERNAL EXAMINATION-FIFTH SEMESTER

COURSE CODE-SPT5S1 PHYSIOTHERAPY IN ORTH0PAEDICS

TIME: 1 HOUR TOTAL MARKS: 20

2019 Admission

Answer Any *Three* Questions , each carries 2 marks

1. What is pes cavus? Mention the causes.(Remember)PSO3,CO1
2. What is Bounce Home Test? (Remember)PSO1,CO2
3. Differentiate each-genu valgum,genu varum and genu recurvatum (Analyze) PSO3,CO1
4. Outline the causes and clinical fetures of T.B Spine(Apply) PSO3,CO1

(3 × 2 = 6 marks)

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Answer Any *One* Questions , each carries 4 marks

5. Compare the Pes planus features with Pescavus(Evaluate)PSO3,CO1
6. Examine the patient with meniscal injury(Apply) PSO1, CO3

(1 × 4 = 4 marks)

Answer Any *One* , each carries 10 marks

7. Explain in detail about T.B Spine(Understand)PSO3,CO1
8. Combine the details of foot arch deformities (Create) PSO3,CO1

(10 × 1=10 marks)

B VOC. SPORTS NUTRITION AND PHYSIOTHERAPY

Model Examination

Sixth semester

Physiotherapy in General Medicine & Cardiothoracic conditions

Time: 3hrs Maximum: 80 marks

PART – A

(Answer any 10 questions. Each question carries 2 mark)

1. What is Gangrene?(Remember) (CO 1)PSO3
2. Write short note on Oedema. (Remember) (CO3)PSO1
3. Define PVD. (Remember) (CO 1) PSO3
4. Define mitral stenosis. (Remember) (CO 1) PSO3
5. Define ARDS. (Remember) (CO 1) PSO3
6. List the factors affecting body composition. (Remember) (CO 1) PSO3
7. Discuss Shock.(Understand) (CO3) PSO1
8. Define Tetanus. (Remember) (CO 3) PSO1
9. Interpret aspiration. (Understand)(CO3) PSO1
10. What is poisoning? (Remember) (CO 1) PSO3
11. What is PFT? (Remember) (CO 1) PSO3
12. What is autogenic drainage? (Remember) (CO 1) PSO3 (10 × 2 = 20 marks)

PART – B

(Answer any 6 questions each carries 5 marks)

13. Classify valve disorders. (Understand) (C03) PSO1
14. Sketch the postural drainage position with stick diagram.(Apply) (C03) PSO1
15. What are the advantages of Group Exercise? (Understand) (C04) PSO3
16. Evaluate the effect of vibration in mobilization of secretion. (Evaluate) (C03) PSO6
17. Discuss the aims of geriatric rehabilitation. (Understand) (C02) PSO6
18. Differentiate adult and pediatric lung. (Analyse) (C01) PSO1
19. Compare the features of VSD & ASD. (Understand) (C01) PSO1
20. Explain Physiotherapy Management of wound ulcers. (Understand) (C03) PSO6
21. Describe Incentive Spirometry. (C01) PSO1 (6 × 5 = 30 marks)

PART – C

(Answer any 2 questions each carries 15 marks)

22. "A 45 Year old male suffering from cough for three month,in the last two years".

    Diagnose the condition and plan the PT Management for this patient.(create) (C02) PSO8
23. Define pulmonary rehabilitation. Mention the indication and contraindication.

    Explain the postural drainage position with a neat sketch. (Apply) (C03) PSO6
24. Explain ICU Management of head injury. (Understand) (C02) PSO1
25. Explain the principles of exercise prescription. (Understand) (C04) PSO3

(2 × 15 = 30 marks)

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B.A. English - Model 1

Model I BA Degree English Language and Literature

PROGRAMME SPECIFIC OUTCOMES (PSOs)

B A. English - Model I	
PSO1	Students should be able to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources.
PSO2	Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.
PSO3	Students should be able to identify, analyse, interpret and describe the critical ideas, values, and themes that appear in literary and cultural texts from the past and the present
PSO4	Appreciate, interpret and critically evaluate literature.
PSO5	Be able to differentiate between judgment and appreciation.
PSO6	Students should be able to understand the process of communicating and interpreting human experiences through literary representation using historical contexts and disciplinary methodologies.
PSO7	Learn theories on phonetics and linguistics and thereby understand the different varieties and forms of this language and also about the history of the evolution of this language.
PSO8	Learn to appreciate the aesthetics of literature with a literary sensitivity
PSO9	Discern the contemporary social, economic and political issues on local, national and international levels from the margins to the centre.
PSO10	Enhance the sense of moral and ethical values.

COURSE OUTCOMES (COs)

Course Code	Course Title	Programme Specific Outcome Achieved	Course Outcomes (CO)
		PSO2 PS03 PSO5 PSO6 PSO9	EN1CO10 To Outline the student to the major signposts in the historical evolution of literary studies from its inception to the current postcolonial realm.

			EN1CO11 Investigate the emergence of literature as a specific discipline within humanities. EN1CO 12 Identify the tenets of what is now known as traditional approaches and also that of formalism. EN1CO13 Verify influences of literary studies on social and cultural development and vice versa. EN1CO14 Identify peculiar features of Indian writing in English
EN2CR02	Introducing Language and Literature	PSO2 PSO3 PSO6 PSO7 PSO8	EN2CO25 Create/ identify the link between film and literature. EN-2CO26 To introduce the evolution and the differential traits of the English language till the present time. EN2CO27 Classify the genres and examine techniques of narration EN2CO28 Understand the various language varieties and its importance. ENCO29 To Study about the Loan words in English
EN3CR03	Harmony of Prose	PSO1 PSO2 PSO3 PSO7	EN3CO35The student is given space to mature in the presence of glorious essays, both Western and Non-Western. EN3CO36To make the students familiar with varied prose styles of Expression. EN3CO37Explore the importance of brevity in writing. EN3CO38 To make students to understand the stylistics of prose. EN3CO39 Equip students to write essays of their own.

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EN3CR04	Symphony of Verse	PSO1 PSO2 PSO3 PSO6 PSO8	EEN3CO40To acquaint the student with the rich heritage of poetry in English. EN3CO41To create an understanding of the representation of poetry in various periods of the English tradition. EN3CO42To make an awareness of the emerging cultural and Aesthetic expressions that poetry makes possible EN3CO43 Explain the terms and changing phases of writing including the movements that prompted significant pieces of poetry EN3CO44 Equip students to use various period writing style incorporated into their personal poetry if they are interested in writing poetry.
EN3CM03	Evolution of Literary Movements: The Shapers of Destiny	PSO2 PSO3 PSO6 PSO9 PSO10	EN3CO50To understand the social and Political history of England EN3CO51TO examine the power of foreign invasions in shaping the England that we see now. EN3CO52To learn the rise of England under the different rulers of England EN3CO53 Analyse different contributions made by writers during the early and middle English periods EN3CO54 Evaluate the effects of war and epidemics on English society.

EN4CR05	Modes of Fiction	PSO1 PSO2 PSO3 PSO6	EN4CO55 To acquaint students with various modes of fiction. EN4CO56 The students will be able to comprehend the categories of British and non- British short fiction, and also the novel as a form of literary expression EN4CO57 To encourage the students to explore the realm of fiction EN4CO58 Appreciate how different genres generate meanings through their fictional narratives. EN4CO59 Formulate a knowledge on the stylistic strategies employed by different fiction writers
EN4CR06	Language and Linguistics	PSO1 PSO6 PSO7	EN4CO60 Introduction to the science of linguistics. EN4CO61 seeks to give an overview of the basic concepts of linguistics and linguistic analysis to the students EN4CO62To show the various organs and processes involved in the production of speech, the types and typology of speech sounds, segmental & supra-segmental features of the English language, and transcription using IPA EN4CO63To describe and explain morphological processes and different word formations. EN4CO64To enhance students' awareness that natural language is structure dependent and generative and to develop their ability to observe, describe and explain the grammatical process.

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EN4CM04	The Evolution of Literary Movements: The Cross currents	PSO3 PSO6 PSO9 PSO10	EN4CO65 The course seeks to introduce the student to those movements from around the world that led to literary movements later. EN4CO66 Enables the students to understand the history of many movements that originated from the margins. EN4CO67 Equips the students with the knowledge, how a movement could bring a great cultural and social change EN4CO68 Analyses on how politics and policy making decisions are effected by such movements EN4CO69 A close study on what are those movements that originated in west and east.
EN5CROP03	Open Course English for Careers	PSO1 PSO6 PSO7 PSO10	EN5CO70 Enhances the students to prepare their own resumes and covering letters in a professional way EN5CO71 Introduces English usages and grammar for developing good language skills EN5CO72 Introduces theories for good presentation and interview skills EN5CO73 Gains knowledge on work ethics, and job environment EN5CO74 An awareness about types of personalities, traits and so on.

EN5CR07	Acts on The Stage	PSO2 PSO3 PSO4 PSO6	EN5CO75 The course seeks to introduce the student to select theatre texts that form the canon of English drama. EN5CO76 On completion of the course, the student shall be familiar with the works of the playwrights. EN5CO77 Enables the student to appreciate and critique drama as an art form. EN5CO78 Contrast the essential differences between the Elizabethan theatre and modern theatre EN5CO79 Apply the various theoretical elements on drama to the prescribed samples of study.
EN5CR08	Literary Criticism and Theory	PSO1 PSO2 PSO6 PSO8	EN5CO80 The course seeks to introduce students to the major signposts in Literary Criticism, Literary Theory and Indian Aesthetics. EN5CO81 The student will have awareness about the major developments in literary criticism from the ancient times to the twentieth century. EN5CO82 The student will be initiated to the realm of literary theory and major theoretical schools. EN5CO83 Evaluate the units of study against standards of literature and culture EN5CO84 Construct a critical write-up on any given text (Prose & Poetry).

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EN5CR09	Indian Writing in English	PSO2 PSO6 PSO9 PSO10	EN5CO85 The course is intended to sensitize students to the various ways in which literature written in English, in the Indian sub-continent serves as a platform for forming, consolidating, critiquing and re-working the issue of national identity' at various levels. EN5CO86 On completion of the course, the student should be aware of the subtle flavours that distinguish the Indian quotient in English writings from India EN5CO87 Teaching the different concerns that Indian English writers share, cutting across sub-nationalities and regionalities. EN5CO88 Evaluates the metamorphic face of Indian Literature as one in response to the glocal change. EN5CO89 Contrast the differences between pre independence and post-independence Indian Literature.

EN5CREN01	Environmental Science and Human Rights	PSO3 PSO6 PSO9 PSO10	EN5CO90 Environmental Education encourages students to research, investigate how and why things happen, and make their own decisions about complex environmental issues by developing and enhancing critical and creative thinking skills ENCO91 It helps to foster a new generation of informed consumers, workers, as well as policy or decision makers. EN5CO92 Environmental Education helps students to understand how their decisions and actions affect the environment EN5CO93 builds knowledge and skills necessary to address complex environmental issues, as well as ways we can take action to keep our environment healthy and sustainable for the future. EN5CO94 It encourages character building, and develops positive attitudes and values.
EN6CB04	Voices from the Margins	PSO2 PSO3 PSO6 PSO9 PSO10	EN6CO95 To Recall the suppressed histories and discourses EN6CO96To critically encounter Dalit voices and their issues realistically EN6CO97To understand Dalits' social reality EN6CO98To analyse the emergence of Dalit perspectives in academia EN6CO99 To equip our students with the knowledge of samples of Dalit literary articulation.

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EN6CR10	Post-Colonial Literatures	PSO2 PSO3 PSO6 PSO9 PSO10	EN6CO100To familiarize the students the varied dimensions of postcolonial subjectivity through theory and literature. EN6CO101To make the students aware of the social, political, cultural aspects of postcolonial societies EN6CO102 To make the students realise the impact of colonialism and imperialism on native cultural identities. EN6CO103To Evaluate how race, class, gender, history, and identity are presented and problematised in the literary texts EN6CO104 To understand psychological and social ill effects of coonization.
EN6CR11	Women Writing	PSO2 PSO4 PSO6 PSO9 PSO10	EN6CO105To critically respond to literature from a feminist perspective. EN6CO106To make the students realize how the patriarchal notions pervade in the social and cultural scenario and how feminism exposes these notions EN6CO107To critically respond to literature from a feminist perspective. EN6CO108To understand womens issues and struggles from across the world EN6CO109 To sensitise on issues that are typically women from the margins and how it travels to the centre through feminist activities.

EN6CR12	American Literature	PSO3 PSO4 PSO5 PSO6 PSO9	EN6CO110To enable the students to have a holistic understanding of the heterogeneity of American culture EN6CO111To study works of prose, poetry, drama, and fiction in relation to Americas historical and cultural contexts. EN6CO112To make the students familiar with the evolution of various literary movements in American literature. EN6CO113To get them acquainted with the major authors in American Literary History. EN6CO114Analyse the typically American qualities of a Work of American origin.
EN6CR13	Modern World Literature	PSO3 PSO4 PSO6 PSO8 PSO9 PSO10	EN6CO115To make the students aware of the stupendous variety that resides in Literatures the world over. EN6CO116To discern that literatures the world over engage in very deep ways with the vicissitudes of life. EN6CO117To discern that World literatures often defy genres/ regionalities and canonical assumptions to emerge as a platform where poetics and politics fuse. EN6CO118 To understand about various literary movements that have goverened Literature across genres. EN6CO119 To Appreciate different genres of Literature.

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COMMON COURSES

Course Code	Course Title		Course Outcomes (CO
EN1CCT01	Fine-Tune Your English	PSO1 PSO7	EN1CO1Recognize the terms and concepts of advanced grammar to fine-tune your language (R) EN1CO2Generalise and practice through examples of grammar (U) EN1CO3 Identify the rules that primarily rules that govern the syntax of language (U EN1CO4Analyse the different grammatical units that are used in different situations (An) EN1C05Determine the appropriate usages to be employed in various aspects of the language globally (E).
EN1CCT02	Pearls from the Deep	PSO2 PSO4 PSO5 PSO6 PSO8	EN1CO6To introduce students to the different genres of literature and to the niceties of literary expression (R) EN1CO7To locate the aesthetic and structural elements of literature (U) EN1C08Analyse the understanding of different cultural values globally (An) EN1CO9To appreciate and enjoy works of literature and analyse the lives they have come across the text in the context of their awareness of the real world.

EN2CC03	Issues That Matter	PSO3 PSO4 PSO6 PSO9 PSO10	EN2CO15 To sensitize the learners to contemporary issues of concern EN2CO16 To identify the major issues of contemporary significance EN2CO17 To respond rationally and sensitively to the issues raised EN2CO18 To internalize the values imparted through the selected readings EN2CO19 To think critically and act intelligently to such issues in real life situations.
EN2CC04	Savouring the Classics	PSO2 PSO3 PSO4 PSO6 PSO8	EN2CO20To introduce the students to the taste of time-tested world classics EN2CO21 To become familiar with the classics from various lands EN2CO22To understand the features that go into the making of a classic EN2CO23 Compare /identify different texts of the same genre EN2CO24 Recognise different features of the text prescribed thus enriching oneself with new knowledge

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EN3CC05	Literature/and as Identity	PSO3 PSO4 PSO6 PSO9 PSO10	EN3CO30To sensitize students to the various ways in which literature serves as a platform for forming, consolidating, critiquing and re-working the issue of 'identity' at various levels EN3CO31To recognize the subtle negotiations of Indigenous and Diasporic identities with-in Literature EN3CO32To realise the fissures, the tensions and the interstices present in South Asian regional identities EN3CO33 Analyses about how life of great personalities are revealed through their life writing EN3CO34 Create an awareness among students on how we should aim high in life.
EN4CC06	Illuminations	PSO3 PSO6 PSO9 PSO10	EN4CO45To acquaint the learners with different forms of inspiring and motivating literature EN4CO46The need of the hour realization, to remain positive in life EN4CO47To evaluate and overcome setbacks based on the insights that these texts provide EN4CO48To understand the emergence of Life Writing and alternate/alternative/marginal identities EN4CO49To bring out a creative, insightful prespective towards life.

PSO –CO MAPPING

Fine -Tune Your English										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN1CO1	3	2	2	2	1	2	3	2	-	-
EN1CO2	3	2	2	3	2	2	3	2	-	-
EN1CO3	3	3	2	2	2	1	3	2	-	-
EN1CO4	3	2	1	2	2	2	3	2	1	1
EN1CO5	3	2	3	2	2	2	3	2	2	-

EN – English CO - Course Outcome

Pearls from the Deep										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN1CO6	1	3	2	3	3	3	1	3	1	2
EN1CO7	2	3	2	3	3	2	2	3	-	2
EN1CO8	2	3	3	3	3	2	1	3	2	2
EN1CO9	2	2	3	2	2	3	2	3	2	2

Methodology of Literary Studies										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN1CO10	1	3	3	2	3	3	1	1	3	1
EN1CO11	1	3	3	2	3	3	1	2	3	1
EN1CO12	1	2	3	2	3	3	2	2	3	-
EN1CO13	1	2	3	2	2	3	1	2	3	1
EN1CO14	1	2	3	2	3	3	2	3	3	-

Issues That Matter										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN2CO15	-	2	3	3	2	3	1	2	3	3
EN2CO16	1	2	3	3	2	3	1	2	3	3
EN2CO17	1	2	3	3	2	3	-	2	3	3
EN2CO18	1	2	3	3	2	3	-	2	3	3
EN2CO19	1	2	3	3	2	3	-	3	3	3

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Savouring the Classics										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN2CO20	2	3	3	3	2	3	1	3	2	2
EN2CO21	-	2	3	3	1	3	1	3	3	2
EN2CO22	3	3	3	3	2	3	2	3	2	1
EN2CO23	2	3	3	3	2	3	1	2	2	-
EN2CO24	2	3	3	3	2	3	2	3	2	-

Introducing Language and Literature										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN2CO25	1	3	3	2	2	3	2	3	2	-
EN2CO26	2	3	3	2	2	3	2	2	2	-
EN2CO27	2	3	3	2	2	3	3	2	1	-
EN2CO28	2	3	3	2	2	3	3	2	2	-
EN2CO29	2	2	3	1	1	3	3	2	2	-

ILiterature/and as Identity										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN3CO30	1	2	3	2	2	3	1	2	3	3
EN3CO31	-	2	3	2	2	3	-	2	3	3
EN3CO32	1	2	3	2	2	3	-	2	3	3
EN3CO33	1	2	3	2	2	3	-	2	3	3
EN3CO34	-	2	2	2	2	2	-	2	3	3

Harmony of Prose										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN3CO35	3	3	2	2	2	2	3	2	2	1
EN3CO36	3	3	2	2	2	2	3	2	2	-
EN3CO37	3	3	2	2	2	2	3	2	-	2
EN3CO38	3	3	2	2	2	2	3	2	-	-
EN3CO39	3	3	2	2	2	2	2	2	-	-

Symphony of Verse										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN3CO40	2	3	3	2	2	3	2	3	-	-
EN3CO41	3	3	3	2	2	3	2	3	2	-
EN3CO42	2	3	3	2	2	3	2	3	-	-
EN3CO43	3	3	3	2	2	3	2	2	-	-
EN3CO44	3	3	3	2	2	3	1	2	-	-

Illuminations										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN4CO45	1	3	3	2	2	3	2	2	3	2
EN4CO46	-	3	2	2	2	3	-	1	2	2
EN4CO47	-	3	3	2	1	3	2	2	3	3
EN4CO48	1	2	3	2	2	3	2	2	3	3
EN4CO49	-	3	3	2	2	3	1	2	3	3

Evolution of Literary Movements: The Shapers of Destiny										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN3CO50	1	2	3	2	2	3	1	2	3	3
EN3CO51	-	1	2	2	2	2	-	2	2	3
ENC3O52	-	1	2	2	2	3	-	2	3	3
EN3CO53	2	3	2	2	2	3	-2	3	2	2
EN3CO54	-	2	3	2	2	3	-	2	2	3

Modes of Fiction										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN4CO55	3	3	3	2	2	3	1	2	2	-
EN4CO56	3	3	3	2	2	3	1	2	2	-
EN4CO57	3	3	3	2	2	3	1	2	2	-
EN4CO58	2	3	3	2	2	2	1	2	3	2
EN4CO59	2	3	3	2	2	3	2	2	2	-

Language and Linguistics										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN4CO60	3	1	2	1	2	2	3	2	-	-
EN4CO61	3	2	2	2	2	2	3	2	-	-
EN4CO62	3	2	2	1	1	2	3	2	-	-
EN4CO63	3	2	2	2	2	2	3	2	-	-
EN4CO64	3	2	2	2	2	2	3	2	-	-

The Evolution of Literary Movements: The Cross currents										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN4CO65	2	2	3	2	2	3	1	2	3	2
EN4CO66	2	2	3	2	2	3	1	2	3	3
EN4CO67	1	2	3	2	2	3	2	2	3	3
EN4CO68	-	2	2	2	2	3	1	2	3	3
EN4CO69	1	3	3	2	2	2	1	2	3	2

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Open CourseEnglish for Careers										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN5CO70	3	1	1	1	1	2	3	2	2	-
EN5CO71	3	1	1	2	1	2	3	2	2	-
EN5CO72	3	1	1	2	2	2	3	2	2	2
EN5CO73	1	2	2	2	2	2	2	2	2	3
EN5CO74	1	2	2	2	2	2	-	2	2	3

Acts on The Stage										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN5CO75	2	2	3	3	2	3	2	2	2	-
EN5CO76	1	2	3	2	2	3	2	3	2	-
ENCO77	2	3	3	3	2	3	1	3	3	2
EN5CO78	2	3	3	2	3	3	2	3	2	1
EN5CO79	3	3	2	2	3	3	2	3	2	2

Literary Criticism and Theory										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN5CO80	1	3	2	2	2	2	1	3	2	1
EN5CO81	1	3	2	2	2	3	1	2	2	2
EN5CO82	1	3	2	2	2	3	1	2	2	-
EN5CO83	2	3	2	2	3	3	1	2	2	1
EN5CO84	3	2	2	2	2	2	2	2	2	2

Indian Writing in English										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN5CO85	2	3	2	2	2	3	2	2	3	2
EN5CO86	2	3	2	2	2	3	2	2	3	2
EN5CO87	1	2	3	2	2	3	2	2	3	2
EN5CO88	1	2	3	2	2	3	2	2	3	3
EN5CO89	1	3	2	2	2	3	1	2	3	2

Environmental Science and Human Rights										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN5CO90	2	2	3	2	2	3	1	2	3	3
EN5CO91	2	2	2	2	2	3	-	2	3	3
EN5CO92	1	2	2	2	2	3	-	2	3	3
EN5CO93	-	2	2	2	2	3	-	2	3	3
EN5CO94	2	2	2	2	2	2	-	2	3	3

Voices from the Margins										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN6CO95	1	2	3	2	2	3	-	2	3	3
EN6CO96	-	3	3	2	2	3	-	2	3	3
EN6CO97	-	2	3	2	2	3	-	2	3	3
EN6CO98	1	2	3	2	2	3	-	2	3	3
EN6CO99	2	3	2	2	2	3	1	2	3	2

Post-Colonial Literatures										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN6CO100	2	3	3	2	2	3	2	2	3	2
EN6CO101	-	3	3	2	2	3	-	2	3	3
EN6CO102	-	3	3	2	2	3	-	2	3	3
EN6CO103	2	3	3	2	2	3	-	2	3	3
EN6CO104	-	3	3	2	2	3	-	2	3	3

Women Writing										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN6CO105	1	3	2	3	2	3	1	2	3	3
EN6CO106	1	3	2	3	3	3	1	2	3	3
EN6CO107	1	3	2	2	2	3	1	2	3	3
EN6CO108	-	3	3	3	3	3	-	2	3	3
EN6CO109	-	3	2	3	2	3	-	2	3	3

American Literature										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN6CO110	1	2	3	3	3	3	2	2	3	2
EN6CO111	1	2	3	3	3	3	2	2	3	2
EN6CO112	2	3	3	2	2	3	2	2	3	2
EN6CO113	-	2	3	3	2	3	2	2	3	2
EN6CO114	2	2	3	3	3	3	2	2	3	2

Modern World Literature										
	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08	PS09	PS010
EN6CO115	2	2	3	3	3	3	2	3	3	2
EN6CO116	1	2	3	3	2	3	2	3	3	3
EN6CO117	1	2	3	3	3	3	2	3	3	3
EN6CO118	1	2	3	3	3	3	2	3	3	2
EN6CO119	1	2	3	3	3	3	2	3	3	1

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ASSESSMENT TOOLS

1. CLASS TEST (SAMPLE)

ALPHONSA COLLEGE PALA

INTERNAL EXAMINATION- NOVEMBER 2022

Sixth Semester, UG English

Choice Based Core Course- EN6CBT04- VOICES FROM THE MARGINS

Time: 1 Hour Mark: 20

Part A – Answer Any Five

Each Question Carries 2 Mark

1. Which are the Hindu scriptures according to Gandhi? (Remembering) CO95, PSO2
2. List two Dalit writers? (Remembering)CO95, PSO2
3. What does Ayyamma do to gather food for the family? (Remembering) CO95,PSO3
4. Explain the reason for rejecting the 'guru principle'? (Understanding) CO97,PSO6
5. Compare the characters Ayamma and Patti? (Understanding)CO97, PSO6
6. Exemplify Ayyankali as a social reformer? (Understanding) CO97, PSO9

(1 × 5 = 5)

Part B- Answer Any One

The Question Carries 5 Mark

7. Outline the conditions of the dalits during the times of Ayyankali? (Analysing) CO96,PSO9
8. Using the characteristics of Dalit Literature analyse the text Coolie? (Analysing) CO96, PSO9 (5 × 1 = 5)

Part C- Answer Any One

The Question Carries 10 Mark

9. Detect the characterization and narrative technique employed by Bama to expose the plight of dalit women of various generations? (Evaluating)CO96, PSO10

10. Your college is planning to conduct a national seminar on Dalit literature. Write a speech describing the scope and significance of Dalit Literature? (Creating) CO99, PSO10 (10 × 1 = 10)

2. END SEMESTER EXAMIONATION (SAMPLE)

B.A DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS, MARCH 2023

Sixth Semester

CHOICE BASED CORE COURSE - EN6CBT04 - VOICES FROM THE MARGINS

Model Question Paper

Time: 3 Hours Max. Marks : 80

Part A

Answer any ten questions. Each question carries 2 marks.

1. What is Shri SantRamji's criticism of Gandhi's distinction between caste and varna?

   (Remembering) PSO3/ CO95

2. What are the two possible reasons for the large number of worst specimens of a religion? (Remembering) PSO2/CO97

3. What does Gopal Guru mean by epistemological imperialism? (Remembering) PS09/CO96

4. Why were the low castes who converted to Islam forced to retain their caste status? (Analysing) PSO10/CO95

5. How did the post-independence Marathi literature depict the dalits? (Analysing) PSO3 /CO96

6. What is meant by minor literature? (Remembering) PSO2/CO96

7. Why, according to the speaker, does history not speak of the sacrifice of Yashodhara? (Analysing) PSO9/CO95

8. How did Anna take care of the horse of the constables? (Evaluating) PSO9/ CO96

9. Why was Ayyamma asking Kakka to be careful as the thunder could be heard close by? (Analysing) PSO3/CO96

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10. What does Pullayya ask Venkanna to do with whatever he has studied so far? (Remembering) PSO9/CO97
11. How does Venkanna react to his father's anger? (Evaluating) PSO3/CO97
12. What does 'Sangati' mean? (Remembering) PSO3/CO99 (10 × 2 = 20)

Part B

Answer any six questions. Each question carries 5 marks.

13. How does Gandhi establish the difference between varnasrama and Caste? (Evaluating) PSO9/CO95
14. What does Ambedkar mean when he says that there can be a better or worse Hindu, but a good Hindu there cannot be? (Remembering) PSO9/CO98
15. Is dalit literature univocal? (Evaluating) PSO2/CO98
16. Describe the incident mentioned in KumudPawade'sAntasphot under the caption 'After all we are women'. How does it expose dalit patriarchy? (Understanding) PSO9/CO96/CO97
17. How was the corpse in the well brought out? (Evaluating) PSO3/CO97
18. What efforts were made by Ayyemma to sustain and support her family? (Remembering) PSO3/CO97
19. Describe the first agrarian strike stressing on the reasons, counter measures and the manner of conclusion to the strike. (Understanding) PSO3/CO95
20. Why did Krishnan decide to say that he did not see anything in the car? (Analysing) PSO3/CO99
21. Write a note on Bama's feminism. (Evaluating) PSO3/CO98 (6 × 5 = 30)

Part C

Answer any two questions. Each question carries 15 marks.

22. Comment on Gopal Guru's view that doing theory is both a social need and inner necessity for the dalits. (Analysing) PSO10/CO98
23. Explain briefly the arguments placed by Gail Omvedt in A Proposal for Dalit Studies. (Understanding) PSO6/CO96
24. Briefly explain the role of Ayyankali in the upliftment of the dalit community. (Understanding) PSO9/CO96
25. Attempt a critical appreciation of Sangati. (Analysing) PSO2/CO99

(2 × 15 = 30)

3. SEMINAR

Name of the student

Programme

Course

Academic year

Register Number

Component	Excellent	Very Good	Good	Average	Poor
Content					
Presentation					
Technology					
Interaction					
SKILL					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

4. ASSIGNMENT

Name of the student

Programme

Course

Academic year

Register Number

Component	Excellent	Very Good	Good	Average	Poor
Relevance					
Content					
Presentation					
Methodology					
Time bound					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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5. PROJECT

Name of the student

Programme

Course

Academic year

Register Number

Component	Excellent	Very Good	Good	Average	Poor
Relevance					
Content					
Presentation					
Methodology					
Punctuality					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

6. VIVA

Name of the student

Programme

Course

Academic year

Register Number

Component	Excellent	Very Good	Good	Average	Poor
Knowledge on the Topic					
Communication Skill					
Clarity of Thought					
Presentation Style					
Overall Expertise in Subject					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

7. REFLECTIVE JOURNAL

Name of the student

Programme

Course

Academic year

Register Number

SI NO	DATE	CONTENT OUTLINE	LEARNING STRATEGY	REFLECTIONS	REMARKS of the Supervising teacher
1	5/6/2023	Visit to hill palace	Field Visit	Nobility	

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 po

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B.Sc. Chemistry - Model 1

Programme Name – B. Sc Chemistry

(With effect from 2017 Admission)

PROGRAM SPECIFIC OUTCOMES

PSO	PSO Statement
PSO1	Develop deep understanding in the fundamental's concepts and theories of physical, organic, inorganic, nano, polymer, theoretical & environmental chemistry.
PSO2	Inculcate analytical thinking and draw inferences through qualitative and quantitative analysis of theories.
PSO3	Enhance practical skills and competencies to conduct scientific experiments.
PSO4	Generate environmental consciousness by understanding the concepts of green chemistry and environmental chemistry.
PSO5	Impart scientific aptitude through solving the problems in thermodynamics, electrochemistry, analytical chemistry, spectroscopy, chemical equilibrium, kinetics and photochemistry.
PSO6	Encourage students to understand the application of polymer chemistry, physical chemistry, inorganic chemistry, analytical chemistry, environmental chemistry & organic chemistry in various spheres of life.
PSO7	Develop deep knowledge in fundamental concepts in various spheres of Chemical Science and mold students with scientific aptitude towards the well-being of the society.

COURSE OUTCOMES

CORE COURSES

Semester: I

Course Code: CH1CRT01	Course Title: General and Analytical Chemistry	PSO	CO	CO Statement
		PSO1	1.CO1	Discuss the fundamental concepts in methodology of chemistry, periodic properties, analytical methods and chromatographic techniques.
		PSO2	1.CO2	To apply the knowledge to explain the periodic properties of elements and various analytical methods in chemistry
		PSO3	1.CO3	To understand the principles behind different analytical techniques to perform the laboratory experiments.
		PSO5	1.CO4	To solve the problems using the analytical methods in chemistry
		PSO6	1.CO5	Discuss the evaluation and statistical treatment of analytical data

Semester: II

Course Code: CH2CRT02	Course Title: Theoretical and Inorganic Chemistry	PSO	CO	CO Statement
		PSO1	2.CO1	To understand the concept of atomic structure, chemical bonding and s,p,d,f block elements
		PSO2	2.CO2	Apply the ideas to predict the electronic configuration of atoms, and hybridization of molecules

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		PSO2	2.CO3	Explain long form of periodic table and periodic properties of s, p, d and f block elements.
		PSO5	2.CO4	To solve the problems using theoretical concepts in chemistry

Semester: III

Course Code: CH-3CRT03	Course Title: Organic Chemistry I	PSO	CO	CO Statement
		PSO1	3.CO1	To understand the basic concepts of organic reaction mechanism, stereochemistry, aromatic compounds and pericyclic reactions
		PSO5	3.CO2	To apply the concepts in organic chemistry to solve the problems
		PSO2	3.CO3	To apply the concept of stereochemistry to different compounds and conformational analysis.
		PSO2	3.CO4	To analyze the stability of different aromatic systems
		PSO3	3.CO5	Discuss the basic ideas about organic reaction mechanism to perform the organic laboratory experiments

Semester: IV

Course Code: CH-4CRT04	Course Title: Organic Chemistry II	PSO	CO	CO Statement
		PSO1	4.CO1	Explain the preparation and properties of alcohols, phenols, ethers, aldehydes, Ketones and carboxylic acids.

		PSO2	4.CO2	Discuss the organic reaction mechanisms
		PSO3	4.CO3	Discuss the basic ideas in organic chemistry to perform the organic laboratory experiments
		PSO5	4.CO4	To apply the concepts in organic chemistry to solve the problems
		PSO6	4.CO5	Explain the applications of various organic compounds

Semester: V

Course Code: CH-5CRT05	Course Title: Environment, Ecology, Human Rights	PSO	CO	CO Statement
		PSO4	5.1.CO1	Describe the chemical aspects of environmental issues.
		PSO2	5.1.CO2	Distinguish the renewable and non-renewable energy sources.
		PSO4	5.1.CO3	Understand the analytical techniques in chemistry to monitor pollution.
		PSO7	5.1.CO4	Understand the fundamental human rights, rights for children and women and rights for SC, ST, OBC and minorities.

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Course Code: CH-5CRT06	Course Title: Organic Chemistry III	PSO	CO	CO Statement
		PSO1	5.2.CO1	Understand the concepts of organic chemistry through the studies of organic compounds.
		PSO2	5.2.CO2	Explain the structural features affecting stability, basicity of various organic compounds
		PSO3	5.2.CO3	Discuss the fundamentals of nitrogen containing compounds to perform the organic laboratory experiments
		PSO6	5.2.CO4	Discuss the applications of drugs, dyes and polymers
		PSO7	5.2.CO5	Explain environmental fate of plastics, recycling of plastic

Course Code: CH-5CRT07	Course Title: Physical Chemistry I	PSO	CO	CO Statement
		PSO1	5.3.CO1	Understand the fundamental concepts of various states of matter and surface chemistry
		PSO2	5.3.CO2	Discuss the defects in crystal
		PSO5	5.3.CO3	Solve the problems in gaseous sate and solid state
		PSO3	5.3.CO4	Discuss the fundamental concepts to perform various physical chemistry experiments
		PSO6	5.3.CO5	Discuss the properties and applications of colloids

Course Code: CH-5CRT08	Course Title: Physical Chemistry II	PSO	CO	CO Statement
		PSO1	5.4.CO1	Understand the fundamentals of quantum mechanics and molecular spectroscopy.
		PSO2	5.4.CO2	Determine structure of compounds using IR and electronic spectroscopy.
		PSO6	5.4.CO3	Explain the applications of quantum mechanics in the study of structure of atoms, bonding in molecules and molecular spectroscopy.
		PSO7	5.4.CO4	Demonstrate proficiency in the principle and applications of microwave, infra-red, Raman, electronic and nuclear magnetic resonance spectroscopy.
		PSO5	5.4.CO5	Solve the problems in spectroscopy and quantum mechanics.

Open Course Code: CH5OPT01	Course Title: Chemistry in Everyday Life	PSO	CO	CO Statement
		PSO4	5.5.CO1	Understand the practical aspects of chemistry in day-to-day life.
		PSO6	5.5.CO2	Acquire aptitude in the proper use of additives and flavours in safe food production.

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		PSO2	5.5.CO3	Explain the chemistry behind cosmetics, cleansing action of soaps and detergents.
		PSO7	5.5.CO4	Understand and appreciate the importance of drugs, dyes and nanomaterials.
		PSO7	5.5.CO5	Explain the environmental fate of plastics and paper.
		PSO4	5.5.CO6	Identify the applications of nutrients, fertilizers and pesticides in agriculture.

Semester: VI

Course Code: CH6CRT09	Course Title: Inorganic Chemistry	PSO	CO	CO Statement
		PSO1	6.1.CO1	Understand the fundamental concepts of co-ordination chemistry, organo-metallic compounds.
		PSO2	6.1.CO2	Discuss the importance of coordination chemistry in qualitative and quantitative analysis.
		PSO6	6.1.CO3	Understand the role and behaviour of biological compounds as well as metals, including those that are non-essential, in medicine and toxicology.
		PSO6	6.1.CO4	Explain the properties of some industrially important boron compounds and noble gas compounds.
		PSO5	6.1.CO5	Solve the problems in co-ordination chemistry and organometallic chemistry

Course Code: CH6CRT10	Course Title: Organic Chemistry IV	PSO	CO	CO Statement
		PSO1	6.2.CO1	Understand the basic concepts of natural products, organic photo-chemistry organic spectroscopy.
		PSO2	6.2.CO2	Explain importance of amino acids, proteins, nucleic acids and enzymes.
		PSO6	6.2.CO3	Demonstrate proficiency about ter-penoids, alkaloids, lipids, vitamins, steroids and hormones.
		PSO5	6.2.CO4	Solve the problems in organic spectroscopy.
		PSO1	6.2.CO5	Understand the basic concepts of supramolecular chemistry.
		PSO6	6.2.CO6	Describe the application of natural products and bio molecules.

Course Code: CH6CRT 11	Course Title: Physical Chemistry III	PSO	CO	CO Statement
		PSO1	6.3.CO1	Understand the basic concepts and laws of thermodynamics, Ionic equi-libria and chemical equilibria.
		PSO2	6.3.CO2	Understand the pressure tempera-ture dependence of equilibrium constant.

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		PSO5	6.3.CO3	To solve problems in kinetics, equilibria and thermodynamics.
		PSO6	6.3.CO4	To understand various phase transitions and its applications.
		PSO6	6.3.CO5	To apply the concept of kinetics and catalysis to various chemical and physical processes.
		PSO3	6.3.CO6	Discuss the fundamental concepts to perform various physical chemistry experiments.

Course Code: CH6CRT 12	Course Title: Physical Chemistry IV	PSO	CO	CO Statement
		PSO1	6.4.CO1	Understand the fundamental concepts of electrochemistry, photochemistry, group theory and solution chemistry.
		PSO2	6.4.CO2	Explain electrolytic conduction, transport number and conductometric titrations.
		PSO3	6.4.CO3	Discuss the fundamental concepts to perform various physical chemistry experiments.
		PSO5	6.4.CO4	Solve the problems in electrochemistry, photochemistry and solution chemistry.
		PSO6	6.4.CO5	Discuss the various applications of electrochemistry, distillation methods in industries and everyday life.

Course Code: CH6CBT01	Course Title: Polymer Chemistry IV	PSO	CO	CO Statement
		PSO1	6.5.CO1	To understand various classification of polymers and types of polymerizations
		PSO5	6.5.CO2	Solve the problems of average molecular weight of polymers.
		PSO2	6.5.CO3	To appreciate the importance of processing techniques.
		PSO6	6.5.CO4	To characterize different commercial polymers and to understand the significance of recycling.
		PSO7	6.5.CO5	Explain the hazards of plastics and its recycling.

CO-PSO MAPPING

PROGRAMME: B.Sc. Chemistry

COURSE TITLE: General and Analytical Chemistry

COURSE CODE: CH1CRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
1.CO1	3	-	-	-	-	-	-
1.CO2	-	3	-	-	-	-	-
1.CO3	-	-	3	-	-	-	-
1.CO4	-	-	-	-	3	-	-
1.CO5	-	-	-	-	-	2	

MAPPING OF CO AND PSO FOR THE COURSE "General and Analytical Chemistry"

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PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Theoretical and Inorganic Chemistry
COURSE CODE: CH2CRT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
2.CO1	3	-	-	-	-	-	-
2.CO2	-	3	-	-	-	-	-
2.CO3		2					
2.CO4	-	-	-	-	3	-	-

MAPPING OF CO AND PSO FOR THE COURSE "Theoretical and Inorganic Chemistry"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: ORGANIC CHEMISTRY I
COURSE CODE: CH3CRT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
03.CO1	3	-	-	-	-	-	-
03.CO2	-	-	-	-	3	-	-
03.CO3	-	2	-	-	-	-	-
03.CO4	-	3	-	-	-	-	-
03.CO5	-	-	3	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE "ORGANIC CHEMISTRY I"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: ORGANIC CHEMISTRY II
COURSE CODE: CH4CRT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
04.CO1	3	-	-	-	-	-	-
04.CO2	-	3	-	-	-	-	-
04.CO3	-	-	3	-	-	-	-
04.CO4	-	-	-	-	1	-	-
04.CO5	-	-	-	-	-	2	-

MAPPING OF CO AND PSO FOR THE COURSE "ORGANIC CHEMISTRY II"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Environment, Ecology, Human Rights
COURSE CODE: CH5CRT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
05.1.CO1	-	-	-	3	-	-	-
05.1.CO2	-	2	-	-	-	-	-
05.1.CO3	-	-	-	2	-	-	-
05.1. CO4	-	-	-	-	-	-	3

MAPPING OF CO AND PSO FOR THE COURSE "Environment, Ecology, Human Rights"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Organic Chemistry III
COURSE CODE: CH5CRT06

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
05.2.CO1	3	-	-	-	-	-	-
05.2.CO2	-	2	-	-	-	-	-
05.2.CO3	-	-	3	-	-	-	-
05.2. CO4	-	-	-	-	-	3	-
05.2. CO5	-	-	-	-	-	-	3

MAPPING OF CO AND PSO FOR THE COURSE "Organic Chemistry III"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Physical Chemistry I
COURSE CODE: CH5CRT07

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
05.3.CO1	3	-	-	-	-	-	-
05.3.CO2	-	2	-	-	-	-	-
05.3.CO3	-	-		-	3	-	-
05.3.CO4	-	-	3	-	-	-	-
05.3.CO5	-	-	-	-	-	3	-

MAPPING OF CO AND PSO FOR THE COURSE "Physical Chemistry I"

Alphonsa College, Pala Kerala
ISBN: 978-93-85657-41-2

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Physical Chemistry II
COURSE CODE: CH5CRT08

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
05.4.CO1	3	-	-	-	-	-	-
05.4.CO2	-	2	-	-	-	-	-
05.4.CO3	-	-	-	-	-	3	-
05.4.CO4	-	-	-	-	-	-	2
05.4.CO5	-	-	-	-	3	-	-

MAPPING OF CO AND PSO FOR THE COURSE "Physical Chemistry II"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Chemistry in Everyday Life
COURSE CODE: CH5COPT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
05.5.CO1	-	-	-	3	-	-	-
05.5.CO2	-	-	-	-	-	3	-
05.5.CO3	-	3	-	-	-	-	-
05.5.CO4	-	-	-	-	-	-	3
05.5.CO5	-	-	-	-	-	-	2
05.5.CO6	-	-	-	3	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE
"Chemistry in Everyday Life"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Inorganic Chemistry
COURSE CODE: CH6CRT09

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
06.1.CO1	3	-	-		-	-	-
06.1.CO2	-	3	-	-	-		-
06.1.CO3	-		-	-	-	3	-
06.1.CO4	-	-	-	-	-	2	
06.1.CO5	-	-	-	-	3	-	

MAPPING OF CO AND PSO FOR THE COURSE "Inorganic Chemistry"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Organic Chemistry IV
COURSE CODE: CH6CRT 10

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
06.2.CO1	3	-	-	-	-	-	-
06.2.CO2	-	2	-	-	-	1	-
06.2.CO3	-		-	-	-	3	-
06.2.CO4	-	-	-	-	3	-	-
06.2.CO5	3	-	-	-	-	-	-
06.2.CO6	-	-	-	-	-	3	-

MAPPING OF CO AND PSO FOR THE COURSE "Organic Chemistry IV"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: physical Chemistry III
COURSE CODE: CH6CRT 11

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
06.3.CO1	3	-	-	-	-	-	-
06.3.CO2	-	3	-	-	-		-
06.3.CO3	-		-	-	3		-
06.3.CO4	-	-	-	-		2	-
06.3.CO5		-	-	-	-	3	-
06.3.CO6	-	-	3	-	-		

MAPPING OF CO AND PSO FOR THE COURSE "Physical Chemistry III"

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: physical Chemistry IV
COURSE CODE: CH6CRT 12

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
06.4.CO1	3	-	-	-	-	-	-
06.4.CO2	-	3	-	-	-	-	-
06.4.CO3	-	-	3	-	-	-	-
06.4.CO4	-	-	-	-	3	-	-
06.4.CO5	-	-	-	-	-	2	-

MAPPING OF CO AND PSO FOR THE COURSE "Physical Chemistry IV"

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ISBN: 978-93-85657-41-2

PROGRAMME: B.Sc. CHEMISTRY
COURSE TITLE: Polymer Chemistry
COURSE CODE: CH6CBT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
06.5.CO1	3	-	-	-	-	-	-
06.5.CO2	-		-	-	2	-	-
06.5.CO3	-	2		-	-	-	-
06.5.CO4	-	-	-	-		3	-
06.5.CO5	-	-	-	-	-		3

MAPPING OF CO AND PSO FOR THE COURSE "Polymer Chemistry"

ASSESSMENT TOOLS

1. INTERNAL EXAMINATION

B. Sc DEGREE (CBCS) CHEMISTRY (CORE)
I SEM INTERNAL EXAMINATION

CH1CRT01: GENERAL AND ANALYTICAL CHEMISTRY

Time: 1 hour Max marks: 20

Section A: Answer any five. 1 mark each

1. Distinguish between molarity and molality. (Analyzing, 1.CO2, PSO2)
2. Name any one acid-base indicator with its pH range. (Remembering, 1.CO1, PSO1)
3. Arrange the following elements in the increasing order of metallic character, Al, Mg, K (Applying, 1.CO2, PSO2)
4. Name any one acid-base indicator with its pH range. (Remembering 1.CO1 PSO1)
5. Give two examples for a redox indicator. (Remembering, 1.CO1, PSO1)
6. Define Rf value. (Remembering, 1.CO1, PSO1)

Section B: Answer any one. 5 mark each.

7. A good scientist is discovery prone. Do you agree with this? Justify (Evaluating, 1.CO, 2 PSO2)
8. Propose the electronic configuration, position in periodic table and characteristics of an imaginary element with atomic number 122 (Creating, 1.CO2, PSO2)

Section C: Answer any one. 10 mark each.

9. Examine Slater's rule with examples. (Analyzing, 1.CO4, PSO5)
10. Illustrate gravimetric estimation of Barium. (Applying, 1.CO3, PSO3)

2. END SEMESTER EXAMINATION

B. Sc DEGREE (CBCS) CHEMISTRY (CORE) I SEM EXAMINATION

CH1CRT01: GENERAL AND ANALYTICAL CHEMISTRY

Time: 3 hours Max marks: 60

Section A: Answer any ten. 1 mark each

11. Differentiate between Law and Hypothesis. (Understanding, 1.CO1, PSO1)
12. Give an example for a scientific statement. (Remembering, 1.CO1, PSO1)
13. Distinguish between molarity and molality. (Analyzing, 1.CO2, PSO2)
14. Define modern periodic law. (Remembering, 1.CO1, PSO1)
15. How does metallic character vary in a group? (Evaluating, 1.CO2, PSO2)
16. Calculate the number of significant figures in 1.0062 (Applying, 1.CO5, PSO6)
17. Which one is larger Cl or Cl-? Justify the answer. (Evaluating, 1.CO2, PSO2)
18. Arrange the following elements in the increasing order of metallic character, Al, Mg, K (Applying, 1.CO2, PSO2)
19. Name any one acid-base indicator with its pH range. (Remembering, 1.CO1, PSO1)
20. Give two examples for a redox indicator. (Remembering, 1.CO1, PSO1)
21. Write the S.I. Units of luminous intensity and electric current (Remembering, 1.CO1, PSO1)
22. Define Rf value. (Remembering, 1.CO1, PSO1)

Section B: Answer any six. 5 mark each.

23. Distinguish between inductive and deductive reasoning. (Analyzing, 1.CO2, PSO2)
24. Propose the electronic configuration, position in periodic table and characteristics of an imaginary element with atomic number 122 (Creating, 1.CO2, PSO2)
15. A good scientist is discovery prone. Do you agree with this? Justify (Evaluating, 1.CO2, PSO2)

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16. Discuss the principle of solvent extraction? (Understanding, 1.CO3, PSO3)
17. Examine the difference between molarity and molality? (Analyzing, 1.CO3, PSO3)
18. Calculate mean and standard deviation of the following data, 0.752, 0.756, 0.752, 0.751, and 0.760 (Applying, 1.CO5, PSO6)
19. State and explain Pauling's scale of electronegativity. (Remembering, 1.CO2, PSO2)
20. How will you eliminate the interfering anions in qualitative inorganic analysis? (Analyzing, 1.CO3, PSO3)
21. Illustrate how solubility product is applied in qualitative inorganic analysis. (Applying, 1.CO3, PSO3)

Section C: Answer any 2. 10 mark each.

22. Explain the role of Chemistry as a central science connecting other branches of science. (Understanding, 1.CO1, PSO1)
23. Examine Slater's rule with examples. (Analyzing, 1.CO4, PSO5)
24. Illustrate gravimetric estimation of Barium. (Applying, 1.CO3, PSO3)
25. Briefly explain the principle, procedure and applications of TLC and column chromatography. (Applying, 1.CO1, PSO1)

3. SEMINAR (Sample Format)

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Content					
Presentation					
Technology					
Communication					
Interaction & Discussion					

4. ASSIGNMENT

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Relevance of content					
Systematic Presentation					
Methodology					
Punctuality					
Timely Submission					

5. PRACTICAL

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Skill					
Theoretical knowledge					
Setting up of experiment					
Result					
Time bound					

6. FIELD VISIT

Name of the student

Programme

Course

Academic year

Register Number

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	Excellent	Very Good	Good	Average	Below Average
Planning for visit					
Place of importance					
Reporting					
Interaction					

7. VIVA

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Knowledge					
Presentation					

8. PROJECT

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Punctuality					
Experimentation					
Data Collection					
Knowledge					
Report					

9. QUIZ

Name of the student

Programme

Course

Academic year

Register Number

Excellent ≥90%	Very Good ≥80%	Good ≥65%	Average ≥ 50%	Below Average < 50%

10. REFLECTIVE JOURNAL

Name of the student

Programme

Course

Academic year

Register Number

Sl. No	Date	Content outline	Learning strategies	Reflections	Remarks of teacher
1					
2					
3					

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B.Sc. Physics - Model 1

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO	PSO Statement
PSO1	Develop deep understanding on various physical phenomena and the general theories related to it.
PSO2	Impart scientific aptitude through finding problems and solving them.
PSO3	Enhance practical skills and competencies to conduct scientific experiments.
PSO4	Create analytical thinking and draw inferences from experimental data.
PSO5	Encourage students to develop computational skills.
PSO6	Generate environmental consciousness and awe for nature.
PSO7	Expertise the students to organise events and transfer knowledge through effective communication.
PSO8	Equip the students with globally competent skills, research aptitude and self reliance.

COURSE OUTCOMES

CORE COURSES

Course Code	Course Title	PSO	CO	
Semester: I				
PH1CRT01	Methodology and Perspectives of Physics	PSO1 PSO6	1.CO1	To examine the evolution of Physics and hence open up their minds to new ideas and ways of thinking
		PSO3 PSO4	1.CO2	Appraise the use of measuring and instrumental tools for practicing Physics
		PSO1 PSO2 PSO4 PSO7	1.CO3	Identify the necessity of measurements in physics, estimation of errors and uncertainty
		PSO2 PSO5	1.CO4	Develop knowledge on different number systems and their conversion process and to identify the application of binary numbers in computers.

		PSO4 PSO5 PSO7	1.CO5	Develop ideas of different coordinate systems and their applications in various kinds of problems in physics.

Semester: II

PH2CRT02	Mechanics and Properties of Matte	PSO1 PSO6	2.CO1	Acquire a basic knowledge of the physics principles in Mechanics
		PSO4 PSO5	2.CO2	Differentiate between translational and rotational motion, find the moment of inertia of different shapes and objects
		PSO2 PSO4	2.CO3	Understand the principles of elasticity and solve practice problems through evaluating the relationship between stress and strain
		PSO3	2.CO4	Develop basic skills to perform experiments for understanding different concepts in properties of matter
		PSO1 PSO2 PSO6	2.CO5	To understand the concept of conservation of energy and angular momentum and should be able to solve problems related to it
		PSO1	2.CO6	To understand the principles that govern the flow of fluids
		PSO1 PSO7	2.CO7	understand the physical concepts behind SHM and should be able to reproduce the theory to physical systems that execute SHM

Semester: III

PH3CRT03	Optics, Laser ander Optics	PSO1 PSO2 PSO6	03.CO 1	Explain the physics behind different optical phenomena in everyday life
		PSO3 PSO4	03. CO2	Compare the different properties of light in the context of wave nature of light
		PSO2 PSO3 PSO4	03. CO3	Discover different optical phenomena observed in nature
		PSO2 PSO3 PSO4	03. CO4	Critically analyse the conditions for the attainment of optical phenomena in thin films, gratings, prisms etc.
		PSO1 PSO2 PSO6 PSO8	03 CO5	Illustrate the working principle of different types of optical devices and categorise them for various applications.

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Semester: IV

Course Code	Course Title	PSO	CO	
PH4CRT04	Semiconductor Physics	PSO1 PSO2 PSO3	04.CO1	Understand semiconducting devices and their characteristics
		PSO1 PSO2 PSO3 PSO4	04.CO2	Apply the knowledge to correlate various parameters of the semiconducting devices
		PSO1 PSO2 PSO3 PSO4	04.CO3	Examine semiconducting circuits in various contexts.
		PSO2 PSO3 PSO4 PSO8	04.CO4	Critically analyse circuits to find the optimum operating conditions
		PSO1 PSO2 PSO4	04.CO5	Analyse the different types of modulation processes.
		PSO4 PSO7 PSO8	04.CO6	Customize circuits from the knowledge acquired.

Semester: V

Course Code	Course Title	PSO	CO	
PH5CRT05	Electricity and Electrodynamics	PSO1 PSO2	05.CO1	Recall the basics of electrostatics and magnetostatics
		PSO1	05.CO2	Explain the various laws associated with electricity and electrodynamics
		PSO1 PSO2 PSO3 PSO4	05.CO3	Apply the principles of electrostatics and magnetostatics under specific boundary conditions.
		PSO1 PSO2 PSO3 PSO4 PSO7	05.CO4	Solve electrical circuits using Network Theorems
		PSO1 PSO2 PSO4 PSO6	05.CO5	Evaluate the implications of Maxwell's equations in electromagnetic theory

PH5CRT06	Classical and Quantum Mechanics	PSO1 PSO2 PSO4	06.CO1	Explain fundamentals in Classical Mechanics
		PSO2 PSO3 PSO4	06.CO2	Solve classical systems using Lagrangian and Hamiltonian methods
		PSO1 PSO2 PSO6	06.CO3	Recall historical developments and origin of quantum mechanics
		PSO1 PSO2 PSO4	06.CO4	Understand the general formalism and postulates of quantum mechanics
		PSO2 PSO4 PSO8	06. CO5	Solve Schrodinger equation for certain quantum mechanical systems
		PSO2 PSO4 PSO7	06.CO6	Differentiate Classical and Quantum mechanical systems

PH5CRT07	Digital Electronics and Programming	PSO1	07.CO1	Understand the rules and laws of Boolean algebra
		PSO1 PSO2 PSO3	07.CO2	Analyse and simplify logic circuits using Boolean algebra and De-Morgan's theorem
		PSO1 PSO3	07.CO3	Explain combinational logic circuits
		PSO3 PSO4	07.CO4	Construct sequential logic circuits
		PSO2 PSO4 PSO5	07.CO5	Execute simple C++ programs

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PH5CRT08	Environmental Physics and Human Rights	PSO1 PSO2 PSO4 PSO6	08.CO1	Acquire basic knowledge about the multidisciplinary nature of environmental science and international efforts to safeguard the environment.
		PSO2 PSO4 PSO6 PSO8	08.CO2	Identify various types of natural resources, human impact on these resources, and common resource management practices and relate it with the goals, challenge and global strategies for sustainable development.
		PSO2 PSO4 PSO6 PSO8	08.CO3	Discuss the types of ecosystems, factors impacting biodiversity loss and ecosystem degradation and major conservation strategies.
		PSO2 PSO4 PSO6 PSO8	08.CO4	Critically examine different kinds of pollution, climate change, environmental treaties and legislation, thereby arguing them to act so as to preserve and protect the environment.
		PSO6 PSO7 PSO8	08.CO5	Critically analyse the human rights violation, its causes and potential solutions
		PSO4 PSO6 PSO7 PSO8	08.CO6	Develop a critical understanding of the major national and international environmental issues of concern and importance of human rights in the Indian constitution

Semester: VI

Course Code	Course Title	PSO	CO	
PH6CRT09	Thermal and Statistical Physics	PSO1 PSO3	9.CO1	Develop a basic knowledge required to design devices to convert heat into work and vice versa
		PSO1 PSO3 PSO4	9.CO2	Analyse various thermodynamic processes and work done in each of these processes
		PSO1	9.CO3	Distinguish reversible and irreversible processes.
		PSO1 PSO3	9.CO4	Explain the working of a Carnot engine
		PSO4	9.CO5	Discuss the various statistical distributions followed by different particles

Course Code	Course Title	PSO	CO	
PH6CRT10	Relativity and Spectroscopy	PSO1 PSO2 PSO4 PSO5 PSO6	10.CO1	Develop a conceptual understanding of special and general theories of relativity
		PSO1 PSO2 PSO4 PSO6	10.CO2	Distinguish atomic and molecular behaviors that give rise to various spectrums
		PSO2 PSO3 PSO4 PSO7	10.CO3	Explain effects in atomic spectra under the application of different fields
		PSO2 PSO3 PSO4 PSO8	10.CO4	Interpret spectroscopic data to analyse underlying physical processes
		PSO3 PSO4 PSO5 PSO8	10.CO5	Develop a working knowledge of spectroscopic methods currently used in various scientific fields.

Course Code	Course Title	PSO	CO	
PH6CRT11	Nuclear, Particle Physics and Astrophysics	PSO1 PSO2	11.CO1	Categorize various elementary particles and their impact on physical processes
		PSO1 PSO2	11.CO2	Identify various nuclear and subatomic phenomena
		PSO1	11.CO3	Explain the stellar evolution processes and the nuclear fusion processes inside stars.
		PSO1	11.CO4	Discuss various nuclear models like shell model and liquid drop model
		PSO1 PSO6	11.CO5	Basic knowledge of different nuclear reactors

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PH6CRT12	Solid State Physics	PSO1 PSO2 PSO6	12.CO1	Recall the different concepts of crystal structure in material science
		PSO2 PSO3 PSO4	12.CO2	Classify the solids, their bonding and explain the theories associated with it
		PSO2 PSO3 PSO4 PSO7 PSO8	12.CO3	Develop an understanding on the principles behind semiconductor materials and devices
		PSO1 PSO4 PSO6 PSO8	12.CO4	Correlate the effect of electric and magnetic fields on materials
		PSO1 PSO2 PSO4 PSO8	12.CO5	Explain superconductivity on the basis of electromagnetic theory and deduce its applications.
PH6CBT05	Astronomy and Astrophysics	PSO1 PSO2	CO1	Understand the distance scales used in Astronomy
		PSO1 PSO2 PSO3	CO2	Practice to locate a celestial objects from its coordinates
		PSO1 PSO7	CO3	Describe structure and properties of Milky Way, Sun and solar system bodies
		PSO1 PSO2 PSO4	CO4	Explain stellar birth and evolution
		PSO1 PSO8	CO5	Describe the origin, evolution and future of universe
		PSO3 PSO7	CO6	Compare different types of telescopes used in astronomical observations

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Methodology and Perspectives of Physics
COURSE CODE: PH1CRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
1.CO1	3	-	-	-	-	2	-	-
1.CO2	–	-	3	3	-	-	-	-
1.CO3	1	2	-	2	-	-	3	-
1.CO4	-	1	-	-	3	-	-	-
1.CO5	-	-	-	2	2	-	3	-

MAPPING OF CO AND PSO FOR THE COURSE "Methodology and Perspectives of Physics"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Mechanics and Properties of Matter
COURSE CODE: PH2CRT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
2.CO1	3	-	-	-	-	1	-	
2.CO2	–	-	-	3	2	-	-	
2.CO3	-	3	-	2	-	-	-	
2.CO4	-	-	3	-	-	-	-	
2.CO5	2	3	-	-	-	1	-	
2.CO6	3	-	-	-	-	-	-	
2.CO7	3	-	-	-	-	-	2	

MAPPING OF CO AND PSO FOR THE COURSE "Mechanics and Properties of Matter"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Optics, Laser and Fiber Optics
COURSE CODE: PH3CRT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
2.CO1	3	3	-	-	-	1	-	-
2.CO2	-	-	3	3	-	-	-	-
2.CO3	-	3	2	2	-	-	-	-
2.CO4	-	3	3	2	-	-	-	-
2.CO5	3	3	-	-	-	1	-	1

MAPPING OF CO AND PSO FOR THE COURSE "Optics, Laser and Fiber Optics"

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PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Semiconductor Physics
COURSE CODE: PH4CRT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
04.CO1	3	3	2	-	-	-	-	-
04.CO2	3	3	3	3	-	-	-	-
04.CO3	3	3	3	3	-	-	-	-
04.CO4	-	2	3	3	-	-	-	1
04.CO5	3	3	-	2	-	-	-	-
04.CO6	-	-	-	3	-	-	1	2

MAPPING OF CO AND PSO FOR THE COURSE "SEMICONDUCTOR PHYSICS"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Electricity and Electrodynamics
COURSE CODE: PH5CRT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
05.CO1	3	1	-	-	-	-	-	-
05.CO2	3	-	-	-	-	-	-	-
05.CO3	3	3	1	2	-	-	-	-
05.CO4	3	3	2	1	-	-	2	-
05.CO5	3	2	-	1	-	2	-	-

MAPPING OF CO AND PSO FOR THE COURSE | "Electricity and Electrodynamics"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Classical and Quantum Mechanics
COURSE CODE: PH5CRT06

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
06.CO1	3	2	-	2	-	-	-	-
06.CO2	-	3	2	2	-	-	-	-
06.CO3	3	3	-	-	-	1	-	-
06.CO4	3	3	-	2	-	-	-	-
06.CO5	-	3	-	2	-	-	-	1
06.CO6	-	2	-	2	-	-	1	-

MAPPING OF CO AND PSO FOR THE COURSE "Classical and Quantum Mechanics"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Digital Electronics and Programming
COURSE CODE: PH5CRT07

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
07.CO1	3	-	-	-	-	-	-	-
07.CO2	3	3	3	-	-	-	-	-
07.CO3	3	-	3	-	-	-	-	-
07.CO4	-	-	3	2	-	-	-	-
07.CO5	-	3	-	3	3	-	-	

MAPPING OF CO AND PSO FOR THE COURSE
"Digital Electronics and Programming"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Environmental Physics and Human Right
COURSE CODE: PH5CRT08

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
08.CO1	3	2	-	2	-	1	-	-
08.CO2	-	3	-	2	-	2	-	1
08.CO3	-	3	-	2	-	2	-	1
08.CO4	-	3	-	2	-	2	-	1
08.CO5	-	-	-	-	-	2	2	2
08.CO6	-	-	-	2	-	2	2	2

MAPPING OF CO AND PSO FOR THE COURSE
"Environmental Physics and Human Right"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Thermal and Statistical Physics
COURSE CODE: PH6CRT09

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
9.CO1	3	-	2	-	-	-	-	-
9.CO2	3	-	2	1	-	-		-
9.CO3	3	-	-	-	-	-	-	-
9.CO4	3	-	2	-	-	-		
9.CO5			-	-	-	-	-	-

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PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Relativity and Spectroscopy
COURSE CODE: PH6CRT10

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
10.CO1	3	3	-	3	2	1	-	-
10.CO2	3	3	-	3		1		-
10.CO3	-	2	3	3		-	2	-
10.CO4	-	2	2	3	-	-		1
10.CO5			2	3	2			1

MAPPING OF CO AND PSO FOR THE COURSE "Relativity and Spectroscopy"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Nuclear, Particle Physics and Astrophysics
COURSE CODE: PH6CRT11

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
11.CO1	3	3	-	-	-	-	-	-
11.CO2	3	1	-	-	-	-	-	-
11.CO3	3	-	-	-	-	-	-	-
11.CO4	3	-	-	-	-	-	-	-
11.CO5	2	-	-	-	-	1	-	-

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Solid State Physics
COURSE CODE: PH6CRT12

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
12.CO1	3	2	-	-	-	-	-	-
12.CO2	-	3	3	2	-	-	-	-
12.CO3	-	2	1	2	-	-	1	1
12.CO4	3			2		2		1
12.CO5	3	2	-	1	-	-	-	1

MAPPING OF CO AND PSO FOR THE COURSE "Solid State Physics"

PROGRAMME: B.Sc. PHYSICS Model I
COURSE TITLE: Astronomy and Astrophysics
COURSE CODE: PH6CBT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PS08
CO1	3	2	-	-	-	-	-	-
CO2	3	3	2	-	-	-	-	-
CO3	3	-	-	-	-	-	2	-
CO4	3	3	-	1	-	-	-	-
CO5	3	-	-	-	-	-	-	1
CO6	-	-	3	-	-	-	2	-

ASSESSMENT TOOLS

1. CLASS TEST (INTERNAL EXAM QUESTION PAPER ATTACHED)

2. SEMESTER EXAM (UNIVERSITY EXAM QUESTION PAPER ATTACHED)

3. LABORATORY TEST (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
THEORY					
EXPERIMENT SETTING					
DATA ANALYSIS					
RESULT AND DISCUSSION					

4. PROJECT (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

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	Excellent	Very Good	Good	Average	Below Average
PUNCTUALITY					
EXPERIMENTATION/ DATA COLLECTION					
KNOWLEDGE					
REPORT					

5. FIELD/INDUSTRIAL/LAB VISIT (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
PLANNING					
VISIT					
REPORT					
INTERACTION					

6. SEMINAR (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
CONTENT					
PRESENTATION					
USE OF TECHNOLOGY					
COMMUNICATION					
INTERACTION AND DISCUSSION					

7. ASSIGNMENT (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
RELEVANCE OF TOPIC					
CONTENT					
PRESENTATION					
METHODOLOGY					
TIMELY SUBMISSION					

8. VIVA

Name of student:

Programme:

Course:

Year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
UNDERSTANDING					
EXPLANATION WITH RELEVENT THEORY					
CRITICAL THINKING					
CLARITY OF PRESENTATION					

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9. REFLECTIVE JOURNAL (SAMPLE FORMAT)

Name of student:

Programme:

Course:

Year:

Register Number:

Sl No	Date	Content Outline	Learning Stratergy	Reflections	Remarks of the Teacher
1.	26/5/2023	Field Visit	Demonstration, Lecture	Understand	Good

END SEMESTER EXAM QUESTION PAPER (SAMPLE)

B.Sc Degree CBCS Regular Examinations March 2023

Fourth Semester

Core Course - PH4CRT04 Semiconductor Physics

Total Time: 3hrs Total Marks: 60

Part A

Answer any ten questions. Each carries1 mark

1. How the variation in temperature affect the barrier voltage? PSO1/CO2 (Explain)
2. What is zener breakdown? PSO1/CO1 (Explain)
3. What is the benefit of a filter circuit PSO3/CO3 (Apply)
4. What is clipper? PSO1/CO1 (Understand)
5. What is the difference between a positive clamping and a negative clamping circuit? PSO3/CO3 (Differentiate)
6. Explain why an ordinary junction transistor is called bipolar PSO1/CO1 (Remember)

7. What are the factors affecting bias variations PSO2/CO2 (Explain)
8. What do you mean by single stage transistor amplifier PSO1/CO1 (Remember)
9. Write down the expression for power gain in bel and decibel PSO1/CO1 (Remember)
10. Write the advantages and disadvantages of Colpitt's oscillator PSO3/CO3 (Evaluate)
11. Define Channel of a FET PSO1/CO1 (Explain)
12. Explain the effects of an AM, whose percentage modulation is greater than 100% PSO4/CO5 (Evaluate)

Part B

Answer any six questions. Each carries 5 marks.

13. A crystal diode having internal resistance r=30Ω is used for half wave rectification. If the applied voltage v= 24 Sinωt and load resistance R_L = 400 Ω, find (i) I_dc, I_m, I_rms (ii) dc power output and ac power input (iii) dc output voltage (iv)efficiency of rectification. PSO2/CO2 (Apply)
14. A 10V zener diode is used to regulate the voltage across a variable load resistor. The input voltage varies between 12 to 18 V. The load current I_L varies between 5 to 100 mA. The minimum zener current is 20mA. Find (i) the maximum value of series resistance R and (ii) the maximum power dissipated by the zener diode using this value of series resistance. PSO3/CO4 (Apply)
15. Define **α**, □, ***γ*** of a transistor. Derive the relation between them. PSO1/CO1 (Remember)
16. A germanium transistor had I_CBO = 10μ A, **α**= 0.98 and I_C = 1mA . Determine the emitter current and □ of the transistor. PSO2/CO2 (Solve)
17. In a negative feedback amplifier A= 100, □= 0.04 and V_i =50 V. Find (i) gain with feedback (ii) output voltage (iii) feedback factor and (iv) feedback voltage. PSO4/CO2 (Solve)
18. What are the characteristics of an ideal op-amp. PSO1/CO1 (Remember)
19. Draw and explain the V-I characteristics of a P-N junction diode. PSO1/CO1 (Understand)

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20. Find the voltage gain and output voltage of a non-inverting amplifier with R_f = 68KΩ , R_1 = 1KΩ and input voltage =1V. Given supply voltage = 15V Comment on the result . PSO4/CO3 (Solve, Evaluate)

21. A 1MHz carrier is modulated with 900Hz audio signals. What are the frequencies of first pair of sidebands? PSO2/CO5 (Apply)

Part C
Answer any two questions. Each carries 10 marks

22. What are diode parameters? Briefly explain how to test a diode? What is an ideal diode? PSO1/CO1 (Remember)

23. Draw the circuit diagram of CE configuration of a transistor. Draw and explain the input and output characteristics. PSO1/CO3 (Understand)

24. Draw and explain RC phase shift oscillator. PSO3/CO3 (Understand)

25. Explain amplitude modulation. Derive an expression for the instantaneous amplitude of an amplitude modulated wave. Explain the side band frequencies and band width. PSO1/CO5 (Understand)

CLASS TEST QUESTIOJN PAPER (Sample)

ALPHONSA COLLEGE, PALA

INTERNAL EXAMINATION DECEMBER 2022

C.B.C.S Core Course Physics, Semester I

PH1CRT01 – Methodology and Perspectives of Physics

Time:1 hour Max. Marks: 20

PART A
Answer any 5 (Marks 2)

1. Explain BCD with an example. (CO4-PSO2) (K-Explain)
2. Identify the major contribution of C V Raman to diffraction of light. (CO1-PSO1) (K- identify)
3. Write a short note on radar. (CO2-PSO4) (k-recite)
4. Convert the hexadecimal (2A5) to binary. (CO4-PSO2)(Apply- solve)

5. Explain the working of GPS. (CO3-PSO2) (K-Explain)
6. Distinguish Gradient, divergence and curl. (CO5- PSO4)(Understand-compare)
7. Point out the characteristics of hexadecimal number systems. (CO4-PSO2) (Apply- sketch)

PART B

Answer any 2 (Marks 5)

8. What is 2's complement subtraction? Subtract
   (a) (1010) from (1111)
   (b) (1100) from (1001) using 2's complement method. (C04-PSO5) (Apply- Solve)
9. Explain the term 'Least Count of the instrument' with the help of a screw gauge. Which are the different instruments used for the estimation of all small distances? Illustrate. (CO3-PSO2,PSO7)(Analyze- Illustrate)
10. Discuss the contributions of Isaac Newton in starting the new era of Physics. (CO1-PSO6) (Evaluate- Reflect)

QUIZ (Sample)

Alphonsa College, Pala Department of Physics

PH1CRT01

Quiz-1 - Measuring Instruments and Measurements

Time : 10 minutes Points: 10

1. A voltmeter is a galvanometer with …. PSO3/CO2
2. The least count of a screw gauge is… PSO1/CO3
3. Ammeter used for measuring current is connected….. PSO3/CO2
4. The least count of a Vernier caliper having one main scale division as x cm and number of divisions on vernier scale as n is… PSO2/CO3
5. An ideal ammeter has… resistance PSO3/CO2
6. The zero reading on head scale of a screw gauge is 5 divisions below the pitch scale mark. The zero error is… PSO2/CO3
7. A galvanometer is converted to ammeter by connecting…. PSO3/CO2
8. What is the percentage of uncertainty in the volume of a ball of radius (0.84 ± 0.04)m? PSO4/CO3
9. The refractive index of glass was observed to be 1.45, 1.56, 1.54, 1.44, 1.54 and 1.53 . The mean absolute error in the experiment is….. PSO4/CO3
10. Round 24.8514 to three significant figures. PSO4/CO3

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B.Sc. Physics - Model 2

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO	PSO Statement
PSO1	Develop deep understanding on various physical phenomena and the general theories related to it.
PSO2	Impart scientific aptitude through finding problems and solving them.
PSO3	Enhance practical skills and competencies to conduct scientific experiments.
PSO4	Create analytical thinking and draw inferences from experimental data.
PSO5	Develop vocational expertise in computational skills.
PSO6	Generate environmental consciousness and awe for nature.
PSO7	Expertise the students to organize events and transfer knowledge through effective communication.
PSO8	Equip the students with globally competent skills, research aptitude and self reliance.

COURSE OUTCOMES

CORE COURSES

Semester: I

Course Code	Course Title	PSO	CO	
PH1CRT01	Methodology and Perspectives of Physics	PSO1 PSO6	1.CO1	To examine the evolution of Physics and hence open up their minds to new ideas and ways of thinking
		PSO3 PSO4	1.CO2	Appraise the use of measuring and instrumental tools for practicing Physics
		PSO1 PSO2 PSO4 PSO7	1.CO3	Identify the necessity of measurements in physics, estimation of errors and uncertainty
		PSO2 PSO5	1.CO4	Develop knowledge on different number systems and their conversion process and to identify the application of binary numbers in computers.
		PSO4 PSO5 PSO7	1.CO5	Develop ideas of different coordinate systems and their applications in various kinds of problems in physics.

Semester: II

Course Code	Course Title	PSO	CO	
PH2CRT02	Mechanics and Properties of Matte	PSO1 PSO6	2.CO1	Acquire a basic knowledge of the physics principles in Mechanics
		PSO4 PSO5	2.CO2	Differentiate between translational and rotational motion, find the moment of inertia of different shapes and objects
		PSO2 PSO4	2.CO3	Understand the principles of elasticity and solve practice problems through evaluating the relationship between stress and strain
		PSO3	2.CO4	Develop basic skills to perform experiments for understanding different concepts in properties of matter
		PSO1 PSO2 PSO6	2.CO5	To understand the concept of conservation of energy and angular momentum and should be able to solve problems related to it
		PSO1	2.CO6	To understand the principles that govern the flow of fluids
		PSO1 PSO7	2.CO7	understand the physical concepts behind SHM and should be able to reproduce the theory to physical systems that execute SHM

Semester: III

Course Code	Course Title	PSO	CO	
PH3CRT03	Optics, Laser ander Optics	PSO1 PSO2 PSO6	03.CO 1	Explain the physics behind different optical phenomena in everyday life
		PSO3 PSO4	03. CO2	Compare the different properties of light in the context of wave nature of light
		PSO2 PSO3 PSO4	03. CO3	Discover different optical phenomena observed in nature
		PSO2 PSO3 PSO4	03. CO4	Critically analyse the conditions for the attainment of optical phenomena in thin films, gratings, prisms etc.
		PSO1 PSO2 PSO6 PSO8	03 CO5	Illustrate the working principle of different types of optical devices and categorise them for various applications.

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Semester: IV

Course Code	Course Title	PSO	CO	
PH4CRT04	Semiconductor Physics	PSO1 PSO2 PSO3	04.CO1	Understand semiconducting devices and their characteristics
		PSO1 PSO2 PSO3 PSO4	04.CO2	Apply the knowledge to correlate various parameters of the semiconducting devices
		PSO1 PSO2 PSO3 PSO4	04.CO3	Examine semiconducting circuits in various contexts.
		PSO2 PSO3 PSO4 PSO8	04.CO4	Critically analyse circuits to find the optimum operating conditions
		PSO1 PSO2 PSO4	04.CO5	Analyse the different types of modulation processes.
		PSO4 PSO7 PSO8	04.CO6	Customize circuits from the knowledge acquired.

Semester: V

Course Code	Course Title	PSO	CO	
PH5CRT05	Electricity and Electrodynamics	PSO1 PSO2	05.CO1	Recall the basics of electrostatics and magnetostatics
		PSO1	05.CO2	Explain the various laws associated with electricity and electrodynamics
		PSO1 PSO2 PSO3 PSO4	05.CO3	Apply the principles of electrostatics and magnetostatics under specific boundary conditions.
		PSO1 PSO2 PSO3 PSO4 PSO7	05.CO4	Solve electrical circuits using Network Theorems
		PSO1 PSO2 PSO4 PSO6	05.CO5	Evaluate the implications of Maxwell's equations in electromagnetic theory

PH5CRT06	Classical and Quantum Mechanics	PSO1 PSO2 PSO4	06.CO1	Explain fundamentals in Classical Mechanics
		PSO2 PSO3 PSO4	06.CO2	Solve classical systems using Lagrangian and Hamiltonian methods
		PSO1 PSO2 PSO6	06.CO3	Recall historical developments and origin of quantum mechanics
		PSO1 PSO2 PSO4	06.CO4	Understand the general formalism and postulates of quantum mechanics
		PSO2 PSO4 PSO8	06. CO5	Solve Schrodinger equation for certain quantum mechanical systems
		PSO2 PSO4 PSO7	06.CO6	Differentiate Classical and Quantum mechanical systems

PH5CRT07	Digital Electronics and Programming	PSO1	07.CO1	Understand the rules and laws of Boolean algebra
		PSO1 PSO2 PSO3	07.CO2	Analyse and simplify logic circuits using Boolean algebra and De-Morgan's theorem
		PSO1 PSO3	07.CO3	Explain combinational logic circuits
		PSO3 PSO4	07.CO4	Construct sequential logic circuits
		PSO2 PSO4 PSO5	07.CO5	Execute simple C++ programs

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PH5CRT08	Environmental Physics and Human Rights	PSO1 PSO2 PSO4 PSO6	08.CO1	Acquire basic knowledge about the multidisciplinary nature of environmental science and international efforts to safeguard the environment.
		PSO2 PSO4 PSO6 PSO8	08.CO2	Identify various types of natural resources, human impact on these resources, and common resource management practices and relate it with the goals, challenge and global strategies for sustainable development.
		PSO2 PSO4 PSO6 PSO8	08.CO3	Discuss the types of ecosystems, factors impacting biodiversity loss and ecosystem degradation and major conservation strategies.
		PSO2 PSO4 PSO6 PSO8	08.CO4	Critically examine different kinds of pollution, climate change, environmental treaties and legislation, thereby arguing them to act so as to preserve and protect the environment.
		PSO6 PSO7 PSO8	08.CO5	Critically analyse the human rights violation, its causes and potential solutions
		PSO4 PSO6 PSO7 PSO8	08.CO6	Develop a critical understanding of the major national and international environmental issues of concern and importance of human rights in the Indian constitution

Semester: VI

Course Code	Course Title	PSO	CO	
PH6CRT09	Thermal and Statistical Physics	PSO1 PSO3	9.CO1	Develop a basic knowledge required to design devices to convert heat into work and vice versa
		PSO1 PSO3 PSO4	9.CO2	Analyse various thermodynamic processes and work done in each of these processes
		PSO1	9.CO3	Distinguish reversible and irreversible processes.
		PSO1 PSO3	9.CO4	Explain the working of a Carnot engine
		PSO4	9.CO5	Discuss the various statistical distributions followed by different particles

Course Code	Course Title	PSO	CO	
PH6CRT10	Relativity and Spectroscopy	PSO1 PSO2 PSO4 PSO5 PSO6	10.CO1	Develop a conceptual understanding of special and general theories of relativity
		PSO1 PSO2 PSO4 PSO6	10.CO2	Distinguish atomic and molecular behaviors that give rise to various spectrums
		PSO2 PSO3 PSO4 PSO7	10.CO3	Explain effects in atomic spectra under the application of different fields
		PSO2 PSO3 PSO4 PSO8	10.CO4	Interpret spectroscopic data to analyse underlying physical processes
		PSO3 PSO4 PSO5 PSO8	10.CO5	Develop a working knowledge of spectroscopic methods currently used in various scientific fields.

Course Code	Course Title	PSO	CO	
PH6CRT11	Nuclear, Particle Physics and Astrophysics	PSO1 PSO2	11.CO1	Categorize various elementary particles and their impact on physical processes
		PSO1 PSO2	11.CO2	Identify various nuclear and subatomic phenomena
		PSO1	11.CO3	Explain the stellar evolution processes and the nuclear fusion processes inside stars.
		PSO1	11.CO4	Discuss various nuclear models like shell model and liquid drop model
		PSO1 PSO6	11.CO5	Basic knowledge of different nuclear reactors

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PH6CRT12	Solid State Physics	PSO1 PSO2 PSO6	12.CO1	Recall the different concepts of crystal structure in material science
		PSO2 PSO3 PSO4	12.CO2	Classify the solids, their bonding and explain the theories associated with it
		PSO2 PSO3 PSO4 PSO7 PSO8	12.CO3	Develop an understanding on the principles behind semiconductor materials and devices
		PSO1 PSO4 PSO6 PSO8	12.CO4	Correlate the effect of electric and magnetic fields on materials
		PSO1 PSO2 PSO4 PSO8	12.CO5	Explain superconductivity on the basis of electromagnetic theory and deduce its applications.
PH6CBT05	Astronomy and Astrophysics	PSO1 PSO2	CO1	Understand the distance scales used in Astronomy
		PSO1 PSO2 PSO3	CO2	Practice to locate a celestial objects from its coordinates
		PSO1 PSO7	CO3	Describe structure and properties of Milky Way, Sun and solar system bodies
		PSO1 PSO2 PSO4	CO4	Explain stellar birth and evolution
		PSO1 PSO8	CO5	Describe the origin, evolution and future of universe
		PSO3 PSO7	CO6	Compare different types of telescopes used in astronomical observations

Course Code	Course Title	PSO	CO	
CA1VOT01	Computer Fundamentals	PSO1 PSO2 PSO3 PSO5 PSO6 PSO7 PSO8	1.CO1	Bridge the fundamental concepts of computers with the present level of knowledge of the students.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	1.CO2	Understand the basic organization and working of a computer.
		PSO1 PSO2 PSO3	1.CO3	Understand the number system arithmetic related to the computers.
		PSO1 PSO4 PSO8	1.CO4	Understand how various devices in the Input Unit. Output Unit and Storage Unit work.
		PSO1 PSO5 PSO6 PSO7 PSO8	1.CO5	Familiarize various Software components and types of computer languages.

Course Code	Course Title	PSO	CO	
CA1VOT02	Computer Networks & Internet Technologies	PSO1 PSO3 PSO4 PSO5 PSO7 PSO8	2.CO1	Familiarize the concept of Computer Networks, Data Communication along with its types, need and applications.
		PSO1 PSO4 PSO5 PSO6 PSO7 PSO8	2.CO2	Understand the Data Transmission Media, LAN Topologies and Networking Devices
		PSO1 PSO3 PSO5 PSO7 PSO8	2.CO3	Understand various network models and distinguish between them

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		PSO1 PSO5 PSO6 PSO7 PSO8	2.CO4	Understand WWW along with its major components.
		PSO1 PSO3 PSO5 PSO6 PSO7 PSO8	2.CO5	Understand the concept of Internet and its applications

Course Code	Course Title	PSO	CO	
CA2VOT03	Word and Data Processing Packages	PSO1 PSO3 PSO4 PSO5 PSO7 PSO8	3.CO1	Familiarize Microsoft Word Processing Package and identifying its various features.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	3.CO2	Understand the basics formatting techniques and tools of MS word.
		PSO1 PSO2 PSO3 PSO5 PSO7 PSO8	3.CO3	Familiarize the Publishing tool Adobe Page Maker and identifying its various features.
		PSO1 PSO2 PSO3 PSO5 PSO7 PSO8	3.CO4	Understand various tools and palettes of Adobe Page Maker.
		PSO1 PSO2 PSO3 PSO5 PSO7 PSO8	3.CO5	Familiarize Microsoft Excel spread sheet application and identifying its various features.

Course Code	Course Title	PSO	CO	
CA2VOT04	Programming in ANSI C	PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	4.CO1	Understand basic concepts of Programming Language including basic steps in developing a program.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	4.CO2	Understand the control structures used in ANSI C programming.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	4.CO3	Apply the concept of Control Structures
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	4.CO4	Understand various the concept of data storage in memory especially using arrays.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	4.CO5	Understand the concept code reusability with the help of Functions in ANSI C programming.

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Course Code	Course Title	PSO	CO	
CA3VOT05	Concepts of Object Oriented Programming	PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	5.CO1	Understand the difference between the top-down and bottom-up approach
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	5.CO2	Describe the object-oriented programming approach in connection with C++.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	5.CO3	Apply the concepts of object-oriented programming.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	5.CO4	Illustrate the process of data file manipulations using C++.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	5.CO5	Apply virtual and pure virtual function & complex programming situations.

Course Code	Course Title	PSO	CO	
CA3VOT06	Operating System	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8	6.CO1	Discuss fundamental concepts, structure and design of operating Systems.
		PSO1 PSO2 PSO4 PSO8	6.CO2	Understand Process and Process Management.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	6.CO3	Understand CPU Scheduling concepts.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	6.CO4	Apply CPU Scheduling algorithms.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	6.CO5	Understand Memory Management techniques, Deadlocks and file systems.

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Course Code	Course Title	PSO	CO	
CA4VOT07	Visual Basic Programming	PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	7.CO1	Understand the concept of Event Driven Programming Languages using Visual Basic 6.0
		PSO1 PSO2 PSO4 PSO8	7.CO2	Understand the intrinsic controls in VB 6.0
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	7.CO3	Implement VB 6.0 Events, Methods and Procedures
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	7.CO4	Apply various VB 6.0 procedures
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	7.CO5	Understand File handling techniques in VB 6.0

Course Code	Course Title	PSO	CO	
CA4VOT08	Web Development and PHP Programming	PSO1 PSO2 PSO3 PSO4 PSO5 PSO7 PSO8	8.CO1	Describe fundamentals of web and Introduce the creation of static webpage using HTML.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	8.CO2	Describe the importance of CSS in web development.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	8.CO3	Describe the function of JavaScript as a dynamic webpage creating tool.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	8.CO4	Distinguish PHP as a server side programming language.
		PSO1 PSO2 PSO3 PSO4 PSO5 PSO8	8.CO5	Implement the concept of MySQL as a backend DBMS with PHP.

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PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Methodology and Perspectives of Physics
COURSE CODE: PH1CRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
1.CO1	3	-	-	-	-	2	-	-
1.CO2	–	-	3	3	-	-	-	-
1.CO3	1	2	-	2	-	-	3	-
1.CO4	-	1	-	-	3	-	-	-
1.CO5	-	-	-	2	2	-	3	-

MAPPING OF CO AND PSO FOR THE COURSE "Methodology and Perspectives of Physics"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Mechanics and Properties of Matter
COURSE CODE: PH2CRT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
2.CO1	3	-	-	-	-	1	-	
2.CO2	–	-	-	3	2	-	-	
2.CO3	-	3	-	2	-	-	-	
2.CO4	-	-	3	-	-	-	-	
2.CO5	2	3	-	-	-	1	-	
2.CO6	3	-	-	-	-	-	-	
2.CO7	3	-	-	-	-	-	2	

MAPPING OF CO AND PSO FOR THE COURSE "Mechanics and Properties of Matter"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Optics, Laser and Fiber Optics
COURSE CODE: PH3CRT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
3.CO1	3	3	-	-	-	1	-	-
3.CO2	-	-	3	3	-	-	-	-
3.CO3	-	3	2	2	-	-	-	-
3.CO4	-	3	3	2	-	-	-	-
3.CO5	3	3	-	-	-	1	-	1

MAPPING OF CO AND PSO FOR THE COURSE "Optics, Laser and Fiber Optics"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Semiconductor Physics
COURSE CODE: PH4CRT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
04.CO1	3	3	2	-	-	-	-	-
04.CO2	3	3	3	3	-	-	-	-
04.CO3	3	3	3	3	-	-	-	-
04.CO4	-	2	3	3	-	-	-	1
04.CO5	3	3	-	2	-	-	-	-
04.CO6	-	-	-	3	-	-	1	2

MAPPING OF CO AND PSO FOR THE COURSE "SEMICONDUCTOR PHYSICS"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Electricity and Electrodynamics
COURSE CODE: PH5CRT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
05.CO1	3	1	-	-	-	-	-	-
05.CO2	3	-	-	-	-	-	-	-
05.CO3	3	3	1	2	-	-	-	-
05.CO4	3	3	2	1	-	-	2	-
05.CO5	3	2	-	1	-	2	-	-

MAPPING OF CO AND PSO FOR THE COURSE "Electricity and Electrodynamics"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Classical and Quantum Mechanics
COURSE CODE: PH5CRT06

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
06.CO1	3	2	-	2	-	-	-	-
06.CO2	-	3	2	2	-	-	-	-
06.CO3	3	3	-	-	-	1	-	-
06.CO4	3	3	-	2	-	-	-	-
06.CO5	-	3	-	2	-	-	-	1
06.CO6	-	2	-	2	-	-	1	-

MAPPING OF CO AND PSO FOR THE COURSE "Classical and Quantum Mechanics"

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PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Digital Electronics and Programming
COURSE CODE: PH5CRT07

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
07.CO1	3	-	-	-	-	-	-	-
07.CO2	3	3	3	-	-	-	-	-
07.CO3	3	-	3	-	-	-	-	-
07.CO4	-	-	3	2	-	-	-	-
07.CO5	-	3	-	3	3	-	-	

MAPPING OF CO AND PSO FOR THE COURSE "Digital Electronics and Programming"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Environmental Physics and Human Right
COURSE CODE: PH5CRT08

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
08.CO1	3	2	-	2	-	1	-	-
08.CO2	-	3	-	2	-	2	-	1
08.CO3	-	3	-	2	-	2	-	1
08.CO4	-	3	-	2	-	2	-	1
08.CO5	-	-	-	-	-	2	2	2
08.CO6	-	-	-	2	-	2	2	2

MAPPING OF CO AND PSO FOR THE COURSE "Environmental Physics and Human Right"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Thermal and Statistical Physics
COURSE CODE: PH6CRT09

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
9.CO1	3	-	2	-	-	-	-	-
9.CO2	3	-	2	1	-	-		-
9.CO3	3	-	-	-	-	-	-	-
9.CO4	3	-	2	-	-	-		
9.CO5			-	-	-	-	-	-

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Relativity and Spectroscopy
COURSE CODE: PH6CRT10

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
10.CO1	3	3	-	3	2	1	-	-
10.CO2	3	3	-	3		1		-
10.CO3	-	2	3	3		-	2	-
10.CO4	-	2	2	3	-	-		1
10.CO5			2	3	2			1

MAPPING OF CO AND PSO FOR THE COURSE "Relativity and Spectroscopy"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Nuclear, Particle Physics and Astrophysics
COURSE CODE: PH6CRT11

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
11.CO1	3	3	-	-	-	-	-	-
11.CO2	3	1	-	-	-	-	-	-
11.CO3	3	-	-	-	-	-	-	-
11.CO4	3	-	-	-	-	-	-	-
11.CO5	2	-	-	-	-	1	-	-

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Solid State Physics
COURSE CODE: PH6CRT12

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
12.CO1	3	2	-	-	-	-	-	-
12.CO2	-	3	3	2	-	-	-	-
12.CO3	-	2	1	2	-	-	1	1
12.CO4	3			2		2		1
12.CO5	3	2	-	1	-	-	-	1

MAPPING OF CO AND PSO FOR THE COURSE "Solid State Physics"

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PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Astronomy and Astrophysics
COURSE CODE: PH6CBT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PS08
CO1	3	2	-	-	-	-	-	-
CO2	3	3	2	-	-	-	-	-
CO3	3	-	-	-	-	-	2	-
CO4	3	3	-	1	-	-	-	-
CO5	3	-	-	-	-	-	-	1
CO6	-	-	3	-	-	-	2	-

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Computer Fundamentals
COURSE CODE: CA1VOT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
1.CO1	3	2	2	-	3	1	2	3
1.CO2	3	2	2	2	1	-	1	1
1.CO3	3	2	2	-	-	-	-	-
1.CO4	3	-	-	1	-	-	-	1
1.CO5	3	-	-	-	2	1	3	2

MAPPING OF CO AND PSO FOR THE COURSE "Computer Fundamentals"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Computer Networks & Internet Technologies
COURSE CODE: CA1VOT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
2.CO1	3	-	2	3	3	-	2	2
2.CO2	3	-	-	2	2	1	3	3
2.CO3	3	-	1	-	2	-	2	1
2.CO4	3	-	-	-	2	1	3	3
2.CO5	3	-	2	-	2	2	3	3

MAPPING OF CO AND PSO FOR THE COURSE
"Computer Networks & Internet Technologies"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Word and Data Processing Packages
COURSE CODE: CA1VOT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
3.CO1	3	-	2	1	3	-	2	3
3.CO2	3	2	3	2	3	-	2	3
3.CO3	3	1	1	-	3	-	1	2
3.CO4	2	1	-	2	-	1	2	3
3.CO5	1	1	-	3	-	1	1	3

MAPPING OF CO AND PSO FOR THE COURSE "Word and Data Processing Packages"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Programming in ANSI C
COURSE CODE: CA1VOT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
4.CO1	3	3	3	2	3	-	1	3
4.CO2	3	3	3	2	3	-	-	2
4.CO3	3	2	3	2	3	-	-	2
4.CO4	3	2	3	2	3	-	2	2
4.CO5	3	2	3	2	3	-	-	2

MAPPING OF CO AND PSO FOR THE COURSE "Programming in ANSI C"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Concepts of Object Oriented Programming
COURSE CODE: CA1VOT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
5.CO1	3	2	2	1	3	-	1	3
5.CO2	3	3	3	2	3	-	-	2
5.CO3	3	2	3	2	3	-	-	2
5.CO4	3	2	3	2	3	-	-	3
5.CO5	3	2	3	2	3	-	-	3

MAPPING OF CO AND PSO FOR THE COURSE "Concepts of Object Oriented Programming"

Alphonsa College, Pala Kerala
ISBN: 978-93-85657-41-2

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Operating System
COURSE CODE: CA1VOT06

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
6.CO1	3	1	2	2	1	1	1	3
6.CO2	3	1	-	1	-	-	-	2
6.CO3	3	2	3	2	2	-	-	2
6.CO4	3	2	3	2	3	-	-	3
6.CO5	3	2	2	2	2	-	1	2

MAPPING OF CO AND PSO FOR THE COURSE "Operating System"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Visual Basic Programming
COURSE CODE: CA1VOT07

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
7.CO1	3	1	2	2	1	-	1	3
7.CO2	3	1	-	1	-	-	-	2
7.CO3	3	2	3	2	2	-	-	2
7.CO4	3	2	3	2	3	-	-	3
7.CO5	3	2	2	2	2	-	1	2

MAPPING OF CO AND PSO FOR THE COURSE "Visual Basic Programming"

PROGRAMME: B.Sc. PHYSICS Model II
COURSE TITLE: Web Development and PHP Programming
COURSE CODE: CA1VOT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
8.CO1	3	2	2	1	3	-	1	3
8.CO2	3	3	3	2	3	-	-	2
8.CO3	3	2	3	2	3	-	-	2
8.CO4	3	2	3	2	3	-	-	3
8.CO5	3	2	3	2	3	-	-	3

MAPPING OF CO AND PSO FOR THE COURSE "Web Development and PHP Programming"

ASSESSMENT TOOLS

1. CLASS TEST (INTERNAL EXAM QUESTION PAPER ATTACHED)

2. SEMESTER EXAM (UNIVERSITY EXAM QUESTION PAPER ATTACHED)

3. LABORATORY TEST (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
THEORY					
EXPERIMENT SETTING					
DATA ANALYSIS					
RESULT AND DISCUSSION					

4. PROJECT (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
PUNCTUALITY					
EXPERIMENTATION/ DATA COLLECTION					
KNOWLEDGE					
REPORT					

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5. FIELD/INDUSTRIAL/LAB VISIT (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
PLANNING					
VISIT					
REPORT					
INTERACTION					

6. SEMINAR (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
CONTENT					
PRESENTATION					
USE OF TECHNOLOGY					
COMMUNICATION					
INTERACTION AND DISCUSSION					

7. ASSIGNMENT (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
RELEVANCE OF TOPIC					
CONTENT					
PRESENTATION					
METHODOLOGY					
TIMELY SUBMISSION					

8. VIVA

Name of the student:

Programme:

Course:

Academic year:

Register Number:

	Excellent	Very Good	Good	Average	Below Average
UNDERSTANDING					
EXPLANATION WITH RELEVENT THEORY					
CRITICAL THINKING					
CLARITY OF PRESENTATION					
INTERACTION AND DISCUSSION					

9. REFLECTIVE JOURNAL (SAMPLE FORMAT)

Name of the student:

Programme:

Course:

Academic year:

Register Number:

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Sl No	Date	Content Outline	Learning Stratergy	Reflections	Remarks of the Teacher
1.	26/5/2023	Field Visit	Demonstration, Lecture	Understand	Good

END SEMESTER EXAM QUESTION PAPER (SAMPLE

B.Sc Degree CBCS Regular Examinations March 2023

Fourth Semester

Core Course - PH4CRT04 Semiconductor Physics

Total Time: 3hrs Total Marks: 60

Part A

Answer any ten questions. Each carries1 mark

1. How the variation in temperature affect the barrier voltage? PSO1/CO2 (Explain)
2. What is zener breakdown? PSO1/CO1 (Explain)
3. What is the benefit of a filter circuit PSO3/CO3 (Apply)
4. What is clipper? PSO1/CO1 (Understand)
5. What is the difference between a positive clamping and a negative clamping circuit? PSO3/CO3 (Differentiate)
6. Explain why an ordinary junction transistor is called bipolar PSO1/CO1 (Remember)
7. What are the factors affecting bias variations PSO2/CO2 (Explain)
8. What do you mean by single stage transistor amplifier PSO1/CO1 (Remember)
9. Write down the expression for power gain in bel and decibel PSO1/CO1 (Remember)
10. Write the advantages and disadvantages of Colpitt's oscillator PSO3/CO3 (Evaluate)

11. Define Channel of a FET PSO1/CO1 (Explain)

12. Explain the effects of an AM, whose percentage modulation is greater than 100% PSO4/CO5 (Evaluate)

Part B

Answer any six questions. Each carries 5 marks.

13. A crystal diode having internal resistance r=30Ω is used for half wave rectification. If the applied voltage v= 24 Sinωt and load resistance R_L = 400 Ω, find (i) I_dc, I_m, I_rms (ii) dc power output and ac power input (iii) dc output voltage (iv)efficiency of rectification. PSO2/CO2 (Apply)

14. A 10V zener diode is used to regulate the voltage across a variable load resistor. The input voltage varies between 12 to 18 V. The load current I_L varies between 5 to 100 mA. The minimum zener current is 20mA. Find (i) the maximum value of series resistance R and (ii) the maximum power dissipated by the zener diode using this value of series resistance. PSO3/CO4 (Apply)

15. Define **α**, □, ***γ*** of a transistor. Derive the relation between them. PSO1/CO1 (Remember)

16. A germanium transistor had I_CBO = 10μ A, **α**= 0.98 and I_C = 1mA . Determine the emitter current and □ of the transistor. PSO2/CO2 (Solve)

17. In a negative feedback amplifier A= 100, □= 0.04 and V_i =50 V. Find (i) gain with feedback (ii) output voltage (iii) feedback factor and (iv) feedback voltage. PSO4/CO2 (Solve)

18. What are the characteristics of an ideal op-amp. PSO1/CO1 (Remember)

19. Draw and explain the V-I characteristics of a P-N junction diode. PSO1/CO1 (Understand)

20. Find the voltage gain and output voltage of a non-inverting amplifier with R_f = 68KΩ , R_1 = 1KΩ and input voltage =1V. Given supply voltage = 15V Comment on the result . PSO4/CO3 (Solve, Evaluate)

21. A 1MHz carrier is modulated with 900Hz audio signals. What are the frequencies of first pair of sidebands? PSO2/CO5 (Apply)

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Part C
Answer any two questions. Each carries 10 marks

22. What are diode parameters? Briefly explain how to test a diode? What is an ideal diode? PSO1/CO1 (Remember)

23. Draw the circuit diagram of CE configuration of a transistor. Draw and explain the input and output characteristics. PSO1/CO3 (Understand)

24. Draw and explain RC phase shift oscillator. PSO3/CO3 (Understand)

25. Explain amplitude modulation. Derive an expression for the instantaneous amplitude of an amplitude modulated wave. Explain the side band frequencies and band width. PSO1/CO5 (Understand)

CLASS TEST QUESTIOJN PAPER (Sample)

ALPHONSA COLLEGE, PALA

INTERNAL EXAMINATION DECEMBER 2022

C.B.C.S Core Course Physics, Semester I

PH1CRT01 – Methodology and Perspectives of Physics

Time:1 hour Max. Marks: 20

PART A
Answer any 5 (Marks 2)

1. Explain BCD with an example. (CO4-PSO2) (K-Explain)
2. Identify the major contribution of C V Raman to diffraction of light. (CO1-PSO1) (K- identify)
3. Write a short note on radar. (CO2-PSO4) (k-recite)
4. Convert the hexadecimal (2A5) to binary. (CO4-PSO2)(Apply- solve)
5. Explain the working of GPS. (CO3-PSO2) (K-Explain)
6. Distinguish Gradient, divergence and curl. (CO5- PSO4)(Understand-compare)
7. Point out the characteristics of hexadecimal number systems. (CO4-PSO2) (Apply- sketch)

PART B
Answer any 2 (Marks 5)

8. What is 2's complement subtraction? Subtract
(a) (1010) from (1111)

(b) (1100) from (1001) using 2's complement method. (C04-PSO5) (Apply- Solve)

9. Explain the term 'Least Count of the instrument' with the help of a screw gauge. Which are the different instruments used for the estimation of all small distances? Illustrate. (CO3-PSO2,PSO7)(Analyze- Illustrate)

10. Discuss the contributions of Isaac Newton in starting the new era of Physics. (CO1-PSO6) (Evaluate- Reflect)

QUIZ (Sample)

Alphonsa College, Pala Department of Physics

PH1CRT01

Quiz-1 - Measuring Instruments and Measurements

Time : 10 minutes Points: 10

1. A voltmeter is a galvanometer with …. PSO3/CO2
2. The least count of a screw gauge is… PSO1/CO3
3. Ammeter used for measuring current is connected….. PSO3/CO2
4. The least count of a Vernier caliper having one main scale division as x cm and number of divisions on vernier scale as n is… PSO2/CO3
5. An ideal ammeter has… resistance PSO3/CO2
6. The zero reading on head scale of a screw gauge is 5 divisions below the pitch scale mark. The zero error is… PSO2/CO3
7. A galvanometer is converted to ammeter by connecting…. PSO3/CO2
8. What is the percentage of uncertainty in the volume of a ball of radius (0.84 ± 0.04)m? PSO4/CO3
9. The refractive index of glass was observed to be 1.45, 1.56, 1.54, 1.44, 1.54 and 1.53 . The mean absolute error in the experiment is….. PSO4/CO3
10. Round 24.8514 to three significant figures. PSO4/CO3

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B.Sc. Zoology - Model 1
PROGRAM SPECIFIC OUTCOMES (PSOs)

Programme Specific Outcomes (PSO)	
PSO1	Scientifically categorize the common animals in the locality and examine their roles in the environment.
PSO2	Develop skills to culture the economically beneficial animals and thus open opportunity for self-employment.
PSO3	Build a strong foundation for research work in a systematic manner.
PSO4	Develops a healthy lifestyle by understanding various physiological processes in human being.
PSO5	Evaluate the potential risk factors to human health.
PSO6	Interpret various genetic abnormalities and their reasons.
PSO7	Find Solutions to environmental issues
PSO8	Value the importance of normal functioning of cells/ immune system and reproductive physiology
PSO9	Understand various genetic tools and techniques in Biotechnology for the betterment of human life
PSO10	Understand the significance of exercise/balanced diet for attaining good health
PSO11	Develop respect for nature.
PSO12	Illustrate the morphology/ anatomy/ ethology of different animals & their evolutionary importance/ zoogeography
PSO13	Outline ethical issues and laws/polices related to Research and Environment
PSO14	Build basic scientific knowledge about microorganisms and methods of microbiology

COURSE OUTCOMES

Course Code	Course Title	PSO	Course Outcomes (CO)	
Semester 1				
ZY1CRT01	General Perspectives In Science &Protistan Diversity	PSO3,PSO11	CO1.1	Explain the basic philosophy of science its concepts and scope.
		PSO1, PSO5, PSO14	CO1.2	Identify the different protistan forms
		PSO1,PSO5,PSO14	CO1.3	Distinguish between pathogenic and non pathogenic protistans.
		PSO1,PSO5,PSO7, PSO12	CO1.4	Explain the life cycle of protozoa.
Semester 2				
		PSO1,PSO3,PSO5	CO2.1	Categorize different levels of biological diversity through the systematic classification of invertebrate fauna.
		PSO1,PSO3,PSO5, PSO7	CO2.2	Organize animals according to their taxa.
		PSO2,PSO5	CO2.3	Assess the economic importance of various invertebrate animals
		PSO7,PSO11	CO2.4	Motivate students to protect all life forms
Semester 3				
ZY3CRT03	Animal Diversity – Chordata	PSO1, PSO3,PSO12	CO3.1	Explain the diversity of chordates
		and their systematic position	CO2.2	Organize animals according to their taxa.
		PSO1, PSO3,PSO12	CO3.2	Categorize the chordates into different taxonomic units
		PSO12,PSO3,PSO6	CO3.3	Compare the anatomy of different vertebrate groups
		PSO1,PSO3,PSO12,	CO3.4	Evaluate the phylogenetic relationships between different classes of chordates

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Semester 4				
ZY4CRT04	Research Methodology, Biophysics and Biostatistics	PSO3,PSO11	CO4.1	Explain the basic scientific method in research process.
		PSO3,PSO13	CO4.2	Take part in research communication and scientific documentation.
		PSO13,PSO3	CO4.3	Examine the laws and ethical values in biology.
		PSO3, PSO2,PSO13	CO4.4	Apply the basic techniques of animal rearing, collection and preservation for research purpose.
Semester 5				
ZY5CRT05	Environ-mental Biology and Human rights	PSO13,PSO7,PSO11	CO5.1	Identify the natural resources and their conservation
		PSO7,PSO5	CO5.2	Evaluate the impact of toxic substances on human health and remedial measures
		PSO13,PSO7,PSO11	CO5.3	Categorize different environmental problems in the locality
		PSO13,PSO3	CO5.4	Identify the human rights in our country.
ZY5CRT06	Cell Biology and Genetics	PSO1, PSO8	CO5.5	Identify different cell organelles, their structure and role in living organisms.
		PSO8, PSO4	CO5.6	Analyze the central role of genes and their inheritance pattern.
		PSO6, PSO9	CO5.7	Identify Chromosomal abnormalities and its remedial measures
ZY5CRT07	Evolution, Ethology & Zoo-geography	PSO12	CO5.8	Analyses the evolutionary concepts and theories.
		PSO12	CO5.9	Compares the distribution patterns of animals in different parts of the earth
		PSO12, PSO3	CO5.10	Identifies the different behavioural patterns of animals in the environment and their role in adaptation.

ZY5CRT08	Human Physiology, Biochemistry and Endocrinology	PSO4	CO5.11	Define the basic principles of animal metabolism
		PSO4, PSO8	CO5.12	Explaining various aspects of physiological activities of animals with special reference to humans.
		PSO4, PSO3	CO5.13	Compare the hormonal regulation of physiological processes in invertebrates and vertebrates.
		PSO10, PSO5, PSO4	CO5.14	Explain the role of different categories of nutrients in normal functioning of body.
		PSO4, PSO5,PSO3	CO5.15	Demonstrate the emergence of disorders in the body arising from disruption of physiological processes
Semester 6				
ZY6CRT09	Developmental Biology	PSO3, PSO11	CO6.1	Understand experimental methods and designs that can be used for future studies and research
		PSO8	CO6.2	Identify the concepts and process in developmental biology
		PSO8	CO6.3	Compare the development of different organisms
ZY6CRT10	Microbiology and Immunology	PSO14, PSO5	CO6.4	Experiment with sterilization, microbial culturing and preservation techniques
		PSO14, PSO5, PSO3	CO6.5	Develop methods for prevention and treatment of microbial diseases
		PSO8, PSO14	CO6.6	Discuss about immune response to various infectious diseases.

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ZY6CRT11	Bio-technology, Bio-informatics and Molecular Biology	PSO9	CO6.7	Develop scientific skill in students using biotechnological and bioinformatics tools
		PSO3, PSO13	CO6.8	Build a taste for biotechnological research in students
		PSO9,PSO7	CO6.9	Make use of potential of Bioinformatics and Molecular Biology for shaping the future of society.
ZY6CRT12	Occupational Zoology (Apiculture, Vermiculture, Quail Farming & Aquaculture)	PSO2,PSO1, PSO11	CO6.10	Perceive the importance of integrated farming with self-employment capabilities
		PSO2	CO6.11	Apply the scientific knowledge of fish farming in a profitable manner
		PSO2, PSO3	CO6.12	Design new cottage industries
ZY6CBT04	Public Health and Nutrition	PSO5, PSO3	CO6.13	Examine the different dimensions of health
		PSO10	CO6.14	Evaluate the role of balanced diet in maintaining health
		PSO10	CO6.15	Apply yoga and meditation in their daily life
		PSO10, PSO4	CO6.16	Discuss the importance of exercise for maintaining healthy body

B Sc Botany (Complementary Zoology)				
Course Code	Course Title	PSO	Course Outcomes (CO)	
Semester 1				
		PSO1,PSO3,PSO5	COS1.1	Categorize different levels of biological diversity through the systematic classification of invertebrate fauna.
		PSO1,PSO3,PSO5, PSO7	COS1.2	Organize animals according to their taxa.
		PSO2,PSO5	COS1.3	Assess the economic importance of various invertebrate animals
		PSO11,PSO7,	COS1.4	Motivate students to protect all life forms

Semester 2				
ZY2CMT02	Chordate Diversity	PSO1, PSO3,PSO12	COS2.1	Explain the diversity of chordates and their systematic position
		PSO1, PSO3,PSO12	COS2.2	Categorize the chordates into different taxonomic units
		PSO12,PSO3,PSO6	COS2.3	Compare the anatomy of different vertebrate groups
		PSO12,PSO1,PSO3	COS2.4	Evaluate the phylogenetic relationships between different classes of chordates
Semester 3				
ZY3CMT03	Physiology and Immunology	PSO4	COS 3.1	Correlates between structure and function of organisms
		PSO4, PSO8	COS.3.2	Classifies the health related problems, their origin and treatment.
		PSO4, PSO3	COS 3.3	Explains the role of immune system in our body
		PSO10, PSO5, PSO4	COS 3.4	Explain the role of different categories of nutrients in normal functioning of body.
		PSO4, PSO5,PSO3	COS 3.5	Demonstrate the emergence of disorders in the body arising from disruption of physiological processes
Semester 4				
ZY4CMTO4	APPLIED ZOOLOGY (Apiculture, Vermiculture, Aquaculture & Sericulture)	PSO2,PSO1, PSO11	COS 4.1	Relate knowledge and skills in applied branches of zoology.
		PSO2	COS 4.2	Demonstrate the technology for utilising ecofriendly organisms around them for beneficial purpose.
		PSO2, PSO3	COS 4.3	Develop self-employment opportunities with scientific knowledge. to perform profitably & confidently.

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PSO-CO MAPPING
PROGRAMME: B.Sc ZOOLOGY
SEMESTER I
COURSE TITLE: General Perspectives in Science and Protistian Diversity
COURSE CODE: ZY1CRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO1.1	-	-	3	-	-	-	-	-	-	-	2	-	-	-
CO1.2	2	-	-	-	2	-	-	-	-	-	-	-	-	3
CO1.3	3	-	-	-	2	-	-	-	-	-	-	-	-	2
CO1.4	2	-	-	-	1	-	1	-	-	-	-	3	-	-

SEMESTER II
COURSE TITLE: Animal Diversity - Non Chordata
COURSE CODE: ZY2CRT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO2.1	3	-	2	-	2	-	-	-	3	-	-	-	-	-
CO2.2	2	-	3	-	2	-	2	-	-	-	-	-	-	-
CO2.3	-	2	-	-	3	-	-	-	-	-	-	-	-	-
CO2.4	-	-	-	-	-	-	2	-	-	-	2	-	-	-

SEMESTER III
COURSE TITLE: Animal Diversity - Chordata
COURSE CODE: ZY3CRT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO3.1	2		2									3		
CO3.2	3		3									3		
CO3.3			2			1						3		
CO3.4	2		3									1		

SEMESTER IV
COURSE TITLE: Research Methodology, Bio Physics & Bio Statistics
COURSE CODE: ZY4CRT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO4.1		2								1			-	-
CO4.2		3										3	-	3
CO4.3		3										3	-	2
CO4.4	2	3										3	-	-

SEMESTER V

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO5.1							1				1		3	
CO5.2					3		3							
CO5.3							2				3		3	
CO5.4			2										3	
CO5.5	2							1						
CO5.6				3				2						
CO5.7						1			3					
CO5.8												3		
CO5.9												3		
CO5.10			2									3		
CO5.11				1										
CO5.12				1				1						
CO5.13			3	2										
CO5.14				1	2					3				
CO5.15			2	1	1									

SEMESTER VI

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
CO6.1			2								1			
CO6.2								2						
CO6.3								2						
CO6.4					2									3
CO6.5			3		3									3
CO6.6								3						3
CO6.7									3					
CO6.8			3										3	
CO6.9							2		3					
CO6.10	3	2									2			
CO6.11		2												
CO6.12		3	3											
CO6.13			3		2									
CO6.14										3				
CO6.15										3				
CO6.16				3						3				

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PROGRAMME: B.Sc. BOTANY (Complementary Zoology)
SEMESTER I
COURSE TITLE: Non Chordate Diversity
COURSE CODE: ZY1CMT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
COS1.1	3	-	2	-	2	-	-	-	3	-	-	-	-	-
COS 1.2	2	-	3	-	2	-	2	-	-	-	-	-	-	-
COS 1.3	-	2	-	-	3	-	-	-	-	-	-	-	-	-
COS 1.4	-	-	-	-	-	-	2	-	-	-	2	-	-	-

SEMESTER II
COURSE TITLE: Chordate Diversity
COURSE CODE: ZY2CMT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
COS 2.1	2		2									3		-
COS 2.2	3		3									3		-
COS 2.3			2			1						3		-
COS 2.4	2		3									1		-

SEMESTER III
COURSE TITLE: Physiology and Immunology
COURSE CODE: ZY3CMT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
COS 3.1				1										
COS.3.2				1				1						
COS 3.3			3	2										
COS 3.4				1	2					3				
COS 3.5			2	1	1									

SEMESTER IV
COURSE TITLE: Applied Zoology
COURSE CODE: ZY4CMT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PS09	PS10	PS11	PS12	PS13	PS14
COS 4.1	3	2									2			
COS 4.2		2												
COS 4.3		3	3											

ASSESSMENT TOOLS IN B SC ZOOLOGY COURSE

1. Assignment

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Content					
Systematic Presentation					
Relevance					
Reference					
Methodology & timely Submission					
Punctuality					

Max Mark - 30

Standard Level -

2. Seminar

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Content					
Presentation					
Technology					
Communication					
Interaction					

Max Mark - 25

Standard Level -

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3. Project

Name of student:
Programme:
Course:
Academic year:
Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Title					
Introduction					
Aim and objectives					
Review of literature					
Observation					
Result and Discussion					
Reference					

Max Mark - 35
Standard Level -

4. Practical

Name of student:
Programme:
Course:
Academic year:
Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Punctuality and Regularity in Practical classes					
Lab Involvement & Skill					
Promptness & Neatness in submission of Results & Record sheets					
Lab Test/Viva					

Max Mark - 20
Standard Level -

5. Field Visit

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Planning for visit					
Visiting the place					
Reporting					
Interaction					

Max Mark - 20

Standard Level -

6. Viva

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Knowledge					
Style of presentation					

Max Mark -

Standard Level -

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1. CLASS TEST (SAMPLE)

ALPHONSA COLLEGE PALA

INTERNAL EXAMINATION – November 2022

SEMESTER V B Sc ZOOLOGY

PHYSIOLOGY, BIOCHEMISTRY AND ENDOCRINOLOGY

Time: 1 Hr Marks: 20

PART A
(Answer any five questions. Each carries one mark)

1. What is inspiration? (Remember) (CO 5.12) (PSO 4)
2. Define homeostasis. (Remember) (CO5.13)(PSO4)
3. Summarise the important factors affecting oxyhaemoglobin curve(Understanding) (CO5.12) (PSO 8)
4. Classify different groups of nutrients (analyse) (CO5.11) (PSO 4)
5. Compare transamination and deamination (analyse) (CO5.11) (PSO 4)
6. List the major fat soluble vitamins.(Remember) (CO5.11) (PSO4) (5x1=5)

PART B
(Answer any one question. Each carries five marks)

7. Evaluate the thermal adaptations exhibited by Polar and desert animals. (Evaluate) (CO5.11) (PSO 3)
8. Discuss the role of ATP in muscle contraction. (Create)(CO5.12) (PSO8) (5x1=5)

PART C
(Answer any one Question)

9. Compile the extrinsic and intrinsic pathway of blood clotting (Create)(CO5.12) (PSO8)
10. Elaborate the mechanism of hormone action. (Create). (CO 5.13) (PSO4) 10x1=10

2. END SEMESTER EXAMINATION (SAMPLE)

BSc DEGREE (CBCS) EXAMINATION

Fifth Semester

Core Course - ZY5CRT08 - HUMAN PHYSIOLOGY, BIOCHEMISTRY & ENDOCRINOLOGY

B.Sc Biological Techniques and Specimen Preparation Model III ,B.Sc Zoology and Industrial Microbiology Model III Double Main ,B.Sc Zoology Model I ,B.Sc Zoology Model II Aquaculture ,B.Sc Zoology Model II Medical Microbiology, 2017 Admission Onwards

Time: 3 Hours Max. Marks : 60

Part A

Answer any ten questions. Each question carries 1 mark.

1. Define RDA. (CO5.14)(PSO10)
2. Define peristalsis. (CO5.12)(PSO 4)
3. What is marasmus? (CO5.15)(PSO4)
4. Explain the components of haemoglobin(CO5.14)(PSO 10)
5. Examine the role of ADH in the development of Diabetes insipidus(CO5.13) (PSO4)
6. List any two reasons for chronic renal failure(CO5.12)(PSO4)
7. Interpret Cori cycle(CO5.11)(PSO4)
8. Summarize muscle fatigue(CO5.12)(PSO4)
9. Classify Carbohydrates(CO5.14)(PSO10)
10. Categorize molecules absorbed through tubular reabsorption (CO5.12)(PSO4)
11. Mention two types of deamination (CO5.11)(PSO4)
12. Outline the role of adrenaline in preparing the body for emergency.(CO5.13) (PSO4) (10×1=10)

Part B

Answer any six questions. Each question carries 5 marks.

13. Compile the different modes of transport of carbon dioxide(CO5.12)(PSO4)
14. Conclude different types of hypoxia. (CO5.15)(PSO4)

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15. Elaborate blood Coagulation pathways(CO5.12)(PSO4)
16. Discuss the Histology of Bowman's capsule. (CO5.12)(PSO4)
17. Interpret the role of counter current mechanism in concentrating urine (CO5.12) (PSO4)
18. Illustrate the organisation of myofibrils.(CO5.12)(PSO4)
19. Infer the biological importance of proteins. (CO5.14)(PSO10)
20. List the functions of B complex vitamins. (CO5.14)(PSO10)
21. Appraise the significance of ATP in a biological system (CO5.11)(PSO4)

(6 x 5=30)

Part C

Answer any two questions. Each question carries 10 marks.

22. Deduct the causes and symptoms of jaundice. (CO5.15)(PSO4)
23. Categorize types of synapses. Describe the mechanism of synaptic transmission across different synapses. (CO5.12)(PSO4)
24. Discuss different kinds of neuronal disorders. (CO5.15)(PSO4)
25. Interpret the metabolism of lipids (CO5.11)(PSO4) (2×10=20)

Hindi - Additional Language

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1. Develop Hindi reading and It provides Students gain basic knowledge in Hindi Language and literature and understand various aspects of Hindi Literature.

PSO2 Gain specific knowledge on Grammar and translationTo make an attempt in different area and theory such as grammatical vocabulary.

PSO3 Students can develop Social Awareness: proud on Cultural Heritage of India, feelings of Patriotism,Gender equality,environment conservation.

PSO4 To Understand Social grievances:awareness about corruptions and exploitations the human struggles and thus enhance legal and moral values.

SlNo.	Name of Paper	PSO	CO
1	**Semester I** Prose and One Act Plays	PSO1. Develop Hindi reading and It provides Students gain basic knowledge in Hindi Language and literature and understand various aspects of Hindi Literature PSO3. Students can develop Social Awareness : proud on Cultural Heritage of India feelings of Patriotism,Gender equality,environment conservation .	CO 1.1. Knowledge on Small Dramasand Proses CO 1.2. Students get Environmental Awareness and Aesthetic feeling towards nature CO 1.3. Respect towards Nation CO 1.4 Wish to develop a self reliant Strong Personality
2	**Semester II** Short Stories and Novel	PSO1. Develop Hindi reading and It provides Students gain basic knowledge in Hindi Language and literature and understand various aspects of Hindi Literature. PSO3 Students can develop Social Awareness : proud on Cultural Heritage of India feelings of Patriotism,Gender equality,environment conservation.	CO2.1 Knowledge on Short Stories and Novels CO2.2 Get awareness on IndianTraditional Families, and inculcate moral and legal values within themselves CO2.3 Accure strength to oppose Corruptions and superstitions

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3	**Semester III** Poetry Grammar and Translation	PSO2 Gain specific knowledge on Grammar and translationTo make an attempt in different area and theory such as grammatical vocabulary PSO4 To Understand Social grievances:awareness about corruptions and exploitations the human struggles and thus enhance legal and moral values	CO3. 1 Attain Human Values, increase Patriotic feelings of the students CO3 2 Understand struggles and exploitation faced by the Human especially women adivasis etc. CO3.3 Attain grammatical knowledge CO3.4 Study to Translate
4	**Semester IV** Drama and Long Poem	PSO3 Students can develop Social Awareness: proud on Cultural Heritage of India feelings of Patriotism, Gender equality,environment conservation. PSO4 To Understand Social grievances:awareness about corruptions and exploitations the human struggles and thus enhance legal and moral values	CO4.1 Develop Special Interest inIndian Epic l Ancient History and society CO4.2 to get awareness on moral and human values CO4.3 get awareness about different life styles CO4 .4 get awareness aboutTerrorism and Forcible migrations like social evils prevailed in the society

PSO-CO Mapping

	PSO1	PSO2	PSO3	PSO4
CO 1	3	-	3	-
CO2	2	-	1	-
CO3	-	3	-	3
CO4	-	-	3	3

ASSESSMENT TOOLS

1. CLASS TEST (SAMPLE)

ALPHONSA COLLEGE PALA

First Internal Examination, December2022
First Semester - Additional Language Hindi

PROSE AND ONE ACT PLAYS

Time 1 hour. Total Marks:20

कन्हिीं दो प्रश्नों का उत्तर लिखिए। (2x2=4)

1. हमिाच्छादति उत्तुंग शखिर और धुली हरयिाली' कसि वधिा की रचना है ?इसका लेखक कौनहै?[U],PSO1.1. ,Co1.1
2. डां राम कुमार वर्मा का जन्म कहां हुआ? कसि साल में हुआ?[Rem.]PSO1.1CO1.1
3. उषा बाला के उपन्यासों का नाम लखिए।[Rem]Pso 1 ,Co 1.1

कसिी एक प्रश्न का उत्तर लिखिए (1x5=5)

4. अल्लादयिा ने अपने पति का ख्वाहशि कसि प्रकार पूरा कयिा?[Anal.] [PSO1CO1:1]
5. कीरत बारी कौन है? कुँअर की रक्षा के लिए कीरत बारी ने पत्ना को कैसे मदद कयिा? [Anal.] PSO1CO1:1]

कसिी एक प्रश्न का उत्तर लिखिए (1x11=11)

6. हमिाच्छादति उत्तुंग शखिर और धुली हरयिाली'शीर्षक नबिंध का सारांश अपने शब्दों में लखिए।[Eval.][PSO3,CO1:2]

अथवा

7. दीपदान'राष्ट्र प्रेम की भावना जगाने वाला एकांकी है स्पष्ट कीजए। [Create]PSO3CO1:3]

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2. END SEMESTER EXAMINATION (SAMPLE)

ALPHONSA COLLEGE PALA

B.A/B.Sc DEGREE EXAMINATION MODEL I

ADDITIONAL LANGUAGE - HINDI

SECOND SEMESTER, SHORT STORIES AND NOVEL
(Common for ModelI BA/BScProgramme)

2017 ADMISSION ONWARDS

Time: 3Hrs Max.Marks: 80

Part A

कन्हिीं दस प्रश्नों के उत्तर लिखिए।

1. प्रमचंद द्वारा संपादति कन्हिीं दो पत्रकिाओं का नाम लखिए(Rem) [PSO1, CO2 1]
2. ज्ञानरंजन का जन्म कहाँ हुआ? और कब हुआ?(Un) [PSO1, CO2 1]
3. स्वयं प्रकाश के कन्हिीं दो उपन्यासो का नाम लखिए?(Un) [PSO1, CO2 1]
4. फल्मि देख कर बाहर आने पर माया ने क्या कयिा?(Un) [PSO3,CO2 2]
5. मुन्ना कौन थे ?वे अब कर रहा ?(Rem) [PSO1,CO2 1]
6. मां रसोई में रहती है कहानी में कहानीकार ने कसि के प्रतअिपनी संवेदनाएं प्रकट की है?(Rem) [PSO3,CO2 2]
7 चंद्रकांता के दो उपन्यासों के नाम लखिए।(Un)[PSO1,CO2 1]
8 अंतमि साक्ष्य में घरवालों के इंतजार में बेठी बीजी का चत्रि कसि तरह अंकति कयिा गया है?(Cr) [[PSO1,CO2 1]
9 मास्टर जी का मीनू को छोड़कर चले जाने का क्या कारण था(Cr) [PSO1,CO2 1]
10. बीजी कौन थी ? बाऊजी उन्हें कसि नाम से पुकारते थे?(Un) [PSO1,CO2 1]
11. बाऊजी के लड़कों के नाम लखिए ? उनके भवष्यि के प्रतबिाऊजी को काया-क्या अभलिाषा
12 वकिी ने घर छोड़ने का नर्णिय क्यों लयिा?(Rem) [PSO1,CO2 1] (10x2=20)

Part B

कनि्ही छ: प्रश्नों के उत्तर लखिए

13 ईद का दनि हामदि अपने दोस्तों के सामने खसियिा गया क्यों?(Anal) [PSO1,CO2 1]

14 अमरूद के पेड़ को काटने की अपेक्षा लेखक को अधकि चुनौती क्या लगी (Anal) [PSO3,CO1 2]

15. मामासोन सबसे पहले अपने शष्यिों को क्या दखिाते थे(Anal) [PSO3,CO2 2]

16. बाज़ार में रामधन' कहानी में चत्रिति बालोद गाँव की पुराणी हालत कैसी ? अब उसमें क्या बदलाव आया?(Appl) [PSO3,CO2:2]

17. जब बेटे ने माँ से आराम करने का अनुरोध कयिा तो माँ की प्रतक्रियिा क्या थ (Appl) [PSO4,CO3:2]

18. एक उदास घर में परचिति अजनबयिों के बीच मीना मौसी अपना और प्यार बाँटने आई थी लेखकिा ने उपन्यास में ऐसा क्यो लखिा है? (Crea) [PSO4,CO3:2]

19. नीला सहि की माँ के साथ वकिी का परचिय कैसे हुआ? (Appl) [PSO1,CO2:1]

20. काटना, जुड़ना, जख्मी होना सभी अनविार्य है जीने के लिए पड़ति उपन्यास के संदर्भ में इस कथन की आलोचना कीजिए? (Crea) [PSO4,CO3:2]

21 स्त्री को केवल भोग्या के रूप में देखने वाली मानसकिता का प्रतरिूप है जगन अपने वचिार लखिए।(Appl)[PSO4,CO3:2] (6x5=30)

Part C

कनि्हीं दो प्रश्नों के उत्तर लखिए।

22. ईदगाह बाल मनोवज्ञिान पर आधारति कहानी है। समर्थन कीजिए। (Anal) [PSO1,CO2:1]

23. ' अमरूद का पेड़' कहानी का सारांश लखिए। (Anal) [PSO3,CO1:2]

24. "परविार ऐसा एक हस्सिा है जसिसे व्यक्ति का जीवन अधूरा रहता है"इस कथन की आलोचना कीजिए।(Creat) [PSO4,CO3:2] (2x15=30)

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3. Assignment

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3	Average -2	Below Average -1
Content	5				
Systematic Presentation	5				
Relevance	5				
Reference		4			
Methofology	5				
Timely Submission and Punctuality	5				

Max Mark - 30

Standard Level -

4. Test Paper - 1

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3
Content			
Systematic Presentation			
Relevance			
Reference			
Methofology			
Timely Submission and Punctuality			

5. Test Paper - 2

Name of student:

Programme:

Course:

Academic year:

Register Number:

	Excellent - 5	Very Good -4	Good -3
Content			
Systematic Presentation			
Relevance			
Reference			
Methofology			
Timely Submission and Punctuality			

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B.Sc. Clinical Nutrition and Dietetics

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Impart knowledge and develop capacities of students in the area of Clinical Nutrition
PSO2	Develop students to become health care professionals for services in various fields of clinical nutrition and related areas such as hospitals, academics, research, industry, community service
PSO3	Enable them to pursue higher education and research in Clinical Nutrition and Food Science
PSO4	Develop skills in dietetics practice based on evidence based principles and current information
PSO5	Enhance the skills of planning, management and evaluation of food service in clinical setup
PSO6	Enhance the competencies of the students in diet counseling for the public
PSO7	Analyse the various environmental issues faced by the professionals
PSO8	Utilize advanced principles of health literacy including critical thinking skills, literature searches, data collection and interpretation necessary for the implementation of food and nutrition services in professional settings
PSO9	Practice the art of nutrition care in collaboration with other health care providers in inter-disciplinary settings within the bounds of ethical, legal and professional practice standards
PSO10	Create self-reliant and highly responsible women who can sustain the values and morals and can contribute to the health of the family, society and nation

COURSE OUTCOMES

CORE COURSES

Semester: I

Course Code	Course Title			Course Outcome
CN1CRT02	Basic Dietetics	PSO1 PSO2 PSO3 PSO6	CO1	Understand the relation between nutrition and health.
		PSO6 PSO9 PSO10	CO2	Acquire knowledge about the main nutrients and its functions in the body
		PSO1 PSO4	CO3	Understand the dietary requirement of various macronutrients.
		PSO1 PSO2 PSO3 PSO9 PSO10	CO4	Application of principles of nutrition in day to day life
CN1CRT02	Basic Dietetics	PSO1 PSO2 PSO3 PSO5	CO1	Impart basic knowledge in the field of dietetics.
		PSO1 PSO2 PSO3 PSO5 PSO6	CO2	Understand the various dietary modifications in different disease conditions
		PSO2 PSO3 PSO5 PSO9 PSO10	CO3	Capacity development and aptitude for taking up dietetics as a profession.
		PSO4 PSO5 PSO10	CO4	Acquire the basic knowledge for modifications of normal diet for therapeutic purposes

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CN1CRT03	Family Meal Management I	PSO5 PSO6 PSO9	CO1	Familiarize food groups, food guide and RDA and principles of meal planning
		PSO4 PSO6 PSO8	CO2	Acquire knowledge on planning meals for different age groups.
		PSO1 PSO10	CO3	Gain knowledge on various stages of growth and development
		PSO10 PSO1 PSO8 PSO9	CO4	Application of meal planning for disease prevention and wellness of the family

Semester: II

CN2CRTO4	Advanced Nutrition	PSO1	CO1	Acquire knowledge about micronutrients and its functions in the body
		PSO1	CO2	Identify the dietary sources, intake levels, physiological role and requirements of micro nutrients
		PSO1 PSO4 PSO5 PSO6	CO3	Apply the principles of nutrition for a healthy balanced diet
		PSO1 PSO2 PSO10	CO4	Analyse the global issues related to food and nutrition
CN2CRT05	Clinical Nutrition	PSO1	CO1	Study the aetiology, symptoms and medical nutrition therapy in various diseases
		PSO1 PSO4 PSO6	CO2	Acquire the skills and techniques involved in the planning and preparation of diet for various diseases
		PSO1 PSO2 PSO8	CO3	Develop the capacity and attitude for taking dietetics as a profession
		PSO10	CO4	Application of diet planning for the holistic development of the family

CN2CRT06	Family Meal Management II	PSO4 PSO5	CO1	Understand the various developmental changes in the life cycle
		PSO5	CO2	Acquire knowledge on nutrient needs and food requirements in different age groups
		PSO4 PSO5	CO3	Understand the different nutritional problems and its preventive measures
		PSO10	CO4	Develop the capacity of young women in moulding a healthy generation

Semester: III

CN3CRTO7	Therapeutic Nutrition	PSO1	CO1	Gain knowledge about different organ systems of the body
		PSO1	CO2	Understand the pathophysiology of different disease conditions
		PSO1 PSO2	CO3	Understand skills and techniques in the planning of therapeutic diet for various diseases and nutritional deficiencies.
		PSO4 PSO6 PSO10	CO4	Gain knowledge in diet counseling and educating patients.
CN3CRT08	Food Commodities I	PSO1	CO1	Understand the raw and processed food commodities used in daily life.
		PSO4	CO2	Gain knowledge about the qualities of available commodities and their suitability for different purposes
		PSO3	CO3	Understand the major chemical reactions that occur during food preparation and storage
		PSO10	CO4	Application of principles and methods of cookery in daily life
CN3CRTO9	Community Nutrition	PSO1	CO1	Understand the importance of nutrition in national progress and the significance of the assessment of nutritional status.
		PSO2 PSO9	CO2	Find solutions to overcome problems of malnutrition in the community.
		PSO7	C03	Learn about various food systems and supply chains that influence the society
		PSO2 PSO10	C04	Provide a foundation to work as public health nutritionist

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CN3CRP01	Therapeutic Nutrition I	PSO1	CO1	Understand the nutritive values of different food groups using food exchange list
		PSO1 PSO4	CO2	Emphasis skill development in planning therapeutic diets using food exchange lists
		PSO2 PSO4	CO3	Application of therapeutic principles in diet planning
		PSO2 PSO4 PSO10	CO4	Create a healthy society by imparting practical knowledge on modification of normal diets to women
CN3CRPO2	Community Nutrition	PSO1	CO1	Develop skills in field application of the techniques of assessing nutritional status.
		PSO1 PSO2	CO2	Acquire skills in organizing and implementing community nutrition projects.
		PSO8	CO3	Identify the nutritional problems and deficiencies that affect different communities and to develop strategies to prevent and manage these issues
		PSO10	CO4	Application of preventive strategies at household and societal level

Semester: IV

CN4CRT10	General Microbiology	PSO1 PSO2	CO1	Acquire an elementary knowledge about microorganisms
		PSO2	CO2	Understand basics of microbial culture
		PSO1 PSO10	CO3	Understand the beneficial effects of microorganisms in different fields
		PSO1 PSO9 PSO10	CO4	Acquire knowledge about the hospital acquired diseases and its prevention

CN4CRT11	Food Commodities II	PSO1	CO1	Understand the composition and nutritive value of different commodities used in daily life
		PSO4	CO2	Analyze qualities and standard of available commodities and their suitability for different purposes
		PSO3	CO3	Acquire knowledge on processing techniques of different commodities
		PSO10	CO4	Analyse the suitability of different cooking methods for various food commodities
CN4CRP03	Therapeutic Nutrition Practical II	PSO1	CO1	Provide greater exposure to modification in normal diet
		PSO1 PSO4	CO2	Emphasis skill development in the planning and preparation of therapeutic diet
		PSO2 PSO4	CO3	Enable the students to plan and prepare diet to the family during different disease conditions
		PSO2 PSO4 PSO10	CO4	Application of diet planning towards the therapeutic approaches of the diseases
CN4CRP04	Quantity Food Production Practical	PSO1	CO1	Understand the properties and functions of basic ingredients used in cookery
		PSO1 PSO10	CO2	Understand the weights and measures of ingredients used in cookery
		PSO4 PSO10	CO3	Application of standardization principles in quantity food production
		PSO10	CO4	Enable students to organize, prepare and serve food quantitatively

Semester: V

CN5CRT12	Food Microbiology, Sanitation & Hygiene	PSO1	CO1	Understand the role of microorganisms in food contamination and spoilage
		PSO5 PSO8	CO2	Impart knowledge on various techniques of food preservation
		PSO10	CO3	Acquire technical skills on waste management and pest control
		PSO5 PSO10	CO4	Understand the need for implementing sanitation and hygiene procedures at industrial and household level

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CN5CRT13	Personnel Management	PSO1 PSO5	CO1	Understand the concept and structure of organization
		PSO5	CO2	Understand the management of human resources in food service establishments.
		PSO5	CO3	Understand the management of material resources in food service establishment
		PSO5 PSO10	CO4	Understand the management of material resources in home economics
CN5CRT14	Research Methodology & Statistics	PSO2 PSO8	CO1	Understand the fundamentals of research and statistics
		PSO2	CO2	Develop practical application of statistics in research
		PSO2	CO3	Enable the students to scientifically write paper or report
		PSO2 PSO3	CO4	Enable the students to be a good researcher to study the problems of the society
CN5OPT16	Food Fortification	PSO2	CO1	Gain knowledge on nutritional problems prevalent in India
		PSO2 PSO10	CO2	Understand the role of fortification in national nutritional development
		PSO1	CO3	Acquire knowledge about advantages, techniques and limitations of food fortification.
		PSO7	CO4	Enable the students to fortify the food in relation to deficiency disorders.
CN5CRP05	Food Science Practical	PSO1	CO1	Understand the effect of various cooking methods on different food groups
		PSO1	CO2	Understand the various methods of sensory analysis
		PSO8 PSO10	CO3	Application of technical skills at industrial and household level
		PSO1 PSO3	CO4	Understand the effect of temperature differences on different food commodities

Semester: VI

CN6CRT17	Food Safety	PSO10	CO1	Understand the importance of food safety in preventing food borne illness and protecting public health
		PSO3	CO2	Learn about the common causes of food borne illness
		PSO9	CO3	Understand the principles of HACCP in identifying and controlling health hazards.
		PSO9	CO4	Develop effective communication skill and ability to educate consumers about food safety risks and practices.
CN6CRT18	Food Adulteration	PSO7	CO1	Understand the different food adulterants and its impacts
		PSO1 PSO8	CO2	Acquire knowledge about the hazards of adulterants
		PSO8 PSO9	CO3	Gain knowledge on different food additives used in food industry
		PSO9	CO4	Identification and analysis of adulterants in different food commodities
CN6CRT19	Preventive Nutrition	PSO1	CO1	Understand the importance of preventive nutrition in the current scenario
		PSO7	CO2	Understand the role of Food security in National Development
		PSO1	CO3	Understand the recent development in the field of nutrigenomics
		PSO10	CO4	Enable the students to promote the health of individual, family and community
CN6CRT20	Food Service Management	PSO5	CO1	Gain knowledge about different cuisines
		PSO2	CO2	Understand the different types and styles of food service
		PSO5	CO3	Impart knowledge regarding different cooking and service equipments
		PSO2	CO4	Understand the structure and development of kitchen design

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CN6CRT21	Food Preservation	PS08 PSO3	CO1	Understand the basic principles of food preservation
		PSO3	CO2	Learn about the different types of food preservation methods
		PSO3 PSO8	CO3	Learn about new and emerging methods of food preservation and their advantages and challenges
		PS03	CO4	Apply knowledge and skill to contribute effectively to the food processing and preservation industry
CN6CRP06	Meal Management Practical	PSO5	CO1	Learn the principles of meal planning
		PSO5 PSO1	CO2	Plan and prepare meals for individuals at different stages of life cycle
		PSO1 PSO4	CO3	Plan and prepare meals for individuals at different economic levels
		PSO5	CO4	Create meal plan for individuals at different physiological levels
CN6PRP07	Project	PS02	CO1	Understand the risk of nutrient deficiencies and importance of consuming healthy diets
		PS07	CO2	Acquire knowledge on development of low cost recipes using locally available foods
		PS09	CO3	Preparation of visual aids as a tool for nutrition education
		PSO1	CO4	Acquire a basic knowledge on project report writing
CN6OJP08	On The Job Training	PSO5 PSO8	CO1	Provide greater exposure to dietetic practices followed in hospitals.
		PSO1 PSO4	CO2	Understand clinical and pathological conditions of various diseases, planning diet, prescription and dietary intervention for the same
		PSO4 PSO8	CO3	Clinical examination of patients and application of dietetic counseling
		PSO10 PSO5	CO4	Practice the state of holistic living at every aspect of life stage

CLINICAL NUTRITION AND DIETETICS

COMPLEMENTARY COURSES

Semester: I

Course code	Course Title	Course Outcome	
SEMESTER I			
CN1CMT01	Fundamentals Of Biochemistry	CO1	Understand the basics of biomolecules
		CO2	Study about energy currency of cell and chemical messengers
		CO3	Understand the mechanisms involved in the storage and utilization of energy in cells.
		CO4	Able to differentiate the effect of the enzyme on the change in free energy of reaction
CN1CMT02	Human Anatomy And Physiology I	CO1	Understand the general structure and functions of various systems and organs of the body
		CO2	Analyse the basic organ system mechanism of the body
		CO3	Understand the role of each body system in maintaining homeostasis
		CO4	Understand factors that can influence or disrupt the normal functions of the body
CN2CMT03	General Biochemistry	CO1	Understand the basic of genetic engineering
		CO2	Understand the molecular basis and mechanisms of genetic information and gene expression.
		CO3	Understand the biochemical basis of various human diseases and their treatment.
		CO4	Acquire knowledge about the importance of environmental biochemistry

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SEMESTER II			
CN2CMP01	Biochemistry Practical 1	CO1	Develop practical skills in the use of laboratory equipments
		CO2	Analyse the presence of biochemical molecules like carbohydrates
		CO3	Familiarizes the appropriate safety protocols and ethical consideration when working with biohazardous material
		CO4	Enable the students to get practical experience in clinical nutrition
CN2CMT04	Human Anatomy And Physiology II	CO1	Gain knowledge about the physiological mechanism of circulatory system and respiratory system
		CO2	Understand the defense mechanism of the body
		CO3	Understand the physiological changes in several disease state
		CO4	Impart knowledge regarding function and role of vital organs
CN2CMP02	Human Physiology Practical I	CO1	Identify and analyses body cells and fluids
		CO2	Lean how to use laboratory equipments and instruments to analyse physiological processes
		CO3	Provide hands on learning experience that complements the theoretical knowledge of human anatomy and physiology
		CO4	Gain technical skill in physical examination of the body
SEMESTER III			
CN3CMT05	Nutritional Biochemistry	CO1	Understand the structure and function of biomolecules such as amino acids, carbohydrates, lipids, and nucleic acids.
		CO2	Understand the biochemical pathways and processes involved in metabolic regulation and homeostasis
		CO3	Understand the role of enzymes and cofactors in catalyzing biochemical reactions.
		CO4	Understand the application of the biochemistry in food nutrition and diet therapy

CN3CMT06	Human Anatomy And Physiology III	CO1	Understand the organization and relationships of the body's structural components, such as muscles and nerves.
		CO2	Identify factors that can influence or disrupt the normal functions of the body, such as diseases, genetic disorders, and physiological stressors
		CO3	Gain knowledge about the physiological mechanism of endocrine system and reproductive system
		CO4	Understand the functions and importance of hormones in the body
SEMESTER IV			
CN4CMT07	Biochemical aspects of Nutrition	CO1	Understand the mechanisms involved in the storage and utilization of vitamins and minerals
		CO2	Acquire knowledge about micronutrients and its functions of the body
		CO3	Understand the metabolism of micronutrients in the human body
		CO4	Understand the interrelationship between nutrients
CN4CMP03	Biochemistry Practical II	CO1	Develop practical skills in the use of laboratory equipments
		CO2	Identify and quantify biomolecules in biological samples
		CO3	Provide students with practical skills and knowledge in biochemistry
		CO4	Prepare them for careers in research, healthcare, and related industries.
CN4CMT08	Human Anatomy And Physiology IV	CO1	Understand the general structure and functions of sense organs
		CO2	Understand the physiological changes in varying physiological conditions
		CO3	Understand the regulatory mechanism such as blood pressure, temperature and heart rate
		CO4	Understand the organization and structure of skeletal system

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CN4CMP04	Human Physiology Practical II	CO1	Make the students aware of the constituents of blood
		CO2	Analyse the physical and chemical constituents in urine
		CO3	Analyse the physical and chemical constituents in saliva
		CO4	Understand the importance of haematology in day to day life

B.Sc CLINICAL NUTRITION AND DIETETICS PO AND CO MAPPING

S1: Basic Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	3			2				
CO2						3			2	3
CO3	3			3						
CO4	3	3	3						2	3

S1:Basic Dietetics

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	2		3					
CO2	3	3	3		3	3				
CO3		3	3		3				2	3
CO4				3	3					3

S1:Family Meal Management I

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3	2			2	
CO2				3		3		2		
CO3	3									2
CO4	3							2	1	3

S2:Advanced Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3									
CO3	3			3	2	3				
CO4	3	2								3

S2: Clinical Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3			2		2				
CO3	3	3						2		
CO4										3

S2: Family Meal Management II

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				3	2					
CO2										3
CO3				3	2					
CO4										3

S3:Therapeutic Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2									
CO2	2									
CO3	3	3								
CO4				3		3				3

S3: Food Commodities I

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2									
CO2				2						
CO3			3							
CO4										3

S3: Community Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2		2							3	
CO3							3			
CO4		3								3

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S3:Therapeutic Nutrition I Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3			3						
CO3		3		3						
CO4		3		3						3

S3: Community Nutrition Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3	2								
CO3								2		
CO4										3

S4: General Microbiology

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2								
CO2		3								
CO3	3									3
CO4	3								2	3

S4: Food Commodities II

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2									
CO2				2						
CO3			3							
CO4										3

S4:Therapeutic Nutrition Practical II

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3			3						
CO3		3		3						
CO4		3		3						3

S4: Quantity Food Production Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3									2
CO3				3						3
CO4										3

S5:Food Microbiology, Sanitation & Hygiene

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2					3			2		
CO3										3
CO4					3					2

S5:Personnel Management

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3				3					
CO2					3					
CO3					3					
CO4					3					2

S5:Research Methodology & Statistics

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		3						3		
CO2		3								
CO3		3								
CO4		2	3							

S5:Food Fortification

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		3								
CO2		3								3
CO3	2									
CO4							3			3

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S5:Food Science Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2	3									
CO3								3		3
CO4	2		2							

S6: Food Safety

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1										3
CO2		3								
CO3									3	
CO4									3	

S6: Food Adulteration

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1							3			
CO2	3							2		
CO3								3	2	
CO4									3	

S6:Preventive Nutrition

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3									
CO2							2			
CO3	3									
CO4										3

S6: Food Service Management

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3					
CO2		3								
CO3					3					
CO4		3								

S6: Food Preservation

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			2					3		
CO2			3							
CO3			3					3		
CO4			3							

S6: Meal Management Practical

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3					
CO2	2				3					
CO3	3			3						
CO4					3					

S6: Project

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		3								
CO2							3			
CO3									3	
CO4	3									

S6: On the Job Training

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3			3		
CO2	3			3						
CO3				3				3		
CO4					3					3

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ASSESSMENT TOOLS

1. CLASS TEST (SAMPLE)

I INTERNAL EXAMINATION - DECEMBER 2022
SEMESTER I - I B.Sc. CLINICAL NUTRITION & DIETETICS

CN1CRT02: BASIC DIETETICS

Part A (Short Answers)
(Answer all questions. Each question carries 5 marks)

1. Explain the routine hospital diet. understand/CO2, PSO1
2. Differentiate enteral and parenteral nutrition. Analyze/CO2, PSO2
3. Distinguish directive and non-directive nutrition counselling. Analyze/CO3, PSO5
4. Explain the psychology of feeding the patient. Understand CO1, PSO2.

(4x5 = 20)

2. END SEMESTER EXAMINATION

QP CODE: 23114099

Reg No: .....

Name : .....

B.Sc. DEGREE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATIONS, APRIL 2023

FIFTH SEMESTER

B.Sc Clinical Nutrition and Dietetics Model III

CORE COURSE-CN5CRT14-RESEARCH METHODOLOGY AND STATISTICS

2020 Admission
Only 8EBCA870

Time: 3 Hours Max. Marks: 80

Part A
Answer any ten questions. Each question carries 2 marks.

1. How does experience survey helps in a research? Understand (CO1, PSO2)
2. Discuss the features of research design. Remember (CO1, PSO2)
3. What are the characteristics of ordinal data? Remember (CO1, PSO8)

4. Write about the merits of participant observation. Remember (CO4, PSO3)
5. What is the importance of question wording and d language in questionnaire preparation? Analyse (CO1, PS)
6. Discuss thematic apperception test. Remember (CO4, PSO3)
7. List out the structure of scientific report. Remember (CO3, PSO2)
8. List out the types of report writing. Remember (CO3, PSO2)
9. Write any three objectives of tabulation. Remember (CO3, PSO2)
10. Define mean. How is it computed? Remember/Understand (CO2, PSO2)
11. Define variance. How is it computed? Understand / Remember (CO2, PSO2)
12. What are the 2 equations of regression analysis? Remember (CO2, PSO2)

(10×2 = 20)

Part B

Answer any six questions. Each question carries 5 marks.

13. Define research. What is the significance of doing research? Understand / Analyse (CO1, PSO2)
14. What are the limitations of survey? Remember (CO1, PSO2)
15. How is interview schedule differ from questionnaire? Analyse (CO1, PSO8)
16. Discuss the common errors in rating. Understand (CO1, PSO2)
17. Explain any four points for preparing a scientific paper. Undestand (CO3, PSO2)
18. Explain plagiarism and citation. Understand (CO3, PSO2)
19. What is cluster sampling and quota sampling? Remember (co2, PSO2)
20. What is one dimensional diagram and the types with example? Remember (CO2, PSO2)
21. What is bar diagram and its types? Remember (CO2, PSO2) (6×5 = 30)

Part C

Answer any two questions. Each question carries 15 marks.

22. Explain research problem, its importance, identification and selection of problem. Understand (CO1, PSO2)
23. How will you conduct a case study? What are the precautions needed in choosing an object? Create (CO4, PSO2)

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24. Write notes on a) bibliography b) referencing c) footnotes. Remember (CO1, PSO2)

25. Write notes on regression analysis. Remember (CO2, PSO2)

(2×15 = 30)

3. SEMINAR (Sample Format)

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Content					
Methodology					
Technology					
Communication					
Interaction					

4. ASSIGNMENT

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Revelance of the Topic					
Content					
Presentation					
Methodology					
Timely Submission					

5. INDUSTRIAL VISIT

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Planning					
Visiting					
Reporting					
Interaction					

6. INTERNSHIP

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Attendance					
Punctuality					
Skill and Competence					
Subject Knowledge					

7. PRACTICAL

Name of the student

Programme

Course

Academic year

Register Number

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	Excellent	Very Good	Good	Average	Below Average
Experiment					
Skill					
Time and Discipline					
Result					

8. PROJECT

Name of the student

Programme

Course

Academic year

Register Number

	Excellent	Very Good	Good	Average	Below Average
Relavance					
Punctuality					
Methods					
Knowledge					

B.Sc. Mathematics - Model 1

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Understand the basic concept of logic, analytic geometry, calculus,abstract and linear algebra,metric space, graph theory, differential equations, real/complex analysis
PSO2	Develop mathematical arguments from real world problems and interpret them.
PSO3	Acquire good knowledge and understanding in advanced areas of mathematics and statistics
PSO4	Compare, relate and use quantitative models arise from various contexts for further extension of their studies
PSO5	Develop proficiency in categorize and examine advanced areas of mathematics and statistics, chosen by the student from the given courses for future research and societal applications
PSO6	Create solution to real world problems applying Mathematical Models

COURSE OUTCOMES (COs)

CORE COURSES

Semester: I

Course Code	Course Title	PSO		CO
MM1CRT01	Foundation of Mathematics	PSO1	CO1. 1	Learn basic logics in Mathematics and recognize the method and the strategy to prove mathematical statements
		PSO3	CO 1.2	Understand basic operations on sets and functions.
		PSO2 PSO4	CO1. 3	Differentiate different types of relations with properties and acquire good knowledge to represent relations, equivalence relations, posets, Prove statements about sets and functions

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		PSO5	CO1. 4	Analyse and relate roots and coefficients of different types of equations, and create different equations from their roots and find algebraic solutions using general results.
MM2CRT01	Analytic Geometry, Trigonometry Differential Calculus		CO 2.1	Classify and recognize the conics. Sketch the conic
			CO 2. 2	Identify the type of trigonometric summation of series Solve the problems in trigonometry
			CO 2.3	Recognize and solve the problems in successive differentiation
			CO 2.4	Classify the type of indeterminate forms and identify the solution
MM3CRT01	Calculus	PSO1 PSO2	CO 3.1	Recognize the Taylors and Maclaurin's series
		PSO4 PSO5	CO3. 2	Explain concavity and identify the points of inflexion Define and find curvature, centre of curvature, evolutes asymptotes, envelopes of a given curve
		PSO2 PSO4	CO3. 3	Solve partial differentiation problems using chain rule
		PSO5 PSO6	CO 3.4	Find volumes of solid using integration Solve multiple integral problems
MM4CRT01	Vector Calculus, Theory of Numbers and Laplace transforms	PSO PSO2	CO 4.1	Understand vectors to perform geometrical calculations in three dimensions.
		PSO2 PSO3 PSO5	CO4. 2	Calculate and interpret derivatives in up to three dimensions.
		PSO3 PSO5	CO 4.3	Integrate functions of several variables over curves and surfaces.
		PSO3 PSO6	CO4. 4	Use greens theorem, Gauss Divergence Theorem and Stokes theorem to compute various integrals such as Line, surface and Volume integrals.

MM5CRT01	Mathematical Analysis	PSO1	CO 5.1	Explain real number system and its properties
		PSO2	CO 5.2	The learner understands the structure and properties of the real number system.
		PSO1 PSO3	CO 5.3	Understand the basic topological properties of the real numbers.
		PSO5 PSO6	CO 5.4	The student will be able to construct rigorous mathematical proofs of basic results in real analysis
MM5CRT02	Differential Equations	PSO5	CO 5.1	Obtain an integrating factor which may reduce a given differential equation into an exact one and eventually provide its solution.
		PSO1 PSO5	CO 5.2	Find the complementary function and particular integrals of linear differential equation.
		PSO4 PSO5	CO 5.3	Apply power series method to solve second order differential equation
		PSO5 PSO6	CO 5.4	Analyse the nature of solution of the differential equation
MM5CRT03	Abstract Algebra	PSO5 PSO4	CO 5.1	Assess properties implied by the definitions of groups and subgroups
		PSO3 PSO5	CO 5.2	Use various canonical types of groups (including cyclic groups and groups of permutations) ; Use the concepts of isomorphism and homomorphism for groups
		PSO3 PSO4	CO 5.3	Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups; Analyze and demonstrate examples of ideals and quotient rings.
		PSO5 PSO6	CO 5.4	Use the concepts of isomorphism and homomorphism for rings.Produce rigorous proofs of results arising in the context of abstract algebra

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	Human rights and Mathematics for Environmental Studies	PSO5	CO 5.1	List the complex environmental issues, and take necessary steps to keep our environment healthy and sustainable for the future.
		PSO2 PSO5	CO 5.2	Understand biodiversity and weigh the Importance of its conservation.
		PSO2 PSO6	CO 5.3	Develop brief idea of Fibonacci numbers and Golden ratio.
		PSO6	CO 5.4	Understand the idea of Human Rights and study its importance.
Open course: - MM5OPT02	Applicable Mathematics	PSO1 PSO2	CO 5.1	Understanding the basic operations of Mathematics
		PSO3 PSO2	CO 5.2	Applies shortcut methods for solving problems.
		PSO2 PSO4 PSO6	CO 5.3	Apply mathematical concepts and principles to perform computations.
		PSO4 PSO5 PSO6	CO 5.4	Apply mathematics to solve real life problems; Create, use and analyze graphical representations of mathematical relationships; Communicate mathematical knowledge and understanding.
MM6CRT01	Real Analysis	PSO1	CO6. 1	Understand the theory of continous function
		PSO3 PSO4	CO6. 2	Understand theorems related to differentiation.
		PSO6	CO6. 3	Determine the Riemann integrability of a bounded function and establish properties of integrable functions
		PSO4	CO6. 4	Understand sequence and series of function.

MM6CRT02	Graph Theory and metric spaces	PSO1 PSO2 PSO5	CO6. 1	Write precise and accurate mathematical definitions of objects in Graph theory
		PSO3 PSO5	CO6. 2	Analyze different properties that depend on the connectivity of a graph
		PSO4 PSO5	CO6. 3	Understand Euclidean distance and generalize that idea to arbitrary sets.
		PSO4 PSO6	CO6. 4	Extend the concepts like convergence and limits of analysis to Metric spaces
MM6CRT03	Complex Analysis	PSO1 PSO2	CO6. 1	Define and analyze limits and continuity for complex functions as well as consequences of continuity
		PSO1 PSO3	CO6.2	Conceive the concepts of analytic functions and be familiar with the elementary complex functions and their properties
		PSO5	CO6. 3	Apply the concept and consequences of analyticity and the Cauchy Riemann equations and of results on harmonic and entire functions including the fundamental theorem of algebra
		PSO3 PSO5 PSO6	CO6.4	Understand the basic methods of complex integration and its application in contour integration
MM6CRT04	Linear Algebra	PSO1 PSO2	CO6.1	Understand the idea about vector space and metric space.
		PSO2 PSO3	CO6.2	Analyze finite and infinite dimensional vector spaces and subspaces over a field and their properties, including the basis structure of vector spaces.
		PSO2 PSO4	CO6.3	Use the definition and properties of linear transformations and matrices of linear transformations and change of basis, including kernel, range and isomorphism.
		PSO4 PSO5 PSO6	CO6.4	Compute with the characteristic polynomial, eigenvectors, Eigen values and Eigen spaces, as well as the geometric and the algebraic multiplicities of an Eigen value and apply the basic diagonalization result.

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Choice Based Course- MM6CBT01	Operations Research	PSO1 PSO2 PSO3	CO6.1	Understand Transportation Problem, Assignment problem and Theory of games.
		PSO4 PSO5 PSO6	CO6.2	Formulate and model a linear programming problem from a word problem and solve them graphically in 2 and 3 dimensions, while employing some convex analysis.
		PSO3 PSO5	CO6.3	Explains the Transportation Problem and formulate it as an LPP and hence solve
		PSO3 PSO5 PSO6	CO6.4	Find the solution of the game by using different methods like arithmetic method, Matrix method, Graphical method and Linear programming method etc.
MM6PRT01:	Project	PSO5 PSO6	CO6.1	To build research and analytical skill, thereby equipping the students to prepare comprehensive study report
		PSO4 PSO6	CO6.2	To appreciate the knowledge and understanding of the students in research and analysis

B.Sc Mathematics

PSO-CO Mapping

0-No correlation, 1-Slight Correlation, 2-Moderate Correlation, 3-Substantial Correlation

SEMESTER 1						
MM1CRT01 Foundation of Mathematics						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO1. 1	3	-	-	-	-	-
CO 1.2	-	-	2	-	-	-
CO1. 3	-	1		3	-	-
CO1. 4	-	-	-	-	2	-

SEMESTER 2						
MM2CRT01 Analytic Geometry, Trigonometry, Differential Calculus						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO2. 1		-	-	-	-	3
CO2. 2		-	2	1	-	-
CO 2. 3		-	1	2	-	-
CO 2. 4	-	-	-	1	3	-
SEMESTER 3						
MM3CRT01 Calculus						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 3.1		2	-	-	-	-
CO3. 2		-	-	2	2	-
CO3. 3	-	2	-	2	-	-
CO 3.4	-	-	-	-	1	1
SEMESTER 3						
MM3CRT01 Calculus						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 3.1		2	-	-	-	-
CO3. 2		-	-	2	2	-
CO3. 3	-	2	-	2	-	-
CO 3.4	-	-	-	-	1	1
SEMESTER 4						
MM4CRT01 Vector Calculus, Theory of Numbers and Laplace transforms						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 4.1	-	3	-	-	-	-
CO4. 2	-	3	2	-	1	-
CO 4.3	-	-	3	-	1	-
CO4. 4	-	-	2	-	-	1
SEMESTER 5						
MM5CRT01 Mathematical Analysis						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 5.1	3	-	-	-	-	-
CO 5.2	-	2	-	-	-	-
CO 5.3	3	-	2	-	-	-
CO 5.4	-	-	-	-	2	3

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MM5CRT02 Differential Equations						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 5.1	-	-	-	-	2	-
CO 5.2	2	-	-	-	3	-
CO 5.3	-	-	-	2	3	-
CO 5.4	-	-	-	-	3	2
MM5CRT03 Abstract Algebra						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 5.1	-	-	-	-	2	3
CO 5.2	-	-	2	-	1	-
CO 5.3	-	-	2	3	-	-
CO 5.4	-	-	-	-	2	3
Human rights and Mathematics for Environmental Studies						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 5.1	-	-	-	-	2	-
CO 5.2	-	3	-	-	1	-
CO 5.3	-	3	-	-	-	3
CO 5.4	-	-	-	-	-	3
Open course - MM5OPT02 Applicable Mathematics						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO 5.1	3	3	-	-	-	-
CO 5.2	-	-	2	3	-	-
CO 5.3	-	2	-	3	-	3
CO 5.4	-	-	-	3	3	3
SEMESTER 6						
MM6CRT01 Real Analysis						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO6. 1	2	-	-	-	-	-
CO6. 2	-	-	2	1	-	-
CO6. 3	-	-	-	-	-	3
CO6. 4	-	-	-	3	-	-

MM6CRT02 Graph Theory and metric spaces						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO6. 1	3	3	-	-	3	-
CO6. 2	-	-	3	-	3	-
CO6. 3	-	-	-	2	3	-
CO6. 4	-	-	-	3	-	3
MM6CRT03 Complex Analysis						
CO6. 1	2	3	-	-	-	-
CO6. 2	2	-	3	-	-	-
CO6. 3	-	-	-	-	3	-
CO6. 4	-	-	2	-	3	1
MM6CRT04 Linear Algebra						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO6. 1	2	2	-	-	-	-
CO6. 2	-	2	3	-	-	-
CO6. 3	-	2	-	2	-	-
CO6. 4	-	-	-	3	1	2
Choice Based Course- MM6CBT01 Operations Research(OR)						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO6. 1	3	2	3	-	-	-
CO6. 2	-	-	-	1	2	3
CO6. 3	-	-	2	-	3	-
CO6. 4	-	-	1	-	3	2
MM6PRT01 Project						
CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**
CO6. 1	-	-	-	-	3	3
CO6. 2	-	-	-	2	-	3

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ASSESSMENT TOOLS - B. Sc Mathematics

1. END SEMESTER EXAMINATION (Sample)

B.Sc. Degree (CBCS) EXAMINATION, JUNE 2023

Core Course –MM1CRT01- FOUNDATIONS OF MATHEMATICS

Maximum Marks: 80 Time:3 Hours

Part A

Answer any ten questions. Each question carries 2 marks.

1. State and prove commutative laws for logical equivalence. [PSO2/CO2]
2. Find an example for Universal Quantifier. [PSO1/CO1]
3. Using direct method, prove that sum of two odd integers is even. [PSO4/CO3]
4. Illustrate the difference of the sets A and B and the complement of A using Venn Diagram. [PSO3/CO2]
5. Identify the difference between f^{-1} and . [PSO1/CO2]
6. Explain strictly increasing and strictly decreasing functions. [PSO1/CO2]
7. Examine whether "divides" relation on the set of all positive integers is not an equivalence relation. [PSO3/CO3]
8. Construct the diagram that represents the relation {(1,1),(1,4),(2,2),(3,2),(3,1)} on the set {1,2,3,4}. [PSO4/CO3]
9. Construct a rational quadratic equation whose roots are $1,-1,2+\sqrt{3}$. [PSO5/CO4]
10. Discuss the nature of the roots of the cubic equation $x^3+3Hx+G=0$. [PSO5/CO4]
11. Identify at least one root of the equation $2x^5+x^4+x+2=12x^2(x+1)$. [PSO2/CO4]
12. Test the validity of following statement with proper reasoning. "x=-1 is always a root of the odd degree reciprocal equation of second kind. [PSO3/CO4]

Part B

Answer any six questions. Each question carries 5 marks.

13. Examine whether $p \vee (p \wedge q)$i is a tautology. [PSO1/CO1]
14. Use the rule of inference to show that the hypotheses 'Ravi works hard', 'If Ravi works hard, then he is a dull boy' and 'If Ravi is a dull boy, he will not get the job' imply the conclusion 'Ravi will not get the job'.[PSO2,PSO6/CO1]

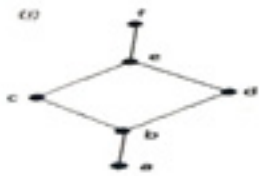
15. Make the use of contraposition method to prove that if 'n' is an integer and n^3+5 is odd, then 'n'. [PSO5/CO1]

16. Let A={a,b,c},b={x,y},c={0,1}. Find C×B×A. [PSO3/CO2]

17. Prove that $\overline{(A \cap B)} = \bar{A} \cup \bar{B}$. [PSO4/CO2]

18. Show that the function f defined from R to R by f(x)=ax+b with a and b constants is an invertible function where $a \neq 0$. Also find the inverse of f.[PSO4/CO2]

19. Determine whether the posets with these Hasse Diagrams are lattices. [PSO3/CO3]



20. If α,β,γ are the roots of the equation $x^3+qx+r=0$, formulate the equation whose roots are $\beta+\gamma-2\alpha,\gamma+\alpha-2\beta,\alpha+\beta-2\gamma$. [PSO4/CO4]

21. Discuss whether the equation $6x^4-13^3-35x^2-x+3=0$ has one root $2-\sqrt{3}$. [PSO3/CO4]

Part C

Answer any two questions. Each question carries 15 marks.

22. (a) Check the validity of the following arguments;

H1 :If the computer was down Saturday afternoon, then Mary went to a matinee.

H2 :Either Mary went to a matinee or took a nap Saturday afternoon.

H3 : Mary did not take a nap that afternoon.

Conclusion : The computer was down saturdy afternoon.

(b) Define (i) modus ponens

(ii) Modus tollens

(iii) Addition [PSO1/CO1]

23. a) Define and plot the graphs of floor and ceiling functions.

b) Show that congruence modulo 6 is an equivalence relation. [PSO3/CO2]

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24. i) Explain the terms equivalence relation and equivalence class.

    ii) Let m be a positive integer with m>1. Prove that the relation $R=\{(a,b):a\equiv b \pmod m\}$ is an equivalence relation. [PSO3/CO3]

25. a) Solve $x^4+3x^3+x^2-2=0$.

    b) Determine the nature of the roots of the equation $x^4+3x^2+2x-7=0$.

    [PSO4/CO4]

2) Class Test(SAMPLE)

ALPHONSA COLLEGE PALA

INTERNAL EXAMINATION

SEMESTER V B Sc MATHEMATICS

DIFFERENTIAL EQUATIONS

Time: 1 Hr **Marks: 20**

PART A

(Answer any three Questions. Each carries two marks)

1. Find the complementary function for the D.E $x^2 y''+3xy'+10y=0$. (PSO1/CO2).
2. Find the integrating factor of the equation $4xy\frac{dy}{dx}=y^2+1$. (PSO2/CO1)
3. Define an ordinary point of a differential equation. (PSO1/CO4)
4. Determine whether the equation $(1+y^2\sin 2x)dx - 2yxdy = 0$ is exact. (PSO3/CO1)

(2× 3 = 6)

PART B

(Answer any two Questions. Each carries three marks)

5. Use power series method to solve the differential equation $y'= 2xy$. (PSO5/CO3)
6. Create a partial differential equation by eliminating the constants a and b from $2z =(ax + y)^2 + b$. (PSO6/CO1)
7. Solve the initial value problem $x^2 y' + xy = 2x$; $y(1) = 1$. (PSO4/CO3)

(4 × 2 = 8)

PART C
(Answer any one Question)

8. The equation $x^2 y'' + xy' + (x^2 - \frac{1}{4})y = 0$ is a special case of Bessel's equation. Examine that $y_1(x) = x^{-\frac{1}{2}}) \sin x$ is a solution for $x > 0$ and find the general solution. (PSO5/CO3).

9. Use the method of Frobenius series to solve $2xy''+(x+1)y'+3y =0$. (PSO6/CO3)

$(1 \times 6 = 6)$

3. SEMINAR (Sample Format)

Name of the student: Reg. No:

Course:

Programme: Academic year:

	Excellent	Very good	Good	Average	Below Average
Content					
Presentation					
Use of Technology					
Communication					
Interacion & Discussion					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

4. ASSIGNMENT

Name of the student: Reg. No:

Course:

Programme: Academic year:

	Excellent	Very good	Good	Average	Below Average
Content					
Relevance of the topic					
Systematic Presentaion					
- Methodology & Timing submission					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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5. PROJECT

Name of the student: Reg. No:

Course:

Programme: Academic year:

	Excellent	Very Good	Good	Average	Below verage	
Presentation						Class test
Relevance of the topic						Assignment
Clarity						Quiz
Subject Knowledge						
result						

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

6. FIELD VISIT/ INDUSTRIAL VISIT/EXTERNAL LIBRARY VISIT

Name of the student: Reg. No:

Course:

Programme: Academic year:

	Excellent	Very Good	Good	Average	Below Average
Planning for Visit					
Place of Importance					
Visiting					
Report					
Interaction					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

7. VIVA

Name of the student: Reg. No:

Course:

Programme: Academic year:

	Excellent	Very Good	Good	Average	Below Average
Subject knowledge					
Presentation					
Result					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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B.Voc. Fashion Technology
PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Understand the basic cognitive on fashion illustration, apparel designing, draping and to develop the innovative skill in the field of pattern making and grading, garment construction, apparel embellishment and to rolling apparel industry.
PSO2	Evaluate skill orientation through leaning the procedures of the pattern drafting, pattern cutting, and process of fabric formation and construction of garments to textile industry.
PSO3	Apply updated knowledge of current trends of fashion and textiles in the creation of innovation design to produce garment to the modern textile industry.
PSO4	Develop modern tool and technologies using Coral Draw, Photoshop with using different types of garments designed and prepare the garment making to the textile and fashion industry.
PSO5	Enable and exhibit the demonstration in textile testing, fiber identification, dyeing and printing, textile processing in the modern world.
PSO6	Understand the foundation of garment manufacturing process and procedures.
PSO7	Develop fashion design in the business context by applying consumer psychology, markets and trends to create product lines.
PSO8	Enable the knowledge and skill to work in any fashion business. The learning will prepare students to take up careers in variety of fashion roles including designing, buying, merchandising, strategic marketing, e-commerce, sourcing and allocating sales and production management.
PSO9	Explain the historical and contemporary perspective: Knowledge of varied fashion trends, history of varied fabrics, embellishments, patterns and techniques from diverse historical and contemporary context.
PSO10	Develop fashion illustration techniques which help them to succeed as a unique professional in the Fashion industry.

COURSE OUTCOMES (Cos)

Course Code	Course Title	PSO	Course Outcome	
FTHG103	TEXTILE SCIENCE (AOC)	PSO1 PSO3 PSO5	CO1.1	Gain knowledge about different fabrics and to create new designs using printing techniques.
			CO1.2	Students will gain practical understanding of different textile materials.
			CO1.3	Students will develop understanding regarding the identification of textiles.
			CO1.4	Students get a creative knowledge on weaving and knitting process.
			CO1.5	Learn about the technicality of GSM and EPI, PPI process.
FTHS101	INTRODUCTION TO FASHION ART (AOC)	PSO1 PSO10	CO2.1	To understand the importance of anatomical studies as the basis of fashion model drawing.
			CO2.2	To realize the need for understanding, clarity and confidence in drawing of the human body as a mode of visual communication in fashion.
			CO2.3	Capacity to draw figure and sketch features and postures.
			CO2.4	To acquire the skills to use different medium pencil, water colour, poster colour etc.
			CO2.5	To understand the texture of fabric and render it.
FTHS102	FUNDAMENTALS OF SEWING TECHNIQUES (AOC)	PSO1 PSO2 PSO6	CO3.1	Students will learn about the Fundamental components of Garment construction.
			CO3.2	Students will be able to know about the different size charts and will be able to take measurement of the person.
			CO3.3	Students will develop various garment seams and seam finishes.
			CO3.4	Students will able to construct the various types of Pockets.
			CO3.5	To learn about the parts and functions of sewing machines and tools used for garment construction.

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FTHS103	SURFACE ORNAMENTATION (AOC)	PSO1 PSO3 PSO9	CO4.1	To acquire knowledge about hand embroidery
			CO4.2	To know the collection of different traditional Indian embroidery and to develop its samples
			CO4.3	To develop skills in creating, applique, cut work patch work, smocking,
			CO4.4	To develop creative ability in designing embroidery using sequence, beads, mirror work.
			CO4.5	To acquire knowledge on different types of fabric painting techniques.
FTHG201	FUNDAMENTALS OF APPAREL PRODUCTION (T)	PSO1 PSO2 PSO6	CO5.1	Learn about the basic concepts related to apparel industry.
			CO5.2	To study about infrastructure and various departments in an apparel industry.
			CO5.3	Gain an insight into the machinery and equipment required for garment production and fabrication- cutting, marker, spreading, special and ordinary sewing machines.
			CO5.4	Have a strong understanding of garment manufacturing process and production.
			CO5.5	Gain knowledge on apparel finishing equipment's and trims used in garment industry.
FTHS201	ELEMENTS OF DESIGN IN FASHION (AOC)	PSO1 PSO3 PSO10	CO6.1	Students are accredited with skills of drawing and usage of various art mediums.
			CO6.2	Competent to develop a good design through application of elements of design.
			CO6.3	Students are able to create composition using various colour schemes.
			CO6.4	To enable students to transfer the complete idea of design (colour, Texture, silhouette and technique) on paper.
			C06.5	To acquire skills for developing different types of boards of design process through manually.

FTHG202	INTRODUCTION OF FASHION BUSINESS (T)	PSO1 PSO7 PSO8	CO7.1	Students will learn about the basic terminologies used in fashion.
			CO7.2	Students will be able to know about the Indian and International designers.
			CO7.3	Students will develop and understand the process of fashion forecasting.
			CO7.4	Students will able to understand the various categories of fashion and its movement.
			CO7.5	To learn about importance of media in fashion industry.
FTHS202	Basics of Pattern Making and Construction (AOC)	PSO1 PSO2 PSO6	CO8.1	This course prepares the learner to acquire the knowledge and skills, regarding the operational use of industrial sewing machines, and INTRODUCTION pattern making techniques
			CO8.2	To understand the importance and necessity of basic pattern making and its construction
			CO8.3	Help to learn about the Neck line, facing and binding.
			CO8.4	Understand the types of plackets and uses of fasteners.
			CO8.5	Help to know about the types of sleeves, collars etc.
FTHS203	INTERNSHIP-1 (FASHION BOUTIQUE)	PSO1 PSO7 PSO8	CO9.1	To acquire knowledge on creating a business plan.
			CO9.2	Develop skills to run a business and sourcing of raw materials.
			CO9.3	To acquire knowledge on buyer customer relationship.
			CO9.4	Develop skills to run a boutique.
			CO9.5	Develop skills in research and development of boutique.

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FTHG301	**Merchandising in Fashion (T)**	PSO7 PSO8 PSO9	CO10.1	To create an awareness and understanding of the evolution and current structure of the apparel industry in India.
			CO10.2	To develop an understanding the different sectors of Indian textile industry.
			CO10.3	To develop an understanding and appreciation of the four r's and p's of merchandising
			CO10.4	To develop an ability to decide export merchandising.
			CO10.5	Basic principles of visual merchandising and effective.
FTHG302	CLOTHING CARE (T)	PSO2 PSO5 PSO6	CO11.1	Gain knowledge on care and maintenance of textiles.
			CO11.2	Acquire knowledge on care and maintenance of textile materials to prolong the durability and appearance of the fabric.
			CO11.3	Acquire knowledge about principles of washing.
			CO11.4	Know about the manufacturing of soap.
			CO11.5	Understanding the types of laundry.
FTHS301	WORLD COSTUME- I	PSO1 PSO9 PSO10	CO12.1	Learn an idea about the History of Western Costumes.
			CO12.2	Students will learn about the different eras of costumes and accessories used by the people of ancient culture.
			CO12.3	Students learn to illustrate the ancient costumes and contemporary costumes of the world.
			CO12.4	Students will be able to illustrate fashion garments inspired by different eras.
			CO12.5	Students will get a clear knowledge about the costumes created from the Palaeolithic era to the modern times.

FTHS302	DRAPING (AOC)	PSO1 PSO2	CO13.1	To identify and explain functions of different tools and supplies.
			CO13.2	To use the draping mannequin's using correct procedures.
			CO13.3	To acquire the basic skills and knowledge of draping styles.
			CO13.4	Estimate the fabric usage for draping of garments.
			CO13.5	Design and develop to creative designs and new patterns for garment in draping.
FTHS303	PATTERN MAKING, CONSTRUCTION AND GRADING BASICS (AOC)	PSO1 PSO2 PSO3 PSO8	CO14.1	Students will able acquired knowledge on creation of styles, fitting techniques and pattern alteration.
			CO14.2	To gain knowledge in drafting, draping and flat pattern alteration.
			CO14.3	To enhance knowledge about preparations of fabric, pattern layout and fitting styles of garments.
			CO14.4	To suggest suitable fabrics, colours and designs for all patterns.
			CO14.5	Classify and gain knowledge about pattern making and grading.
FTHG401	Advanced Fashion Illustration (AOC)	PSO1 PSO2 PSO3 PSO8	CO15.1	To acquire the skills to use different mediums.
			CO15.2	To understand the texture of fabric and render it.
			CO15.3	To develop an understanding, Analysis and Development of women's wear and its different look.
			CO15.4	To develop an understanding, Analysis and Development of women's wear.
			CO15.5	To develop an understanding, Analysis and Development of women's wear.
FTHG402	WORLD COSTUME- II	PSO1 PSO3 PSO9	CO16.1	Students get knowledge of differences of costumes in different era.
			CO16.2	Analyse fashion trends recurring throughout the world fashion cycle.
			CO16.3	Understand and discuss the fabric, style color, and fashion terminology used to identify characteristics of fashion in past and present.
			CO16.4	Understand the costume changes in civilization period.
			CO16.5	Learn about theatre costume designing and different types of theatres.

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FTHS401	WOMEN'S WEAR AND KIDS WEAR CONSTRUCTION (AOC)	PSO1 PSO2 PSO6	CO17.1	To create different types of patterns for women's wear such as kameez, salwar, churidar, saree blouse and cradile frock.
			CO17.2	To learn the drafting procedure for women's wear and kids wear.
			CO17.3	Construct and rephrase basic into modify patterns.
			CO17.4	Construct the garment as per the pattern and drafting procedure.
			CO17.5	Summarize the cost calculation for the garment.
FTHS402	PROJECT-1 (ECO-FRIENDLY GARMENT)	PSO5 PSO7 PSO8	CO18.1	To revive, preserve and support declining indigenous knowledge, resources and skills.
			CO18.2	To awaken the creativity of a community through sensitive design intervention.
			CO18.3	To update artistic technologies.
			CO18.4	To create a sustainable source of raw materials.
			CO18.5	To act as facilitator in assisting the crafts community to understand the ever-changing markets.
FTHG501	TEXTILE QUALITY ANALYSIS	PSO3 PSO5	CO19.1	Identifying textile fibres.
			CO19.2	Students get knowledge on textile testing.
			CO19.3	Students learn about different colourfastness testing.
			CO19.4	Understand the principles of different textile testing machines.
			CO19.5	Students get knowledge on quality concept about the components of textiles.
FTHS502	CHEMICAL PROCESSING AND FINISHING TEXTILES	PSO1 PSO5 PSO6	CO20.1	To obtain knowledge chemical processing of cotton and blended materials.
			CO20.2	Identifying the suitable process to process the fibre, yarn and fabrics through preparatory and dyeing processes.
			CO20.3	To evaluate the parameters and identifying the recipes for chemical processing of different materials.
			CO20.4	To gain knowledge on dyeing and finishing process.
			CO20.5	To enable students on eco-friendly processing I textiles.

FTHS501	MEN'S WEAR AND KIDS WEAR CONSTRUCTION	PSO1 PSO2 PSO6	CO21.1	To create different types of patterns for men's wear such as shirt, pants, vest coat and kids' romper.
			CO21.2	To learn the drafting procedure for men's wear and kids wear.
			CO21.3	Construct and rephrase basic into modify patterns.
			CO21.4	Construct the garment as per the pattern and drafting procedure.
			CO21.5	Summarize the cost calculation for the garment.
FTHS502	Soft Furnishing (AOC)	PSO1 PSO2 PSO6	CO22.1	To design and construct home furnishings.
			CO22.2	To have a collection of home furnishes for different people.
			CO22.3	To develop skills in creating home furnishing product.
			CO22.4	To develop creative ability in designing home furnishing.
			CO22.5	Can utilize the skill gained in furnishing for different types of rooms.
FTHS503	COMPUTER AIDED DESIGN	PSO1 PSO4 PSO10	CO23.1	Students get knowledge of Computer Aided Design in fashion industry.
			CO23.2	Improve creativity in designing of garments using Photoshop and coral draw.
			CO23.3	Develop knowledge in selection of color and fabric related current fashion trends.
			CO23.4	Students get knowledge for creating garments for various occasions using CAD software's.
			CO23.5	Create theme board, mood board, spec sheets and line collection using the software.
FTHG601	Accessory Design (AOC	PSO1 PSO2 PSO7	CO24.1	To acquire knowledge on different types of accessories.
			CO24.2	To train students to design accessories creatively using various Materials.
			CO24.3	To train students to design jewellery creatively using various materials.
			CO24.4	Develop skills in designing jewellery and accessory
			CO24.5	To gain knowledge in making bridal ornaments.

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FTHS602	TEXTILE DESIGN	PSO1 PSO4 PSO5 PSO10	CO25.1	Able to develop designs through various repeats patterns.
			CO25.2	Able to develop colour combination.
			CO25.3	Develop an understanding for various categories of prints.
			CO25.4	Identify the types of prints.
			CO25.5	Able to Identify the pattern, repeat and layout.
FTHS601	THEMATIC LINE DEVELOPMENT	PSO1 PSO4 PSO7 PSO10	CO26.1	Gain knowledge on theme board, inspiration board and mood board.
			CO26.2	Learn about specification sheet, cost sheet, season board and color board.
			CO26.3	Learn about connecting mind map to create mood, season and color.
			CO26.4	Learn about silhouettes, and color matching.
			CO26.5	Gain knowledge on line collection.
FTHS602	PORTFOLIO PRESENTATION	PSO4 PSO7 PSO10	CO27.1	Gain coloring techniques and page setting.
			CO27.2	Development of own individual styles.
			CO27.3	Learn about the importance of portfolio in fashion field.
			CO27.4	Adapt their artistic abilities to support their future design career.
			CO27.5	Demonstrate professionalism by managing time to meet deadlines with quality work and effectively collaborating teams.
FTHS603	INTERNSHIP-II (EXPORT HOUSE)	PSO1 PSO2 PSO6	CO28.1	Learn about the basic concepts related to apparel industry.
			CO28.2	To study about infrastructure and various departments in an apparel industry.
			CO28.3	Gain an insight into the machinery and equipment required for garment production and fabrication- cutting, marker, spreading, special and ordinary sewing machines.
			CO28.4	Have a strong understanding of garment manufacturing process and production.
			CO28.5	Learn about export merchandising, logistics, BOM, warehousing and shipment.

CO AND PSO MAPPING

SEMESTER- I
TEXTILE SCIENCE (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1.1	**2**									
CO1.2		1								
CO1.3					2					
CO1.4	**1**									
CO1.5	**1**									

SEMESTER- I
INTRODUCTION TO FASHION ART (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO2.1	**3**									
CO2.2										**2**
CO2.3	**3**									
CO2.4										**1**
CO2.5										**2**

SEMESTER- I
FUNDAMENTALS OF SEWING TECHNIQUE (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO3.1	**2**									
CO3.2		**1**								
CO3.3	**2**					**2**				
CO3.4		**2**								
CO3.5		**3**								

SEMESTER- I
SURFACE ORNAMENTATION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO4.1	**3**									
CO4.2									1	
CO4.3			**1**							
CO4.4	**2**									
CO4.5	**2**									

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SEMESTER- II
FUNDAMENTALS OF APPAREL PRODUCTION (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO5.1		**3**								
CO5.2	**2**									
CO5.3						**2**				
CO5.4		**3**								
CO5.5	**1**									

SEMESTER- II
INTRODUCTION TO FASHION BUSSINESS (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO6.1	**3**									
CO6.2										**2**
CO6.3			**1**							
CO6.4										**3**
CO6.5										**2**

SEMESTER- II
ELEMENTS OF DESIGN IN FASHION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO7.1	**3**									
CO7.2							**2**			
CO7.3								**3**		
CO7.4							**3**			
CO7.5								**1**		

SEMESTER- II
BASIC PATTERN MAKING AND CONSTRUCTION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO8.1	**2**									
CO8.2		**3**								
CO8.3		**2**								
CO8.4		**2**				**3**				
CO8.5		**3**								

SEMESTER- II
INTERNSHIP -1 (FASHION BOUTIQUE)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO9.1	**3**									
CO9.2	**2**									
CO9.3								**3**		
CO9.4							**2**			
CO9.5								**1**		

SEMESTER- III
MERCHANDISING IN FASHION (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO10.1								**3**		
CO10.2									**2**	
CO10.3							**1**			
CO10.4								**2**		
CO10.5								**1**		

SEMESTER- III
CLOTHING CARE (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO11.1		**2**								
CO11.2					**3**					
CO11.3						**2**				
CO11.4						**1**				
CO11.5					**2**					

SEMESTER- III
WORLD COSTUME- I (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO12.1										**2**
CO12.2									**3**	
CO12.3									**3**	
CO12.4	**1**									
CO12.5									**2**	

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SEMESTER- III
DRAPING (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO13.1	**3**									
CO13.2		**2**								
CO13.3	**2**									
CO13.4		**1**								
CO13.5	**2**									

SEMESTER- III
PATTERN MAKING, CONSTRUCTION AND GRADING BASICS (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO14.1	**3**									
CO14.2		**2**								
CO14.3	**2**									
CO14.4								**1**		
CO14.5			**3**							

SEMESTER- IV
ADVANCED FASHION ILLUSTRATION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO15.1	**2**									
CO15.2		**2**						**1**		
CO15.3			**1**					**3**		
CO15.4	**1**									
CO15.5								**2**		

SEMESTER- IV
WORLD COSTUME- II (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO16.1	**2**									
CO16.2	**2**									
CO16.3			**1**							
CO16.4									**3**	
CO16.5									**3**	

SEMESTER- IV
WOMEN'S WEAR AND KIDS WEAR CONSTRUCTION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO17.1	**2**									
CO17.2		**3**								
CO17.3		**3**								
CO17.4	**1**									
CO17.5						**2**				

SEMESTER- IV
PROJECT- I (ECO-FRIENDLY GARMENT) (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO18.1							**3**			
CO18.2								**2**		
CO18.3							**3**			
CO18.4								**3**		
CO18.5					**1**					

SEMESTER- V
TEXTILE QUALITY ANALYSIS (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO19.1					**2**					
CO19.2					**3**					
CO19.3			**1**							
CO19.4			**2**							
CO19.5					**3**					

SEMESTER- V
CHEMICAL PROCESSING AND FINISHING OF TEXTILES (T)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO20.1					**3**					
CO20.2	**1**									
CO20.3					**2**					
CO20.4					**3**					
CO20.5						**1**				

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SEMESTER- V
MEN'S WEAR AND KIDS WEAR CONSTRUCTION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO21.1	**3**									
CO21.2						**3**				
CO21.3		**2**								
CO21.4						**3**				
CO21.5						**1**				

SEMESTER- V
SOFT FURNISHING (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO22.1	**2**									
CO22.2	**1**									
CO22.3		**2**								
CO22.4		**3**								
CO22.5						**2**				

SEMESTER- V
COMPUTER AIDED DESIGN (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO23.1				**3**						
CO23.2				**3**						
CO23.3										**2**
CO23.4				**2**						
CO23.5	**1**									

SEMESTER- VI
ACCESSORY DESIGN (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO24.1	**2**									
CO24.2		**1**								
CO24.3							**2**			
CO24.4	**1**									
CO24.5	**1**									

SEMESTER- VI
TEXTILE DESIGN (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO25.1	**2**									
CO25.2										**2**
CO25.3					**3**					
CO25.4					**3**					
CO25.5				**2**						

SEMESTER- VI
THEMATIC LINE DEVELOPMENT (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO26.1	**2**									
CO26.2				**3**						
CO26.3				**2**						
CO26.4										**3**
CO26.5							**2**			

SEMESTER- VI
PORTFOLIO PRESENTATION (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO27.1				**2**						
CO27.2							**3**			
CO27.3							**1**			
CO27.4										**2**
CO27.5							**1**			

SEMESTER- VI
INTERNSHIP- III (EXPORT HOUSE) (AOC)

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO28.1		**3**								
CO28.2	**2**									
CO28.3						**2**				
CO28.4		**3**								
CO28.5	**1**									

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EVALUATION STRATEGIES

ASSESSMENT TOOLS

1. CLASS TEST
(SAMPLE INTERNAL EXAM QUESTION PAPER)

ALPHONSA COLLEGE, PALA

B.VOC FASHION TECHNOLOGY

FIRST INTERNAL EXAMINATION- November 2022

SEMESTER- II
FTHG201- FUNDAMENTALS OF APPAREL PRODUCTION

Time: 1 hour Marks: 20

PART- A
(Answer all questions. Each question carries two marks.)

1. What is size structure in clothing industry? (Understanding)(PSO1-CO5.2)
2. What are the different departments of apparel industry? (Remembering)(PSO6-CO5.3)
3. List the sequence of garment production? (Remembering)(PSO2-CO5.4)
4. Why lay pattern is important? (Analyzing)(PSO6-CO5.3)
5. What is the formula for calculating marker efficiency? (Understanding)(PSO6-CO5.3)

PART- B
(Answer any one question. Each question carries 5 marks.)

1. Illustrate a flow chart on organizational structure? (Apply)(PSO2-CO5.1)
2. Discuss in detail about the importance of design in production. (Evaluate) (PSO2-CO5.4)

PART- C
(Answer any one question. Each question carries ten marks.)

1. Explain the different types of cutting machines in detail. (Remembering)(PSO6-CO5.3)
2. Using a Histogram explain the categories of product type in clothing industry? (Evaluate)(PSO1-CO5.3)

2. END SEMESTER EXAM (UNIVERSITY EXAM QUESTION PAPER)

B.Voc DEGREE (CBCS) EXAMINATIONS

Second Semester

FTHG201- FUNDAMENTALS OF APPAREL PRODUCTION

Max. Marks: 80 Time: 3 Hours

Part A

Answer any ten questions. Each question carries 2 marks

1. What is size structure in clothing industry (Understand) PSO1/CO5.1
2. What are staple products in apparel industry? (Remember)PSO1/CO5.2
3. What are the different sectors of textile industry? (Remember) PSO1/CO5.1
4. What is called as a collection plan? (Understand) PSO6/CO5.4
5. List out the different samples used in sampling room of garment industry? (Remember) PSO1/CO5.2
6. Define fusing? (Remember) PSO2/CO5.3
7. What is called as bubbling in fusing operation? (Remember) PSO2/CO5.3
8. What are the basic types of stitches formed in sewing machines? (Remember) PSO2/CO5.3
9. Write a note about double needle lock machine? (Understand) PSO1/CO5.3
10. What is blind stitch sewing machine? (Remember) PSO1/CO5.3
11. Define trimmings? (Remember) PSO6/CO5.5
12. What do you mean by mixed packing? (Remember) PSO2/CO5.5 (10x2= 20)

PART B

Answer any SIX questions. Each question carries 5 marks

13. Write a note on sales in merchandising (Understand) PSO1/CO5.2
14. Discuss in detail about the importance of design in production? (Understand) PSO2/CO5.3
15. Write the difference between desk loom and lab dip? (Remember) PSO6/CO5.3
16. Explain in process inspection? (Understand) PSO2/CO5.5
17. Design and explain methods of spreading? (Create)PSO1/CO5.3

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18. Explain the objectives of cutting? (Understand) PSO1/CO5.3
19. Give a detailed note about advanced cutting equipment's used in apparel industry. (Remember)) PSO2/CO5.2
20. What is pressing and what are its components? (Remember) PSO6/CO5.5
21. Explain the basic machinery and equipment's used for pressing (Understand) PSO6/CO5.5 (6×5-30)

Part C

Answer any two questions. Each question carries 15 marks.

22. Justify the growth of clothing industry? (Evaluate)PSO1/CO5.5
23. How principles of management work in a garment industry? (Analyse) PSO1/CO5.1
24. Discuss the manufacturing cost involved in cutting room. (Understand)) PSO2/CO5.3
25. Give the formula for marker efficiency. Explain markers and marker plans? (Remember)PSO2/CO5.4 (2×15= 30)

3. PRACTICAL (AOC) (SAMPLE FORMAT)

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Theoretical Knowledge					
Lab performance/ punctuality					
Activity and neatness					
Submission of record					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

4. SEMINAR

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average/ Needs improvement
Content					
Presentation					
Use of technology					
Communication					
Interaction and Discussion					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

5. ASSIGNMENT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Experimentation/ data collection					
Skill acquired					
Presentation					
Report					
Punctuality					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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6. VIVA

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Knowledge about the topic					
No of answered questions					
Presentation					
Time taken					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

7. PROJECT/INTERNSHIPS

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
Content					
Methodology and References					
Report					
Punctuality					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

8. FIELD VISIT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Planning					
Involvement					
Interaction					
Report					

Excellent -5 points, Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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B.A. Economics

PROGRAM SPECIFIC OUTCOMES (PSOs)

On successful completion of the BA Economics programme,
the students are able to -

PSO1	Acquire the capability to demonstrate comprehensive knowledge and understanding of the basic concepts and theories of Economics.
PSO2	Understand the theories of development economics, to study real-world economic problems.
PSO3	Get familiarized with statistical tools for economics, understand how to collect and analyse data and use empirical evidence to evaluate the validity of an economic argument, use statistical methodology, interpret statistical results and conduct appropriate statistical analysis of data.
PSO4	Develops an understanding of environmental issues and economic ways for its preservation.
PSO5	Get familiarized with the principles of Micro and, which aids the students to know more about the theoreticalbackground of market structure.
PSO6	Acquire knowledge in econometrics, thus creating an aptitude for scientific research and, expanding skill in the practical application of economic theory, to apply economic analysis to everyday problems.
PSO7	Understands and acquire information about trade theories, and they get to know about the trade relations of the country.
PSO8	Communicate effectively on specific economic issues and present information in a clear and concise manner
PSO9	Students acquire knowledge of the public finance system, thereby enabling them to understand government policies.
PSO10	Provide a well-resourced learning of economics enabling them to be agents of social transformation.

COURSE OUTCOMES (COS)

SEMESTER I				
Course Code	**Course Title**	**Programme Outcomes (PSO)**	**Course Outcome (CO)**	**Course Outcome Statement**
EC1CRT01	Perspectives and Methodology of Economics	PSO1 PSO3 PSO5 PSO6 PSO8 PSO10	CO1	Gain an understanding of broad areas of social science
			CO2	Familiarise the basic terminology and theories prevalent across various disciplines.
			CO3	Understand qualitative and quantitative models within the social sciences, especially Economics
			CO4	Give foundation of various aspects of social science research.
			CO5	Recall the various definitions and methodologies of economics
SEMESTER II				
EC2CRT02	Micro Economic Analysis I	PSO1 PSO5 PSO8 PSO9 PSO10	CO1	Gives afoundation for economic theory analysis
			CO2	Introduces a framework for learning about consumer behaviour and analyzing consumer decisions.
			CO3	Understand firms and their decisions about optimal production.
			CO4	Understan the role of microeconomics in policy formulation in the context of perfect and imperfect markets.
			CO5	Provides an introduction to supply and demand and the basic forces that determine equilibrium in a market economy.

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SEMESTER III				
EC3CRT03	Micro Economic Analysis- II	PSO1 PSO5 PSO8 PS06	CO1	Provide basic understanding of microeconomic concepts.
			CO2	Students are provided with the working and performance of firms in the market.
			CO3	Gain idea ofbehavior of economic agents – consumer, producer, factor owner – price fluctuations in the market.
			CO4	Understand theadvanced theoretical issues and their practical applications of distribution theories.
			Co5	Analyse the behavioural patterns of different economic agents regarding profit, price, cost etc.
EC3CRT04	Economics of Growth and development	PSO1 PSO2 PSO7 PSO8 PSO9 PSO10	CO1	Enables the students to understand the theories and strategies of growth and development.
			CO2	Imparts knowledge about the issues relating to sustainable development, environmental protection and pollution control measures.
			CO3	Gain knowledge of economic development, Theories of economic growth and development
			CO4	Enables the student to get conceptual clarity, strengthens theoretical foundations and develops critical thinking skill.
			CO5	More insightful about modern approaches to development.

SEMESTER IV				
EC4CRT05	Macro Economics 1	PSO1 PSO5 PSO6 PSO8 PSO10	CO1	Fundamental economic ideas and the operation of the economy on a national scale.
			CO2	Gain understanding regarding the cost analysis which seems to be integral to their life.
			CO3	Recall the meaning of inflation and list out the effect of inflation.
			CO4	Gives information regarding the theory of cost, market performance and welfare economics.
			CO5	Aids the students to know more about the theoretical background of economy.
EC4CRT06	Public Economics	PSO1 PSO2 PSO4 PSO8 PSO7 PSO9 PSO10	CO1	Learn the nature, scope and importance of public finance.
			CO2	Gives an understanding of the role of state in fostering the economic activities via budget and fiscal policies.
			CO3	Able to understand the financial position of the country.
			CO4	Understand the debt, fiscal deficit concepts and theory.
			CO5	Understand the fiscal relationship between Central and State Governments.
SEMESTER V				
EC5CRT07	Quantitative techniques	PSO1 PSO3 PSO6 PSO10	CO1	Gain knowledge on collection of primary and secondary data by using questionnaire.
			CO2	Learn diagrammatic ideas on graphs, diagram and charts with various dimensions.
			CO3	Able to calculate the mean, median, mode to apply in research
			CO4	Evaluates the measures of dispersion
			CO5	Understand elementary probability theory including probability distributions

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EC5CRT08	Macro Economics II	PSO1 PSO5 PSO6 PSO8 PSO9 PSO10	CO1	Gain knowledge of theoretical aspects of Macroeconomics.
			CO2	Able to think about issues which are Affecting the economy as a whole.
			CO3	Get familiarized with macroeconomic trends of various variables and the theory behind it.
			CO4	Learn Concepts, measurement and difficulties in calculation of National Income.
			CO5	Evaluate the nature of investment function, capital and money markets – How they are useful to the common man and also to the development of market investments.
EC5CRT09	Environmental Economics	PSO1 PSO2 PSO4 PSO8 PSO9 PSO10	CO1	Imparts an awareness regarding the issues like environment conservation and climate change
			CO2	Undestand the need of environmental protection and its role in economic development.
			CO3	Realise the role of human beings in preserving nature and nurture human values.
			CO4	Able to examine issues in the contemporary environmental discourse from an economists' point of view.
			CO5	Learn to use economc techniques to analyse environmental problems and to assess environmental policies.

EC5CRT10	Introductory Econometrics	PSO1 PSO3 PSO6 PSO10	CO1	Introduces various concepts and application of econometrics.
			CO2	Learn to Construct simple econometric models
			CO3	Helps the students to know the interrelationship between econometric variables.
			CO4	Provides an access to mathematical and econometric methods which are employed for economic measurement.
			CO5	Gain knowledge of Hypothesis testing - defining statistical , simple, composite, null and alternative hypothesis and errors.
SEMESTER VI				
EC5CRT11	Quantitative techniques	PSO1 PSO3 PSO6 PSO10	CO1	Gives an idea on fundamentals of sampling Distribution and inferential statistics
			CO2	Understanding the application of different functions/models and their usefulness in economics.
			CO3	Acquaint with various statistical tools and techniques applied in economis.
			CO4	Use the basic rules of Differentiation and Integration. Demonstrate the rules for calculating integration, describe the importance and application of integration in consumers' and producers' surpluses, total revenue and cost
			CO5	Gain knowledge to calculate and interpret the correlation and Regression between two variables.

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EC6CRT12	International Economics	PSO1 PSO2 PSO5 PSO7 PSO8 PSO9 PSO10	CO1	Gain understanding of theories of international trade
			CO2	Learn the impact of the trade policies on the world economy.
			CO3	Gather Knowledge of the foreign exchange control, BOP and BOT
			CO4	Learn the working of international organization such as WTO, IMF, IBRD etc
			CO5	Understand about the recent trade relations of the country.
EC6CRT13	Money & Financial markets	PSO1 PSO5 PSO7 PSO8 PSO9 PSO10	CO1	Acquaint the students with the changing role of the financial sector of the economy.
			CO2	Understand the concepts and functions of money, supply of money
			CO3	Introduces the students to the functioning of stock markets in India
			CO4	Describe banking concepts, theories and issues in practice, Identify various procedural operations of banking institution
			CO5	Learn the working of money market, banking and financial system
EC6CRT14	Indian Economy	PSO1 PSO2 PSO4 PSO8 PSO9 PSO10	CO1	Come out with Knowledge of Indian economy
			CO2	Understand the structure of Indian economy and Demographic features.
			CO3	Provide knowledge about role of different sectors in Indian economy
			CO4	Study the poverty, unemployment problem and eradication measures
			CO5	Understand the recent economic problems which are crucial for the growth of economy.

EC6CBT1	Mathemattical Economics	PSO1 PSO3 PSO6 PSO8 PSO10	C01	Develop the ability to accurately translate complex economic problems into mathematical models and to solve the problems through a mathematical techniques.
			CO2	Gathers knowledge of Linear Models.
			CO3	Learn to demonstrate the economic applications of differentiation, and use it to formulate economic problems.
			CO4	Improve the mathematical skills PSnecessary to study economics
			CO5	Understand the process of integrating polynomials and its application in consumers "s surplus.
EC6PR01	Project	PSO1 PSO3 PSO6 PSO8 PSO10	CO1	Understand the need and significance of research in social sciences.
			CO2	Getacquittance on various methods of sampling, the data collection techniques through schedules and questionnaires
			CO3	Acquire competence in preparation of schedules, questionnaires and their pre-testing and final preparation.
			CO4	Learndocumentation ,writing and its presentation.
			CO5	Develop the employability skills by acquiring the knowledge about data classification, presentation and research analysis.

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CO AND PSO MAPPING
BA ECONOMICS

COURSE TITLE: Perspectives and Methodology of Economics
COURSE CODE: EC1CRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC1.CO1	3	-	-	-	-	-	-	-	-	-
EC1.CO2	-	-		-	-	-	-	-	-	-
EC1.CO3	-	-	1	-	-	2	-	-	-	-
EC.1.CO4	-	-	-	-	-	-	-	1	-	1
EC.1.CO5	-	-	-	-	3	-	-	-	-	1

MAPPING OF CO AND PSO FOR THE COURSE
"Perspectives and Methodology of Economics"

COURSE TITLE: Micro Economic Analysis 1
COURSE CODE: EC2CRT02

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC2.CO1	3	-	-	-	3	-	-	-	-	1
EC2.CO2	-	-	1	-	2	-	-1	-	-	-
EC2.CO3	-	-	-	-	3	2		-	-	-
EC2.CO4	-	-	1	-	2	-	-	-	1	1
EC2.C05	-	-	-	-	3	-	-	1	-	-

MAPPING OF CO AND PSO FOR THE COURSE
"Micro Economic Analysis 1"

COURSE TITLE: Micro Economic Analysis
IICOURSE CODE: EC3CRT03

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC3.1CO1	3	-	-	-	-	-	-	-	-	-
EC3.1CO2	-	2	-	-	-	-	-	-	-	-
EC3.1CO3	-	-	1	-	-	-	-	-	-	-
EC3.1CO4	-	-	-	3		2	1	-	-	1
EC3.1CO5	-	-	-	-	3	-	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE

"Micro Economic Analysis- II"

COURSE TITLE: ECONOMICS OF GROWTH AND DEVELOPMENT
COURSE CODE:EC3CRT04

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC3.2CO1	3	3	-	-	-	-	-	-	1	-
EC3.2.CO2	-		-	2	-	-	-	-	-	-
EC3.2CO3	-	-	-	-	-	-	1	-	1	-
EC3.2CO4	-	-	-	-	-	-	-	2	-	1
EC3.2CO5	-	-	-	-	-	-	1	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE "ECONOMICS OF GROWTH AND DEVELOPMENT"

COURSE TITLE: Macro Economics 1
COURSE CODE: EC4CRT05

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC4.1.CO1	3	-	-	-	3	1	-	-	-	1
EC4.1.CO2	-	-	1	-	2	-	-	1	-	-
EC4.1.CO3	-	-	-	-	1	-	-	2	-	-
EC4.1.CO4	-	-	-	-	1	-	-		-	1
EC4.1.CO5	-	-	-	-	2	-	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE "Macro Economics 1"

COURSE TITLE: Public Economics
COURSE CODE: EC4CRT06

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC4.2.CO1	3	-	-	-	-	-	-	-	3	1
EC4.2.CO2	-	2	-	2	-	-	-	2	2	-
EC4.2.CO3	-	-	-	-	-	-	2	-	3	-
EC4.2.CO4	-	-	1	-	-	-	-	2	3	1
EC4.2.CO5	-	-	-	-	-	-	-	-	3	1

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MAPPING OF CO AND PSO FOR THE COURSE "Public Economics"

COURSE TITLE: Quantitative Techniques
COURSE CODE: EC5CRT07

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC5.1.CO1	1	-	3	-	-	2	-	-	-	1
EC5.1.CO2	-	-	3	-	-	1	-	-	-	-
EC5.1.CO3	-	-	3	-	-	-	-	-	-	-
EC5.1.CO4	-	-	3	-	-	2	-	1	-	1
EC5.1.CO5	-	-	2	-	-	2	-	-	-	

MAPPING OF CO AND PSO FOR THE COURSE "Quantitative techniques"

COURSE TITLE: Macro Economics II
COURSE CODE: EC5CRT08

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC5.2.CO1	3	-	-	-	3	-	-	-	-	-
EC5.2.CO2	-	-	-	-	2	-	-	-	-	-
EC5.2.CO3	2		-	-	3	-	-	2	-	-
EC5.2.CO4	-	-	-	-	3	-	-	-	2	1
EC5.2.CO5	1	-	-	-	2	-	-	2	-	1

MAPPING OF CO AND PSO FOR THE COURSE "Macro Economics II"

COURSE TITLE: Environmental Economics
COURSE CODE:EC5CRT09

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC5.3.CO1	2	-	-	2	-	-	-	1	-	-
EC5.3.CO2	-	2	-	3	-	-	-	2	-	-
EC5.3.CO3	-	-	-	3	-	-	-	-	-	2
EC5.3.CO4	-	-	-	2	-	-	-	2	1	1
EC5.3CO5	-	-	-	3	-	-	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE
"Environmental Economics"

COURSE TITLE: Introductory Econometrics
COURSE CODE: EC5CRT10

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC5.4.CO1	3	-	2	-	-	3	-	-	-	1
EC5.4.CO2	-	-	2	-	-	3	-	-	-	-
EC5.4.CO3	-	-	2	-	-	3	-	-	-	2
EC5.4CO4	-	-	2	-	-	2	-	-	-	2
EC5.4.CO5	-	-	3	-	-	3	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE
"Introductory Econometrics"

COURSE TITLE: Quantitative techniques
COURSE CODE: EC5CRT11

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.1.CO1	1	-	3	-	-	2	-	-	-	-
EC6.1CO2	-	-	2	-	-	2	-	-	-	1
EC6.1CO3	-	-	3	-	-	2	-	-	-	1
EC6.1.CO4	-	-	2	-	-	3	-	-	-	1
EC6.1.CO5	-	-	3	-	-	2	-	-	-	-

MAPPING OF CO AND PSO FOR THE COURSE
"Quantitative techniques"

COURSE TITLE: International Economics
COURSE CODE: EC6CRT12

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.2.CO1	2	-	-	-	1	-	3	-	-	-
EC6.2.CO2	-	2	-	-	1	-	2	-	-	-
EC6.2.CO3	2	-	-	-	1	-	3	-	1	1
EC6.2.CO4	-	-	-	-	-	-	3	1	-	1
EC6.2.CO5	-	-	-	-	1	-	2	1	-	1

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MAPPING OF CO AND PSO FOR THE COURSE
"International Economics"

COURSE TITLE: Money & Financial markets
COURSE CODE: EC6CRT13

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.3.CO1	3	-	-	-	-	-	-	-	-	1
EC6.3.CO2	-	3	-	-	-	-	-	-	1	-
EC6.3.CO3	-	-	-	-	-	-	1	1	-	1
EC6.3.CO4	-	-	-	-	2	-	-	2	1	1
EC6.3.CO5	-	-	-	-	2	-	-	1	1	1

MAPPING OF CO AND PSO FOR THE COURSE
"Money & Financial markets"

COURSE TITLE: Indian Economy
COURSE CODE: EC6CRT14

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.4.CO1	2	1	-	-	-	-	-	1	-	1
EC6.4.CO2	-	-	-	1	-	-	-	2	-	1
EC6.4.CO3	-	1	-	1	-	-	-	2	1	-
EC6.4.CO4	-	1	-	1	-	-	-	2	1	1
EC6.4.CO5	-	1	-	1	-	-	-	2	1	1

MAPPING OF CO AND PSO FOR THE COURSE "Indian Economy"

COURSE TITLE: Mathematical Economics
COURSE CODE: EC6CBT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.5.CO1	3	-	2	-	-	2	-	1	-	-
EC6.5.CO2	-	-	2	-	-	3	-	-	-	-
EC6.5.CO3	-	-	2	-	-	3	-	2	-	-
EC6.5.CO4	-	-	2	-	-	3	-	-	-	1
EC6.5.CO5	-	-	1	-	-	3	-	1	-	1

MAPPING OF CO AND PSO FOR THE COURSE
"Mathematical Economics"

COURSE TITLE: PROJECT
COURSE CODE: EC6PRT01

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
EC6.6.CO1	3	-	1	-	-	-	-	-	-	-
EC6.6.CO2	1	-	3	-	-	1	-	2	-	1
EC6.6.CO3	1	-	3	-	-	2	-	2	-	1
EC6.6.CO4	-	-	1	-	-	-	-	2	-	1
EC6.6.CO5	-	-	2	-	-	1	-	2	-	2

MAPPING OF CO AND PSO FOR THE COURSE "PROJECT "

B.A. Economics Assessment tools

1. Seminar

Name of the student:

Programme:

Course:

Academic year:

Reg.No.:

	Excellent	Very Good	Good	Average	Below Average
Content					
Presentation					
Technology					
Communication					
Interaction &Discussion					

Excellent	5
Very Good	4
Good	3
Average	2
Below Average	1

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2. Assignment

Name of the student:

Programme:

Course:

Academic year:

Reg.No.:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
content					
Presentation					
Methodology					
Timely submission					

3. COURSE Viva

Name of the student:

Programme:

Course:

Academic year:

Reg.No.:

	Excellent	Very Good	Good	Average	Below Average
Subject knowledge					
Interaction					
Command of language					

4. Project Viva

Name of the student:

Programme:

Course:

Academic year:

Reg.No.:

	Excellent	Very Good	Good	Average	Below Average
Content					
Presentation					
Relevance of the topic					
Quality of analysis					
Interaction &Discussion					

5. INTERNAL EXAMINATION

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INTERNAL EXAMINATION

SEMESTER V BA Economics

ENVIRONMENTAL ECONOMICS (EC5CRT09)

Time : 1 Hr Marks : 20

Part A (Each question carries two marks)
Answer any five

1. Write a short note on Montreal protocol. .(Understand-PSO4/CO1,CO2)
2. Describe the term Net Present Value.(Understand- PSO1/CO5)
3. Define Coase Theorem (Remember- PSO4/CO5)
4. Define Biodiversity (Remember- PSO1/CO1,CO3)
5. What is Public goods and Public bads.(Understand- PS09/CO3) (5×1=5marks)

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Part B. (Each question carries 5 marks)
Answer any Two

6. What are the obstacles in the determination of environmental policy (analyze-PS04/CO4)
7. Explain the quantity based Instruments of environmental policy (analyze- PS04/CO4)
8. What are the criteria for evaluating the environmental policies (Evaluate-PSO4/CO5) (2 × 5 = 10 marks)

Part C. (Each question carries 10 marks)
Answer any One

9. What do you mean by the indicators of Sustainable development? And suggest various policy implications for the sustainable development in Indian context. (create- PSO4/CO3)
10. Discuss the various International environmental agreements and its Importance for protecting environment. (Evaluate- PSO4/CO5) (1 × 10 = 10 marks)

6. SEMESTER END EXAMINATION

ALPHONSA COLLEGE PALA

SEMESTER ENDEXAMINATION

SEMESTER VI BA Economics
International Economics

Time : 3 Hr **Marks : 80**

Part A

Answer any ten questions. Each question carries 2 marks

1. What is meant by intra-industry trade?.(Understand-PSO1/CO1)
2. Explain offer curves..(Understand-PS01/CO1)
3. Write a note on Leontief's Paradox..(Understand-PS07/CO1)
4. List out the static and dynamic gains in trade.(Remember- PS07/CO5)
5. Define the Balance of Trade.(Remember-PSO1/CO3)
6. Explain exchange control..(Understand- PSO1/CO3)

7. Define Foreign Exchange Market..(Remember-PSO7-CO3)
8. Distinguish between Fixed v/s floating exchange rate systems.(Understand-PSO7/CO3)
9. Define Foreign Exchange Options.(Remember-PSO1/CO3)
10. What is Free Trade?.(Understand-PS01/CO5)
11. Define specific tariffs.(Remember-PSO1/CO3)
12. Differentiate between import quota and export quota..(Understand-PSO1/CO2)

Part B

Answer any six questions Each question carries 5 marks

13. What are the advantages and disadvantages of international trade?(analyze-PS07/CO1)
14, Explain the factors influencing terms of trade(.Analyze-PS07/CO3)
15. Make an assessment of the impact of Exchange control on BOP?.(Evaluate-PS07/CO3)
16. What are the effects of devaluation on BOP?.(Evaluate-PS07/CO4
17. Explain the factors influencing the exchange rates(.Analyze-PS07/CO5
18. Explain in detail the Balance of Payment Theory..(analyze-PSO7/CO3)
19. Explain the Exchange Rate System in India..(analyze-PS07/CO3)
20. Suggest ways to correct disequilibrium in BOP .(create-PS07/CO3)
21. What were the reasons for the downfall of GATT and the origin of WTO?(Evaluate-PSO7/CO4)

Part C

Answer any two questions. Each question carries 15 marks

22. Critically analyse the absolute cost advantage theory of international trade(. Analyze-PSO7/CO1)
23. Explain the elasticity approach of devaluation based on Marshal Lerner'scondition. (analyze-PSO7/CO2)
24. Explain the non-tariff barriers.(analyze-PSO7/CO2)
25. Comment on the relationship between IMF and India.(Evaluate-PS07/CO4)

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B.A. History - Model 1
PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Familiarize with the latest developments in the subject of History making it practically relevant as a knowledge system
PSO2	Understands the various issues and trends in the society at local, national and global level
PSO3	Demonstrates thinking skills by analyzing, synthesizing, and evaluating historical information from multiple sources.
PSO4	Develops the ability to distinguish between facts and fiction while understanding that there is no one historical truth.
PSO5	Produce well researched written work that engages with both primary sources and the secondary literature
PSO6	Develop an informed familiarity with multiple cultures
PSO7	Employs a full range of techniques and methods used to gain historical knowledge
PSO8	Access to proper methods of articulation and presentation in tune with the changing needs and requirements
PSO9	Demonstrates their understanding of cause and effect along with their knowledge of the general chronology of human experience.
PSO10	Creating a knowledge in traditional cultural values and broader global understanding

SEMESTER I				
Course Code	**Course Title**			**Course Outcomes (CO)**
HY1CR01	Methodology & Perspectives of Social Sciences	PSO1 PSO4 PSO5 PSO7	CO1	Identify broad areas of Social Science subjects
			CO2	Understand the techniques of writing history
			CO3	Learn various schools of thoughts in history
			CO4	Articulate the basic terminology and theories prevalent across disciplines
			CO5	Apply the methods and theories of social science to contemporary issues.
SEMESTER II				
HY2CRT02	Understanding Early India: From Hunting Gathers to Land Grants	PSO2 PSO3 PSO4 PSO5 PSO6 PS10	CO1	Understand the pre-historic cultures in ancient India
			CO2	Learn various social formations in ancient India
			CO3	Study about the socio-economic evolution of Indian culture.
			CO4	Perceive influence of political support on religion
			CO5	Understand emergence of feudal system in Indian society.
SEMESTER III				
HY3CRT03	Polity Society and Economy in Pre-colonial India	PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Study various sources for the reconstruction of the Indian past
			CO2	Learn the nature and character of ancient and medieval Indian society and culture
			CO3	Understand the production relations and social structures in Medieval India
			CO4	Comprehend the basic features of Mansabdari & change in it during 17th century
			CO5	Grasp territorial expansion of Sultanate and Mughal empire

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HY3CRT04	Cultural Trends in Pre - Colonial Kerala	PSO2 PSO3 PSO4 PSO9 PSO10	CO1	Learn the physiographic features of Kerala and its impacts on society and culture
			CO2	Understand the features of economy and society in pre-colonial Kerala
			CO3	Learn the development of a caste structured society in Kerala.
			CO4	Map thirty two Brahmin settlements in Kerala
			CO5	Appreciate agriculture and trading society in Kerala
SEMESTER IV				
HY4CRT05	Making of Modern Kerala	PSO2 PSO3 PSO4 PSO9 PSO10	CO1	Learn the socio-economic making of modern Kerala
			CO2	Understand the colonial background of modern Kerala
			CO3	Study colonial and anti-colonial struggles in Kerala
			CO4	Examine formation of Kerala state
			CO5	Understand contemporary situation of Kerala
HY4CRT06	Researching the Past	PSO1 PSO4 PSO5 PSO7	CO1	Study the basic concepts in Historical research.
			CO2	Study various sources of history writing.
			CO3	Learn the methods and techniques of research.
			CO4	Know the basics in Historical method
			CO5	Understand Historiography through ages
SEMESTER V				
HY5CRT07	Inheritance and Departures in Historiography	PSO1 PSO4 PSO5 PSO7	CO1	Learn the early notions of History
			CO2	Learn and identify the different schools of thought in History
			CO3	Study recent trends in historical writing.
			CO4	Identify history of totality and emotions
			CO5	Analyze western empiricism

HY5CRT08	India: Nation in the Making	PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Study the nature and character of colonization in India.
			CO2	Identify the various schools of thought emerged in modern Indian historical writing.
			CO3	Learn the various facets of Indian nationalism
			CO4	Understand the evolutionary processes of constitutional developments.
			CO5	Distinguish the detail account of British raj as well as its overall impacts on the Indian society.
HY5CRT09	Society in A ncient and Medieval World	PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Basic understanding of the pre-historic cultures of the ancient and medieval world
			CO2	Learn about the technological advancement of ancient civilizations.
			CO3	Study the social formation and material culture of ancient civilizations
			CO4	Evaluate Greco Roman classical civilization.
			CO5	Understand societies in central Islamic world
HY5CRT10	Environmental Studies & Human Rights in Historical Outline	PSO1 PSO2 PSO3	CO1	Learn the significance, need, and value of environmental studies and human rights issues.
			CO2	Develop a basic understanding of environmental issues and sustainable development.
			CO3	Become aware of various environmental and human rights struggles all over the world.
			CO4	Analyze conservation of natural resources and human rights
			CO5	Understand social issues and the environment

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HY5OCT01	Open Course Introducing Environmental History	PSO1 PSO2 PSO3	CO1	Acquire basic knowledge about environmental history.
			CO2	Develop awareness about environmental issues
			CO3	Learn about the environmental movements and protests in India
			CO4	Understand our biodiversity and its conservation
			CO5	Identify multidisciplinary nature of environmental studies
SEMESTER VI				
HY6CRT11	Making of Cotemporary India	PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Learn the major problems of independent India
			CO2	Study the growth of Indian economy in the post- colonial era
			CO3	Learn how India tackled the socio-economic problems in the independent era.
			CO4	Understand caste and communalism
			CO5	Identify tribe and tribal movements
HY6CRT12	Understanding Modern World	PSO1 PSO2 PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Study the world in the early decades of the twentieth century.
			CO2	Learn various socio-political developments in the interwar period.
			CO3	Understand power politics and development of third world countries.
			CO4	Understand the fascism and the rise of dictatorship in Europe
			CO5	Explain the aftermaths of the World War II on the world politics.
HY6CRT13	Capitalism and Colonialism	PSO1 PSO2 PSO3 PSO4 PSO6 PSO8 PSO10	CO1	Study various theories and debates on the transition from feudalism to capitalism
			CO2	Learn the expansion of capitalism as a world system.
			CO3	Study the making of colonies and colonial relations and the impact thereof.
			CO4	Knowledge in the growth of monopoly capitalism under colonialism
			CO5	Capacity to situate the state of capitalist societies in the post colonial era.

HY6CR14	Gender in Indian Perspectives	PSO2 PSO3 PSO6	CO1	Learn an alternative method of Historical writing from women's perspective.
			CO2	Understand the social construction of gender.
			CO3	Study gender history of India and the modern construction of gender in India
			CO4	Analyze politics of gender
			CO5	Identify gender resistance movement
HY6CBT01	Archaeology in India	PSO1 PSO7 PSO9 PSO10	CO1	Learn archaeology as a supplement to historical writing
			CO2	Study methods and techniques of archaeological
			CO3	Learn important archaeological sites in India.
			CO4	Understand history of Archaeology in India
			CO5	Understand Archaeology and its relation with other subjects
	Project	PSO3 PSO5 PSO7	CO1	Practice in doing research in history
			CO2	Learn the skill to write history
			CO3	Study various sources of history writing.
			CO4	Equip with the skill of interviewing
			CO5	Ability of data analysing

PSOs and COs mapping

The various correlation levels for the measurement of COs and POs mapping is measured in four scale:
'-'is No Correlation, 1 is Slight Correlation, 2 is Moderate Correlation and 3 is Substantial Correlation. The format for CO and PO mapping as follows:

Semester 1
Methodology and Perspectives of social sciences- History

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	1	-	-	-	-	-	-	-
CO2	-	-	-	-	2	-	3	-	-	-
CO3	2	-	3	-	-	-	1	-	-	-
CO4	2	-	-	-	-	-	1	-	-	-
CO5	-	-	3	2	-	-	-	-	-	-

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Semester 2
Understanding Early India: from hunting gatherers to land grants

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	2	-	-	-	1	-	-	-	-
CO2	-	-	-	1	-	-	-	-	3	-
CO3	-	-	3	-	-	3	-	-	-	-
CO4	-	-	-	-	-	-	-	1	-	2
CO5	-	3	-	-	-	-	-	-	1	-

Semester 3
Polity and Society in pre colonial India

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	-	1	-	-	-	2	-	-	-
CO2	-	2	-	-	-	3	-	-	-	-
CO3	-	1	2	-	-		-	-	-	-
CO4	-	-	-	-	-	1	-	-	2	-
CO5	-	-	-	2	-	-	-	1	-	-

Cultural trends in pre colonial Kerala

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	-	1	-	-	-	1	-	-	-
CO2	-	3	-	-	-	-	-	-	2	-
CO3	-	2	-	3	-	-	-	-	-	-
CO4	-	-	2	-	-	-	3	-	-	-
CO5	-	-	-	-	-	2	-	-	-	3

Semester 4
Making of modern Kerala

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	3	1	-	-	-	-	-	-	-
CO2	-	3	-	-	-	2	-	-	-	-
CO3	-	-	-	3	-	-	-	1	-	-
CO4	2	-	-	-	-	2	-	-	-	-
CO5	-	3	-	-	-	-	-	-	-	2

Researching the past

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	2	-	-	-	-	-	-	-
CO2	-	-	-	-	3	-	-	-	2	-
CO3	-	-	-	1	-	-	3	-	-	-
CO4	-	-	-	-	2	-	2	-	-	-
CO5	-	-	-	-	-	-	2	1	-	-

Semester 5
Inheritance and departures in Historiography

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	-	3	-	-	-	-	1	-	-
CO2	-	-	-	-	-	-	2	-	1	-
CO3	3	-	-	-	-	-	2	-	-	-
CO4	-	-	3	-	-	-	-	-	2	-
CO5	-	-	-	2	-	-	-	3	-	-

India: Nation in the Making

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	3	-	-	-	-	-	-	2	-
CO2	-	-	2	-	-	-	1	-	-	-
CO3	-	-		3	-	-	-	2	-	-
CO4	-	-	1	-	-	-	-	-	3	-
CO5	-	-	-	2	-	3	-	-	-	1

State and Societies in Ancient and Medieval World

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	1	-	-	-	3	-	-		-
CO2	-	-	1	-	-	-		-	2	-
CO3	-	2			-	3	-		-	-
CO4	-	-		-	-	3	-	-	1	-
CO5	-	-	-		-	3	2	-	-	-

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Environmental studies and Human Rights in Historical Out line

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	-	-	-	-	-	-	-	1
CO2	-	3	2	-	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	3	-	1
CO4	3	-	-	-	-	-	-	-		2
CO5	-	3	-	-	-	-	1	-	-	-

Open course – Introducing Environmental History

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	-	-	-	-	2	-	-	-
CO2	-	3	-	1	-	-	-	-	-	-
CO3	-	-	-	-	-	-	-	2	-	1
CO4	1	-	-	-	-	-	-	-	2	-
CO5	1	-	-	-	-	-	-	2	-	-

Semester 6

Making of contemporary India

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	3	-	-	-	-	-	1	-	-
CO2	3		-	-	-	-	-	-	2	-
CO3	-	2	-	-	-	-	-	-	-	3
CO4	-	-	3	-	-	-	-	-	2	-
CO5	-	1	-	-	-	3	-	-	-	-

Understanding Modern World

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	-	-	-	-	3	-	-	2	-
CO2	-	2	-	-	-	-	1	-	-	-
CO3	-	-	-	1	-	-	-	2	-	-
CO4	-	-	1	2	-	-	-	-	-	-
CO5	-	3	-	-	-	-	1	-	-	-

Capitalism and Colonialism

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	-	-	-	-	1	-	-	-
CO2	-	3	-	-	-	-	-	-	2	-
CO3	-	-	-	-	-	2	-	-	3	-
CO4	-	-	2	-	-	-	-	-	-	1
CO5	-	-	1	2	-	-	-	-	-	-

Gender in Indian Perspectives

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	2	-	-	-	-	-	-	-	-
CO2	-	-	-	2	-	-	-	3	-	-
CO3	-	-	-	-	-	2	-	-	-	2
CO4	-	-	-	-	-	-	-	1	3	-
CO5	-	3	-	-	-	-	-	-	-	1

Archaeology in India

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	3	-	-	-	-	-	3	-	-	-
CO2	-	-	-	-	3	-	2	-	-	-
CO3	-	-	-	-	-	3	-	-	2	-
CO4	3	-	-	-	2	-	-	-	-	-
CO5	-	-	3	-	-	-	-	2	-	-

Project

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10
CO1	-	-	-	-	3	-	2	-	-	-
CO2	-	-	3	2	-	-		-	-	-
CO3	-	-	-	-	3	-	3	-	-	-
CO4	-	-	-	2	-	-	-	1	-	-
CO5	-	-	3	-	-	-	2	-	-	-

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Assessment Tools

Name of the Student

Programme

Course

Academic year

Reg. No

Grading

Excellent	5
Very good	4
Good	3
Average	2

1. **Internal Exam** -20 marks
2. **End Semester Exam** – 80 marks
3. **Seminar**

	Excellent	Very Good	Good	Average
Content				
Presentation				
Use of Technology				
Communication				
Interaction and Discussion				

4. **Assignment**

	Excellent	Very Good	Good	Average
Relevance of the topic				
Content				
Presentation				
Methodology				
Final Submission				

5. **Subject Viva**

	Excellent	Very Good	Good	Average
Subject				
Knowledge				
Communication				
Presentation				

6. **Project Viva**

	Excellent	Very Good	Good	Average
Subject				
Knowledge				
Communication				
Presentation				

7. **Field Study**

	Excellent	Very Good	Good	Average
Subject				
Observance				
Interaction and discussion				
knowledge				
Final report				

8. **Reflective Journal**

Sl. No	Date	Content Outline	Learning Strategy	Reflections	Remarks of teacher
1					
2					
3					
4					

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END SEMESTER EXAMINATION (SAMPLE)

ALPHONSA COLLEGE, PALA

BA HISTORY EXAMINATION, MARCH 2022

SEMESTER 3

HY3CRT03 POLITY, SOCIETY AND ECONOMY IN PRE COLONIAL INDIA

Time: 3 hrs Max Marks: 80

Part A
Answer any ten questions. Each question carries 2 marks.

1. Name two significant works of ZiauddinBarani. (Remembering) (PSO3, CO1)
2. Difference between Zakat and Jizia.(Understanding) (PSO8, CO3)
3. Write about Nayankara System. (Applying) (PSO2, CO4)
4. Explain Mansabdari System. (Analyzing) (PSO7, CO4)
5. Define Batai System (Remembering) (PSO10, CO3)
6. Distinguish between Tanka and Jital. (Evaluating) (PSO3, CO2)
7. Write four pillars of AlauddinKhilji's administrative system. (Remembering) (PSO7, CO2)
8. Write notes on sultana Raziya. (Understanding) (PSO4, CO2)
9. Who were Khiljis? (Remembering) (PSO6, CO2)
10. State the main characteristics of the market control policy of Ala – Ud – Din Khilji? (Applying) (PSO9, CO3)
11. Estimate Firoz Tughlaq? (Analysing) (PSO3, CO2)
12. Write two effects of Bhakti Movement. (Analyzing) (PSO10, CO3)

10x2=20

Part B
Answer any six questions. Each question carries 5 marks.

13. Bring out the major primary sources for reconstructing medieval Indian history. (Remembering) (PSO5, CO1)
14. Discuss the significance and impact of saint Kabir's teachings. (Understanding) (PSO3, CO2)

15. Describe the role of Qutub –Ud- Din –Aibek in foundation of Delhi Sultanate. (Remembering) (PSO4, CO5)
16. Differentiate chauth and sardeshmukhi. (Understanding) (PSO9,CO3)
17. Explain the evolution of Indo - Islamic culture and its influence on Indian society. (Analyzing) (PSO8, CO2)
18. Critically evaluate various causes for the decline of the Mughal Empire. (Evaluating) (PSO2, CO5)
19. Evaluate the administrative policies of Babur. (Evaluating) (PSO1, CO2)
20. What were the causes for the rivalry between Vijayanagara Empire and Bahmani sultanate? (Understanding) (PSO9, CO2)
21. Write two important developments in paintings under Jahangir. (Applying) (PSO7, CO1) 6x5=30

Part C

Answer any two questions. Each question carries 15 marks

1. Trace the economic, social and cultural condition of Vijayanagar Empire. (Understanding) (PSO2, CO2)
2. Assess the role of Shivaji in the foundation of Swarajya. (Evaluating) (PSO10, CO3)
3. Write in detail about Sher Shah's administrative reforms.(Applying) (PSO4, CO2)
4. Critically examine the position of women in the Delhi Sultanate.(Evaluating) (PSO6, CO3) 2x15=30

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ALPHONSA COLLEGE PALA

FIRST INTERNAL EXAMINATION

SEMESTER III HISTORY

HY3CRT04 CULTURAL TRENDS IN PRE COLONIAL KERALA

Time: 1 Hour Marks: 20

Part A

Answer any two questions. Each question carries 2 marks

1. Who was Sankaracharya? (Remembering) (PSO8, CO3)
2. What is Jati? (Understanding) (PSO2, CO2)
3. Name two SandeshaKavyas (Remembering) (PSO 10, CO3)
4. What is a Menhir? (Understanding) (PSO5, CO2) 2x2=4

Part B

Answer any one question

5. Megalithic cultures of Kerala coincide with Iron Age culture. Discuss (Applying) (PSO3, CO5)
6. Trace the evolution and growth of Manipravalam literature. (Analyzing) (PSO6,CO4) 1x6=6

Part C

Answer any one question

7. Critically evaluate the legal practices of medieval Kerala. (Evaluate) (PSO9, CO2)
8. Estimate the importance of the folklore and oral traditions for reconstructing Kerala History. (Analyzing) (PSO7, CO1) 1x10=10

M.A. Political Science
PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO 1	Demonstrate knowledge and understanding of the key theories and concepts of Political Science.
PSO 2	Apply appropriate theories to understand and analyze social and political phenomena.
PSO 3	Develops the ability to evaluate political institutions, processes, and issues relating to politics at the local, national, and international levels that fosters a spirit of patriotism.
PSO 4	Demonstrate the intellectual ability and skills to execute and implement independent research.
PSO 5	Understands the prerequisites for effective and just administration at different levels by focusing on the structures and processes of systems of governance.
PSO 6	Apply critical thinking, communication, and analytical skills to detect, differentiate and address significant issues in society that will enable them to be self–reliant.
PSO 7	Understands issues of social justice and classify them in their local and global contexts and arrive at some conclusions on possible remedies and inculcate a Human Rights culture.
PSO 8	Demonstrate knowledge and understanding of their rights and obligations as members of society which will enable the molding of noble women and their Empowerment

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COURSE OUTCOMES

Course Code	Course Title	PSO	Course Outcome	
PS010101	Political Theory	PSO1 PSO2 PSO3	CO1	Understands major theoretical traditions and debates in political science.
			CO2	Analyze important approaches, theories, ideologies and concepts.
			CO3	Evaluates the significance of theories and concepts in understanding contemporary politics.
			CO4	will be equipped with a critical perspective and analytical skills to understand contemporary political issues and challenges.
PS010102	Western Political Thought: Ancient And Medieval Traditions	PSO1 PSO2 PSO6	CO1	understands the ancient and medieval traditions of Western Political Thought.
			CO2	Familiarize with epistemological foundations of ancient and medieval Western philosophy with a view to generating interest in classical texts.
			CO3	Acquainting with the classics of Western political thought in a spatial and temporal framework.
			CO4	demonstrate knowledge of significant political ideas from the time of the Greek City-states to Renaissance Europe.
PS010103	Indian Constitution And Polity	PSO3 PSO5 PSO8	CO1	familiarise students with the philosophical underpinnings of the Constitution of India and its historical antecedents.
			CO2	critical understanding of the structure, institutions, and processes of the Indian political system.
			CO3	demonstrate critical insights into the Indian Constitution – its historical development, ideological perspectives and core values
			CO4	Identifies the different organs of government and some of the major cases and amendments relating to the Constitution.

PS010104	Theories And Concepts of Public Administration	PSO1 PSO3 PSO5	CO1	offer a theoretical and conceptual understanding of Public Administration.
			CO2	promote an understanding of welfare administration at different levels.
			CO3	Understands about personnel administration and skills are obtained to apply their knowledge in practical life.
			CO4	explain and analyse budgetary processes and financial administration.

Course Code	Course Title	PSO	Course Outcome	
PS010105	Research Methodology In Political Science	PSO1 PSO2 PSO4	CO1	Understands various research methods in social sciences.
			CO2	explains various theories and concepts that are part of the research methodology
			CO3	Familiarize with new trends in research in Political Science
			CO4	Apply both quantitative and qualitative research techniques.

Semester II

Course Code	Course Title	PSO	Course Outcome	
PS010201	Political Sociology		CO1	Understands the underlying forces that have their impact on political and social change.
			CO2	Analyse different approaches to the study of political sociology, the social basis of political power, and the nature of state and civil society.
			CO3	analyze the relationship between society and politics, as well as the inter-relationships between individuals, groups, institutions, governments, and their socioeconomic and political environments
			CO4	demonstrate knowledge of the basic forces and factors that shape the world.

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PS010202	Western Political Thought: Modern Traditions	PSO1 PSO2 PSO6	CO1	Understands various categories of philosophies, theories and ideologies in the modern world.
			CO2	equip students to develop their own notions of socio-political issues.
			CO3	provide a basic philosophical foundation of the state.
			CO4	demonstrate the ability to identify the dominant political discourses on various political philosophies in a critical perspective.
PS010203	Issues In Indian Politics	PSO6 PSO7 PSO8	CO1	provide an understanding of contemporary social and political forces and practices, and their historical underpinnings in India.
			CO2	instills a wider understanding of rights, obligations and state-society dynamics.
			CO3	demonstrate an understanding of the potentials and limits of democratic practices through insights derived from studying specific issues and themes.
			CO4	analyze the complex nature of state-society relations through their understanding of how social forces are constituted and function in relation to each other in the context of India.
PS010204	Indian Administration	PSO5 PSO6 PSO7 PSO8	CO1	Understands various aspects of public administration in India.
			CO2	familiarizes students with the different methods of administration and basic administrative structures in India.
			CO3	analyse decentralized planning and development.
			CO4	explain contemporary issues and challenges in the implementation of decentralised governance and development.

PS010205	Theoretical Foundations of International Relations	PSO5 PSO6 PSO7	CO1	Understands various theoretical traditions in International Relations.
			CO2	understanding of some of the key concepts in the realm of International Relations.
			CO3	appreciates the significance of theorizing international relations.
			CO4	apply conceptual tools to understand, analyse and interpret events and processes in contemporary international politics.

SEMESTER III

Course Code	Course Title	PSO	Course Outcome	
PS010301	Human Rights	PSO6 PSO7 PSO8	CO1	Understands the concept of humanrights and the different approaches to it.
			CO2	Identifies the international initiatives to protect andpromote human rights,
			CO3	demonstrate atheoretical as well as practical understanding of human rights.
			CO4	analyse contemporary issues from a rights perspective and will be aware oftheinstitutional mechanisms fortheprotection ofhuman rights.

Course Code	Course Title	PSO	Course Outcome	
PS010302	Political Thought: Indian Tradition	PSO3 PSO6	CO1	Understand contemporary Indian society andpolitics.
			CO2	comprehendthewidespectrumofIndian traditionsin political thoughtfrom ancient times.
			CO3	detailed Indian philosophical base is provided
			CO4	introduce students to the rudiments of Indian political thought

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Course Code	Course Title	PSO	Course Outcome	
PS010303	State, Society And Polity In Kerala	PSO3 PSO5 PSO6 PSO8	CO1	create an in-depth understanding of modem Kerala, itssociety, polity and economy.
			CO2	to provide a detailed account of theevolutionofsocio-politicalprocesses,socialandpoliticalmovements,governmentalactions, etc. that led to the formation of present day Kerala
			CO3	gives a comprehensive analysis of Kerala economy, its contemporary challenges and the problems faced by some of the important sections of the state.
			CO4	equip students withthenecessaryskills to analysekeyissues in Keralapolitics andsociety.
Course Code	Course Title	PSO	Course Outcome	
PS010304	Comparative Politics	PSO1 PSO2 PSO3	CO1	Understands the fundamental concepts and principlesof comparative politics
			CO2	Recognize the relevance of Comparative Politics in the field ofpoliticalinquiry.
			CO3	Familiarize with a wide range of existing and emerging issues and processes in comparativepolitics.
			CO4	describe the basic approaches, themes and concepts that are used in comparative politics;
Course Code	Course Title	PSO	Course Outcome	
PS010305	Issues In International Politics	PSO2 PSO3 PSO7	CO1	Understands dominant features and concerns of the contemporary global system.
			CO2	Discusses arrange of them es in international politics with a view to develop critical insights on contemporary questions.
			CO3	demonstrate knowledge and understanding of contemporary international politics
			CO4	analyse and explain contemporary international phenomena.

SEMESTER IV

Course Code	Course Title	PSO	Course Outcome	
PS 010401	Politics of Social Justice In India	PSO5 PSO6 PSO7 PSO8	CO1	familiarise with the theory and practice ofsocial justice focusing on the case of India.
			CO2	Addresses the issues of social justice ofmarginalised groups in India.
			CO3	Analyses the notion of social justice asstipulated in the Constitution of India.
			CO4	inculcate a sense of justice andhumanevalues amongstudents.
Course Code	Course Title	PSO	Course Outcome	
PS 010402	INDIA'S FOREIGN POLICY	PSO3 PSO4	CO1	Understands the fundamentals of India‟s foreign policy–the theoretical, institutional and practical aspects.
			CO2	Understands the fundamentals of India‟s foreign policy–the theoretical, institutional and practical aspects.
			CO3	critically evaluateIndia‟s foreign policy and its engagements with the international system.
			CO4	critically identify and discuss the changing contours and key issues surrounding the history and development of India‟s foreign policy.
Course Code	Course Title	PSO	Course Outcome	
PS 800401	Environment And Politics	PSO3 PSO4 PSO5 PSO6	CO1	Understands various theoretical and conceptual insights into issues relating to environment and politics
			CO2	Identifies various structures, processes and policies both at national and internationallevelsforthe protectionofthe environment.
			CO3	critically evaluate global anddomestic policies towards the protection of the environment and natural resources.
			CO4	discuss and think about solutions to global environmental problems and challenges

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Course Code	Course Title	PSO	Course Outcome	
PS 800402	Political Thought: Gandhian Tradition	PSO4 PSO8	CO1	Understands the importance of Gandhian thought in contemporary times, focusing on themes such as power, democracy, development, peace and conflict resolution.
			CO2	Understand MahatmaGandhi– hislifeandphilosophy.
			CO3	understand how the contemporary world order is„ governed," as well as the limits toglobal governance.
			CO4	Recognize the relevance of Non – Violence
Course Code	Course Title	PSO	Course Outcome	
PS 800403	United Nations: Peace and Global Goverance	PSO3 PSO6 PSO8	CO1	Understands the role of the United Nations in peace and global governance
			CO2	Understand the United Nations - its historical foundations, politicsandprocesses in thedifferent areas of policyandgovernance.
			CO3	understand how the contemporary world order is „governed," as well as the limits toglobal governance..
			CO4	critically evaluate key issues pertainingtothefunctioningof theUnited Nations.

CO AND PSO MAPPING

M.A. POLITICAL SCIENCE – Semester I
PS010101 – Political Theory

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1.S1.1	3	-	-	-	-	-	-	-
CO2.S1.1	-	3	-	-		-	-	-
CO3.S1.1	-	-	3	-		-	-	-
CO4.S1.1	1	-	-					

PS010102- Western Political Thought: Ancient And Medieval Traditions

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S1.2	3							
CO2.S1.2								
CO3.S1.2		2						3
CO4.S1.2								

PS010103- Indian Constitution and Polity

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S1.3								
CO2.S1.3					3			
CO3.S1.3			2					3
CO4.S1.3								

PS010104 - Theories and Concepts of Public Administration

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S1.4	2							
CO2.S1.4			2		3			
CO3.S1.4								
CO4.S1.4								

PS010105 - Research Methodology in Political Science

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S1.5				3				
CO2.S1.5				3				
CO3.S1.5				3				
CO4.S1.5				3				

Semester II

PS010201 - Political Sociology

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S2.1								
CO2.S2.1		2						
CO3.S2.1			2			2		
CO4.S2.1								

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PS010202 - Western Political Thought: Modern Traditions

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S2.2	3							
CO2.S2.2		2						
CO3.S2.2								
CO4.S2.2						3		

PS010203 - Issues in Indian Politics

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S2.3								
CO2.S2.3								3
CO3.S2.3						3	2	
CO4.S2.3								

PS010204 - Indian Administration

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S2.4					3		2	
CO2.S2.4								
CO3.S2.4								
CO4.S2.4						3		2

PS010205 - Theoretical Foundations of International Relations

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S2.5								
CO2.S2.5						2		
CO3.S2.5								
CO4.S2.5					3			2

Semester III

PS010301 - Human Rights

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S3.1							2	
CO2.S3.1							2	
CO3.S3.1						2	2	
CO4.S3.1							3	

PS010302 - Political Thought: Indian Tradition

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S3.2			3					
CO2.S3.2								
CO3.S3.2						2		
CO4.S3.2								

PS010303 -State, Society and Polity in Kerala

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S3.3	3							
CO2.S3.3					3			
CO3.S3.3						2		
CO4.S3.3								2

PS010304 - Comparative Politics

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S3.4	3							
CO2.S3.4								
CO3.S3.4			2					
CO4.S3.4		3						

PS010305 - Issues in International Politics

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S3.5								
CO2.S3.5		2						
CO3.S3.5			3					
CO4.S3.5							3	

Semester IV

PS010401 - Politics of Social Justice in India

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S4.1					3			
CO2.S4.1						3		
CO3.S4.1								
CO4.S4.1							3	3

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PS010402 - INDIA'S FOREIGN POLICY

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S4.2			3					
CO2.S4.2			2					
CO3.S4.2				3				
CO4.S4.2				2				

PS800401 - Environment and Politics

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S4.EI								
CO2.S4.E1			3		2			
CO3.S4.E1				2		3		
CO4.S4.E1				3		2		

PS800402 - Political Thought: Gandhian Tradition

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S4.E2								3
CO2.S4.E2								3
CO3.S4.E2				3				
CO4.S4.E2								2

PS800403 - United Nations: Peace and Global Goverance

	PS01	PS02	PS03	PS04	PS05	PS06	PS07	PS08
CO1.S4.E3								2
CO2.S4.E3								
CO3.S4.E3			3					
CO4.S4.E3						3		

ASSESSMENT TOOLS

1. END SEMESTER EXAMINATION (SAMPLE)

M.A Degree (C.S.S) Examination

First Semester
Faculty of Social Sciences

PS010104 – Theories and Concepts of Public Administration

(2019 Admission Onwards)

Time:Three hours Max. Weight: 30

Section- A
(Answer any eight questions. Each question carries a weight of 1)

1. Define the concept of Integral View.(Remember- PSO1/ CO1)
2. What is New Public Administration? (Remember- PSO1/ CO1)
3. Discuss the role of delegation in administration?(Evaluate – PSO5/ CO3)
4. Differentiate between Line and Staff Agencies. (Understand- PSO5/CO3)
5. What is the meaning of Development Administration.(Remember-PSO1/ CO1)
6. Analyse the concept of permanent executive in the context of India. (Analyse-PSO3/CO3)
7. Distinguish between Public and Private Administration. (Understand- PSO1/ CO1)
8. Critically evaluate the performance budgeting. (Evaluate-PSO5/CO4)
9. Define Unity of Command.(Remember-PSO1/CO1)
10. Evaluate the utility of in-service training(Evaluate- PSO5/CO3). **(8 x 1 = 8)**

Section B
(Answer any six questions. Each question carries a weight of 2)

11. Briefly explain the politics-administration dichotomy.(Understand-PSO1/CO1)
12. Differentiate between the accountability and transparency. (Understand- PSO3/ CO2)
13. Briefly examine the Human Relation theory propounded by Mayo.(Analyse-PSO1/CO1)
14. Critically examine New Public Management(Evaluate- PSO1/CO1)

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15. Analyse the bases of organization. (Analyse- PSO1/CO3)
16. Differentiate between case method approach and public choice approach (Understand- PSO1/CO1).
17. Briefly explain the relevance of morale and discipline in an efficient organisation. (Understand-PSO2/CO3)
18. Explain the importance of Social Audit in governance. (Understand- PSO2/C4)

(6 x 2 = 12)

Section C

(Answer any two questions. Each question carries a weight of 5.)

19. Discuss the evolution, nature and scope of Public Administration. (Evaluate- PSO1/CO1)
20. Evaluate the significance of e-governance in ensuring the quality of administration and substantiate with suitable examples. (Apply- PSO2/CO2)
21. Prepare an analysis report of the Budget 2023-24. (Create-PSO4/CO4)
22. Discuss about the inefficiencies in administration and suggest some remedies to resolve it as a citizen. (Evaluate- PSO8/CO3) **(2 x 5=10)**

2. CLASS TEST (SAMPLE)

ALPHONSA COLLEGE, PALA

INTERNAL EXAMINATION NOVEMBER 2022
M.A. POLITICAL SCIENCE

Semester I
Theories And Concepts of Public Administration

Time : 1 Hour Marks : 20

PART A (Each question carries two marks)

Answer any five

1. Define Social Audit.(Remember- PSO5/ CO4)
2. Distinguish between Public and Private Administration. (Understand- PSO1/CO1)
3. Define Unity of Command. (Remember- PSO1/CO3)
4. What is Development Administration? (Remember- PSO1/CO1)
5. Make a classification of Budget. (Understand- PSO5/CO4)
6. Differentiate between Line and Staff Agencies.(Understand- PSO5/CO3)

(5 × 1 =5marks)

Part B. (Each question carries 5 marks)
Answer any Two

7. Analyse the importance of Human Relations Theory in the working of a modern organization. (Analyse-PSO1/CO1)

8. Examine the role of ICT in Good Governance. (Analyse- PSO2/CO2)

9. Evaluate the role of Woodrow Wilson in the development of Politics – Administration Dichotomy. (Evaluate- PSO1/CO1) **(2 × 5 = 10 marks)**

Part C. (Each question carries 10 marks)
Answer any One

10. Discuss the role, powers and Functions of Chief Executive. (Evaluate-PSO5/CO3)

11. Prepare a Budget for the Government of India for the next fiscal year. (Create- PSO4/CO4) **(1×10= 10 marks)**

3. SEMINAR (SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average
CONTENT					
PRESENTATION					
TECHNOLOGY					
COMMUNICATION					
INTERACTION					

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4. ASSIGNMENT (SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average
RELEVANCE OF THE TOPIC					
CONTENT					
PRESENTATION					
METHODOLOGY					
TIMELY SUBMISSION					

5. REFLECTIVE JOURNAL(SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

Sl.No	Date	Content Outline	Learning Strategy	Reflections	Remarks of the Teacher
1					
2					
3					
4					
5					

6. VIVA (SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average
SUBJECT KNOWLEDGE					
COMMUNICATION					
PRESENTATION					
COMMUNICATION					
INTERACTION					

7. VISIT PLACES OF POLITICAL VISIT (SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average
PLANNING FOR VISIT					
PLACE OF IMPORTANCE					
REPORTING					
INTERACTION					

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8. PROJECT(SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average
PUNCTUALITY					
METHODOLOGY					
DATA COLLECTION					
KNOWLEDGE					
REPORT					

9. QUIZ (SAMPLE FORMAT)

Name of the Student:

Programme:

Course:

Academic Year:

Register No. :

	Excellent	Very Good	Good	Average	Below Average

Malayalam - Additional Language

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Understand varied theoretical aspects of literary and linguistic – discourse model
PSO2	Gains knowledge about new age literary and linguistic movements.
PSO3	Learns to critically appreciate and analyse language and literature based on a work of Art.
PSO4	Enables aesthetic appreciation of a work of art thereby improving the art of reading and enjoying it.
PSO5	Encourages the use of error free language.

COURSE OUTCOMES (COs)

Course Code	Course Title	PSO	Course Outcome	
ML1CCTO1	Kadha, Novel	PSO1 PSO2 PSO3 PSO4 PSO5	ML1.CO1	Understand the stylistic features of Renaissance and modern story writers.
			ML1.CO2	Evaluate the writing technique of the modern story writers.
			ML1.CO3	Discerns the various aspects of Malayalam Novel literature.
			ML1.CO4	Helps to write about the emotional appeal and impact of the contemporary Malayalam literature.
ML2CCTO2	KAVITHA	PSO1 PSO2 PSO3 PSO4 PSO5	ML2.CO1	Analyse and identify the general characteristic of Malayalam Poetry across ages up until modern period.
			ML2.CO2	Compare the mode of discussion on the themes of Environment.
			ML2.CO3	Evaluate the harsh times about life as portrayed by Malayalam poetry
			ML2.CO4	Equips them to be creative write by the end of the course.
ML3CCTO3	DRUSHYA KALA SAHITH-YAM	PSO1 PSO2 PSO3 PSO4 PSO5	ML3.CO1	Develop knowledge on visual art tradition of Kerala.
			ML3.CO2	Judge the peculiarities of Kalidas Literature and MalayalaSakunthalam.
			ML3.CO3	Evaluate the characteristic of Kathakali literature and Nalacharitha
			ML3.CO4	Develops knowledge on appreciating and enjoying films and theatrical Plays.

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ML4CCTO4	Malayala gadhya rachana-kal	PSO1 PSO2 PSO3 PSO4 PSO5	ML4.CO1	Traces the evolution of modern prose and thereby develop a deep knowledge on essay writing style.
			ML4.CO2	Learns to fine – tune their language skills without mistakes.
			ML4.CO3	Develops knowledge on the inter connection between Art, literature and culture.
			ML4.CO4	Learning through memories about the currents that have shaped the writing style of past literary masters.

CO AND PSO MAPPING

ADDITIONAL LANGUAGE MALAYALAM
SEMESTER 1 ML1CCTO1

KADHA, NOVEL

	PSO1	PSO2	PSO3	PSO4	PSO5
ML1.CO1	3	3	3	-	-
ML1.CO2	3	2	3	3	-
ML1.CO3	3	3	3	-	-
ML1.CO4	-	-	-	3	3

SEMESTER 2 ML2CCTO2
KAVITHA

	PSO1	PSO2	PSO3	PSO4	PSO5
ML2.CO1	3	3	2	2	-
ML2.CO2	2	2	3	2	-
ML2.CO3	-	-	2	3	-
ML2.CO4	-	-	-	3	3

SEMESTER 3 ML3CCTO3
DRUSHYAKALASAHITHYAM

	PSO1	PSO2	PSO3	PSO4	PSO5
ML3.CO1	3	3	3	3	-
ML3.CO2	3	2	3	3	-
ML3.CO3	3	3	3	3	-
ML3.CO4	3	2	3	2	3

SEMESTER 4 ML4CCTO4
Malayalagadhyarachanakal

	PSO1	PSO2	PSO3	PSO4	PSO5
ML4.CO1	3	3	3	2	3
ML4.CO2	2	3	3	3	1
ML4.CO3	-	-	3	3	1
ML4.CO4	-	-	-	3	3

ASSESSMENT TOOLS

Name of the Student:

Programme:

Course:

Academic year:

Reg. No:

1. GRADING

Excellent	5
Very good	4
Good	3
Average	2

1. Internal Exam - 20 marks
2. End Semester Exam – 80 marks
3. Seminar

	Excellent	Very Good	Good	Average
Content				
Presentation				
Use of Technology				
Communication				
Interaction and Discussion				

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2. ASSIGNMENT

	Excellent	Very Good	Good	Average
Relevance of the topic				
Content				
Presentation				
Methodology				
Final Submission				

3. CLASS TEST (SAMPLE)

Alphonsa College, Pala
Second Semester
COMMON COURSE II - Malayalam
Internal Examination - February 2023-2024

Time: 1 hour Maximum Marks: 20

ML2CCT02 - കവിത

അര പേജിൽ കവിയാതെ രണ്ടു ചോദ്യങ്ങൾക്ക് ഉത്തരമെഴുതുക

1. ബാലചന്ദ്രൻ ചുള്ളിക്കാടിന്റെ പ്രധാന കൃതികൾ പരിചയപ്പെടുത്തുക.
[Re- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

2. "വെറ്റില ചെല്ലം" എന്ന കവിതയുടെ സവിശേഷതകൾ വിവരിക്കുക.
[Re- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

3. "നാഷണൽ ജ്യോഗ്രഫി" എന്ന കവിതയ്ക്ക് ആസ്വാദനമെഴുതുക.
[U- CO_4/ PSO_4,PSO_5] (2.5 x 2 =5)

ഒരു പുറത്തിൽ കവിയാതെ ഒരു ചോദ്യത്തിന് ഉത്തരമെഴുതുക

4. "പല കാലത്തിൽ
പല പ്രായത്തിൽ
പല ഞാനുകൾ
കൂട്ടമ്മാനു ചുറ്റുമോടി" - വ്യാഖ്യാനിക്കുക. (app-CO_1/ PSO_1,PSO_2, PSO_3,PSO_4)

5. 'ഞാനതിനെ വാൽസല്യത്തോടെ എടുത്ത് ജാലകപ്പുറത്ത് കാത്തുനിന്ന മേഘത്തെയേൽപ്പിച്ചു"- ഇങ്ങനെ ചെയ്യാൻ കവിയെ പ്രേരിപ്പിച്ചതെന്ത്?
(Ana- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4)

നാലു പേജിൽ കവിയാതെ ഒരു ചോദ്യത്തിന് ഉത്തരമെഴുതുക

6. ഒരുയുണ്ടെങ്കിൽ ഉലക്കമേലും കിടക്കാം എന്ന പഴഞ്ചല്ലിനെ 'പഴഞ്ചൊല്ലുകൾ' എന്ന കവിതയിൽ എപ്രകാരമാണ് പുനർവായിക്കുന്നത്? (eva-CO4/PSO4,PSO5)

7. വൈലോപ്പിള്ളി കവിതയുടെ സവിശേഷതകൾ 'സ്നേഹസുന്ദരപാതയിൽ' എന്ന കവിതാ ഭാഗത്തെ മുൻനിർത്തി ഉപന്യസിക്കുക. (cre-CO4/ PSO4,PSO5)

(1*10=10)

4. END SEMSTER EXAMINATION (SAMPLE)

B.A. Degree (CBCS) MODEL EXAMINATION
Second Semester
COMMON COURSE II - ML2CCT02 - മലയാളം കവിത

Time: 3 hours Maximum Marks: 80

പാർട്ട് എ

അരപ്പുറത്തിൽ കവിയാതെ ഏതെങ്കിലും പത്തു ചോദ്യത്തിന് ഉത്തരമെഴുതുക.

ഓരോ ചോദ്യത്തിനും 2 മാർക്ക് വീതം

1. "ചടുല ലതകളാടിടാതെ ചാഞ്ഞാ-
വിടപികൾ മേലനുമൂർച്ഛാർന്നു നിന്നു" - ഇങ്ങനെ നിൽക്കാൻ കാരണമെന്തെന്ന് കണ്ടെത്തുക. [Re-CO1/PSO1,PSO2,PSO3,PSO4]

2. "തടവി വിവശമംഗ മോമനേ, യെ-
ന്നിടറി വിളിച്ചവൾ കണ്ണുനീർ ചൊരിഞ്ഞാൾ" ആര്? സന്ദർഭമെന്ത്?
[Re-CO1/PSO1,PSO2,PSO3,PSO4]

3. "വർഷങ്ങൾക്കപ്പുറത്ത് നിന്ന്
ഒരു ചിരി വന്ന്
ഇരുവരുടെയും മുഖത്ത് പടർന്നു." - കാരണമെന്ത്?
[Un-CO3/PSO3,PSO4]

4. "വെമ്പി ഞങ്ങളീ ലോകം സമത്വ
പ്പൊൻ വനിയായ് പുനർ വിരചിപ്പാൻ" - ആരാണ് വെമ്പിയത്?
[Re- CO1/ PSO1,PSO2, PSO3,PSO4]

5. 'നേരമായി നിനക്കു ജീവിക്കാൻ
നേരമിന്നു തിരക്കു കൂട്ടുന്നു." - ആരുടെ വാക്കുകളാണിത്? വിശദീകരിക്കുക.
[UN- CO3/ PSO1,PSO2, PSO3,PSO4]

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6. "അതോ മായികതകളെല്ലാം കൊഴിഞ്ഞ്
തനിത്തരം പരസ്യപ്പെട്ടുപോയ
ഒരു മുൻ അവതാരമോ നീ" കവി ഇങ്ങനെ സംശയിക്കാൻ കാരണമെന്ത്?
[UN- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

8. 'ഒറ്റക്കു വീണുമരിക്കാൻ പഠിച്ചുകഴിഞ്ഞു ഞാൻ'
എന്ന പ്രസ്താവന ഏതു സാഹചര്യത്തിലാണ് ഉണ്ടാവുന്നതെന്ന് വിശദീകരിക്കുക.
[Cr-CO_2/ PSO_3,PSO_4]

9. "അഥവാ ഉലക്കമേൽ കിടക്കാനുള്ളതാണോ ഒരുമ?
അതോ തലയുയർത്തി എണീറ്റു നില്ക്കാനുള്ളതോ? ഈ ചോദ്യങ്ങൾ ഉയരുന്ന
സന്ദർഭമേതെന്ന് വിശദീകരിക്കുക. [AnP- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

10. "തല നിവർത്തുമ്പോൾ വാല് ചുരുളും
വാലു നിവർത്തുമ്പോൾ തലയും" - എന്തിനെപ്പറ്റിയാണ് ഇവിടെ
പ്രതിപാദിക്കുന്നത്? [UN- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

11. "ഈ മൃഗ്രഗ്രഹം നുളാൻ
എന്റെയാവിവൻ തോണി" സന്ദർഭമേത്? വിശദീകരിക്കുക.
[UN- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

12. "കൊടുങ്കാറ്റിനെ അഴിച്ച് തിരമാലയ്ക്ക കൊടുത്തു" - ആര്?
വിശദമാക്കുക. [UN- CO_2/ PSO_1,PSO_2, PSO_3,PSO_4] [10x2=20]

പാർട്ട് ബി

ഒന്നരപ്പുറത്തിൽ കവിയാതെ ആറു ചോദ്യങ്ങൾക്ക് ഉത്തരമെഴുതുക.
ഓരോ ചോദ്യത്തിനും 5 മാർക്ക് വീതം

13. "മുറിച്ചു മാറ്റിയ കൈയിന്റെ
വേദനപോലെ ഒരു കവിത ഇന്നു ഞാനെഴുതും" - എന്ന് ഏതു സാഹചര്യത്തിലാണ്
കവി വിചാരിക്കുന്നത്? [App- CO_3/ PSO_3,PSO_4]

14. 'വിപ്ലവമാർഗ്ഗത്തെക്കുറിച്ചുള്ള സംശയങ്ങളാണ്
സ്നേഹസുന്ദരപാതയിലൂടെ എന്ന കവിതാഭാഗത്ത് ഉള്ളത് ' - വിശദീകരിക്കുക.
[UN- CO_1/ PSO_1,PSO_2, PSO_3,PSO_4]

15. 'കുഞ്ഞുണ്ണി മാഷിന്റെ കവിതകൾ വേറിട്ട ഒരു ഭാവുകത്വത്തെ അടയാളപ്പെടുത്തുന്നു'
- കുന്നി രണികൾ എന്ന പാഠഭാഗത്ത് തന്നിട്ടുള്ള കവിതകളെ അടിസ്ഥാനമാക്കി
വിശദീകരിക്കുക. [App- CO_4/ PSO_4,PSO_6]

16. 'കണ്ണിലെപ്പോഴും കത്തിജ്ജ്വലിക്കും-
മുൾക്കണ്ണു വേണമണയാത്ത കണ്ണ് '- കോഴിയമ്മയുടെ ഈ ഉപദേശത്തിന്റെ
പ്രസക്തിയെന്ത്? [Ev- CO_4/ PSO_3,PSO_4]

17. 'മെല്ലെതിന്നാൽ പനയും തിന്നാം' എന്ന പഴഞ്ചൊല്ലിനെ 'പഴഞ്ചൊല്ലുകൾ' എന്ന കവിതയിൽ എപ്രകാരമാണ് പുനർവായിക്കുന്നത്? [Cr- CO3/ PSO3,PSO4]

18. 'മുതുകിൽ നിൻ ചാട്ടയുലച്ചു കൊള്ളുക
വലയത്തിൽച്ചാടാനുണർന്നിരിപ്പു ഞാൻ' - ഈ കീഴടങ്ങലിന്റെ കാരണമെന്ത്?
[UN- CO3/ PSO3,PSO4]

19. 'സമ്പത്തു കാലത്ത്...' എന്ന പഴഞ്ചൊല്ലിനെ സച്ചിദാനന്ദൻ എങ്ങനെ വ്യാഖ്യാനിക്കുന്നു? [Cr- CO4/ PSO3,PSO4]

22. 'പ്രകൃതിയിലേക്ക് മറ്റാരും നോക്കാത്ത നോട്ടമാണ്' 'ആഴങ്ങൾ അടച്ചിട്ട പുഴ' എന്ന കവിതയിലൂടെ എസ്. ജോസഫ് - വിശദീകരിക്കുക.
(APP-CO2/PSO1, PSO2, PSO3, PSO4)

21. 'സ്മാരകം' എന്ന കവിതയ്ക്ക് ഒരു ആസ്വാദനക്കുറിപ്പെഴുതുക (un [6x5-30]

പാർട്ട് സി

നാലു പുറത്തിൽ കവിയാതെ രണ്ട് ചോദ്യത്തിന് ഉത്തരമെഴുതുക.

ഓരോ ചോദ്യത്തിനും 15 മാർക്ക് വീതം.

22. "പ്രണയം, വിവാഹം കുടുംബം എന്നീ സ്ഥാപനങ്ങളെ അതിനിശിതമായി ചോദ്യം ചെയ്യുന്ന കലാപകാരികളാണ് കുമാരനാശാന്റെ നായികമാർ" - ലീല എന്ന കവിതയുടെ പശ്ചാത്തലത്തിൽ പരിശോധിക്കുക. (APP-CO4/PSO4, PSO6)

23. കാലത്തിന്റെ കാലുഷ്യത്തെ 'കോഴി', 'മുള്ളൻപന്നി', 'പിറക്കാത്ത മകൻ' എന്നീ കവിതകളിൽ എപ്രകാരമാണ് ആവിഷ്കരിക്കുന്നതെന്ന് വിശദമാക്കുക.
(Eva-CO4/PSO4, PSO5)

24. പെണ്ണിന്റെ സ്വത്വപ്രഖ്യപനവും ചെറുത്തുനിൽപ്പും പെണ്ണിടങ്ങളെക്കുറിച്ചുള്ള സ്വപ്നവും മലയാള കവിതയിലാണ് ഏറ്റവും ശക്തമായി കണ്ടുവരുന്നത് എന്ന അഭിപ്രായം 'മൃഗശിക്ഷകൻ', 'കൽവീട്,' 'ഗോതമ്പുശില്പം' എന്നീ കവിതകളുടെ പശ്ചാത്തലത്തിൽ പരിശോധിക്കുക. (APP-CO3/PSO3, PSO4)

25. ' കുട്ടമ്മാൻ', ' പഴഞ്ചൊല്ലുകൾ' എന്നീ കവിതകൾ എപ്രകാരമാണ് അരികുവത്കരിക്കപ്പെട്ട ജീവിതങ്ങളുടെ പക്ഷം ചേരുന്നതെന്ന് വിശദീകരിക്കുക
(Ccr- CO3/PSO3, PSO4) [2x15-30]

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ISBN: 978-93-85657-41-2

M.Sc. Chemistry

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Demonstrate and apply the fundamental knowledge of the basic principles in various fields of Chemistry
PSO2	Create awareness and sense of responsibilities towards environment and apply knowledge to solve the issues related to Environmental pollution
PSO3	Apply various aspects of chemistry in natural products isolations, pharmaceuticals, dyes, textiles, polymers etc. and also to develop interdisciplinary approach of the subject
PSO4	To provide laboratory experience to students by performing experiments
PSO5	To develop research aptitude
PSO6	To solve spectroscopic problems
PSO7	Acquired the knowledge of terms,facts,concepts,processes ,techniques and pprinciples of subject
PSO8	Developed skills in the proper handling of apparatus and chemicals
PSO9	Are inquisitive towards advanced chemistry and development there in
PSO10	Developed problem solving skills
PSO11	Familiarizing with emerging areas of chemistry and their applications in various spheres of chemical science and to appraise the students of its relevance in future
PSO12	Are exposed to different processes used in industries and their application

COURSE OUTCOMES (Cos)

Course Code	course Title	PSO	Course Outcome	
CH500101	Organo metallics and Nuclear Chemistry	PSO1 PS05 PSO6 PSO7 PSO9 PSO10	CO1.1	Identify the structure and bonding aspects of simple organometallic compounds
			CO1.2	Apply different electron counting rules to predict the shape/geometry of low and high nuclearity metal carbonyl Clusters
			CO1.3	Identify the different types of organometallic reactions and apply the above concepts to explain different catalytic Reactions
			CO1.4	Comprehend and Predict the role of temperature, solvents, and catalysts in organic reactions

			CO1.5	Elucidate reaction mechanisms using isotope effects
CH500102	Structural & Molecular Organic Chemistry	PSO1 PSO7 PSO10	CO2.1	Identify and differentiate prochirality and chirality at centers, axis, planes and helices and determine the absolute configuration
			CO2.2	Evaluate the stability of various conformers of acyclic and cyclic systems using steric, electronic and stereo-electronic effects and correlate them to reactivity.
			CO2.3	Use various models for determining stereo-selectivity of various organic transformations
CH500103	Quantum Chemistry & Group Theory	PSO1 PSO5 PSO6 PSO7 PSO9 PSO10	CO3.1	Use mathematical techniques in linear algebra for eigenvalues and eigen vectors and first and second order differential equations not only in quantum chemistry but in other areas of physical and theoretical chemistry that will be offered during the whole programme
			CO3.2	Solve all the model problems in quantum mechanics for which exact analytical methods and solutions are available and will apply them to analyze the basis behind the postulatory method of quantum mechanics and which forms the foundations for advanced study of the subject.
			CO3.3	Relate concepts that were originally introduced purely as modern atomic physics to molecular systems through harmonic oscillator, spin and rigid rotator.
			CO3.4	Determine the symmetry operations of any small and medium-sized molecule and apply point group theory to the study of electrical, optical and magnetic properties and selection rules for absorption

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CH500104	Classical and Statistical Thermo dynamics	PSO1 PSO5 PSO7 PSO10	CO4.1	Calculate change in thermodynamic properties, equilibrium constants, partial molar quantities, chemical potential. Identify factors affecting equilibrium constant.
			CO4.2	Apply phase rule and, draw phase diagrams for one, and two component systems, identify the dependency of temperature and pressure on phase transitions, and identify first/second order phase transitions.
			CO4.3	Solve problems based on Debye-Huckel limiting law. Calculate excess thermodynamic properties.
			CO4.4	Calculate the absolute value of thermodynamic quantities (U, H, S, A, G) and equilibrium constant (K) from spectroscopic data.
			CO4.5	Predict heat capacity (Cv, Cp) of an ideal gas of linear and non-linear molecules from the number of degrees of freedom, rotational and vibrational wave numbers.
			CO4.6	Derive the temperature dependence of the second Virial coefficient (real gases) from interatomic potentials.
CH500201	Coordination Chemistry	PSO1 PSO3 PSO6 PSO7 PSO10	CO5.1	Identify the principles, structure and reactivity of selected coordination complexes. Interpret their electronic spectra and magnetic properties.
			CO5.2	Utilize the principles of transition metal coordination complexes in understanding functions of biological system
CH500202	Organic Reaction Mechanism	PSO1 PSO5 PSO7 PSO9 PSO10 PSO11	CO6.1	Comprehend the structure-reactivity pattern of reactive intermediates involved in organic reactions
			CO6.2	Comprehend the orbital interactions and orbital symmetry correlations of various pericyclic reactions
			CO6.3	Write mechanism of organic reactions involving reactive intermediates and concerted processes
			CO6.4	Apply these reactions in organic synthesis

CH500203	Chemical Bonding and Computational Chemistry	PSO1 PSO5 PSO7 PSO10	CO7.1	Apply time independent perturbation theory to complex problems of molecular energy levels in the presence of external electric and magnetic fields
			CO7.2	Distinguish different types of hybridization based on geometries of the complex and to calculate for a one- electron and two electron system, all the necessary integrals due to coulombic forces
			CO7.3	Write short simple programs in FORTRAN and be able to compile and execute them in a host of machines
			CO7.4	Use standard software tools such as MATLAB and Mathematica to perform algebraic and numerical calculations often required in elementary physical chemistry in the areas of quantum chemistry, spectroscopy, kinetics and thermodynamics
CH500204	Molecular Spectro-scopy	PSO1 PSO5 PSO6 PSO10 PSO11	CO8.1	Apply NMR, IR, MS, UV-Vis spectroscopic techniques in solving structure of organic molecules and in determination of their stereochemistry
			CO8.2	Interpret the above spectroscopic data of unknown compounds
			CO8.3	Use these spectroscopic techniques in their research
CH500205	Inorganic chemistry practical-1	PSO4	CO9.1	Plan and Conduct experiments for identifying and characterizing inorganic compounds
CH500206	Organic Chemistry Practical-1	PSO3 PSO4 PSO8	CO10.1	Separate and purify products in organic reactions
			CO10.2	Characterize organic compounds using spectroscopic and
			CO10.3	Apply the concepts of nanotechnology and polymer chemistry in to research
CH500207	Physical Chemistry Practical-1	PSO4	CO11.1	Explain the principle behind the experiments performed in the laboratory
			CO11.2	Plan and Perform experiments and Interpret experimental results.

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CH500301	Structural inorganic chemistry	PSO1 PSO6 PSO7 PSO9 PSO10	CO12.1	Arrive at the chemical compositions based on unit cell contents and fractional coordinates.
			CO12.2	Calculate densities from powder XRD data
			CO12.3	Identify and apply a suitable strategy for synthesizing inorganic crystalline solids in polycrystalline and single crystal forms
			CO12.4	Correlate and Predict structure-composition-properties (magnetic, electrical and optical) in inorganic crystalline solids
CH500302	Organic Synthesis	PSO4 PSO5 PSO8	CO13.1	Use various reagents and organic reactions in organic synthesis
			CO13.2	Use retrosynthetic method for the logical dissection of complex organic molecules and devise synthetic methods
CH500303	Chemical Kinetics, Surface Chemistry and Crystallo graphy	PSO1 PSO7 PSO10	CO14.1	Solve problems on rate/rate constants/ efficiency for (i) complex reactions (ii) unimolecular and bimolecular reactions, and (iii) electronically excited state dynamics
			CO14.2	Plot equations and functions representing kinetic behaviour of chemical systems in ground and electronically excited states.
CH500304	Spectroscopic Methods in Chemistry	PSO5 PSO6 PSO10 PSO11	CO15.1	Apply NMR, IR, MS, UV-Vis spectroscopic techniques in solving structure of organic molecules and in determination of their stereochemistry
			CO15.2	Interpret the above spectroscopic data of unknown compounds.
			CO15.3	Use these spectroscopic techniques in their research.
CH5OO401	Advanced inorganic chemistry	PSO1 PSO8 PSO10	CO16.1	Solve problems based on various analytical concepts
			CO16.2	Design experiments with improved sample preparation, new measurement procedures and tools
			CO16.3	Quantify analytes with proper data handling and analysis

CH500402	Advanced Organic Chemistry	PSO2 PSO3 PSO5 PSO7	CO17.1	Comprehend Green alternative to organic synthesis
			CO17.2	Apply the concepts of nanotechnology and polymer chemistry in to research
			CO17.3	Apply concepts of stereochemistry in detail
			CO17.4	Drug designing and applications of medicina chemistry
			CO17.5	Comprehend the structure reactivity pattern of supramolecule involved in organic reactions
CH500403	Advanced Physical Chemistry	PSO1 PSO7	CO18.1	Write equations representing electrochemical cell, explain various over potential involved during the operation of the cell.
			CO18.2	Calculate electrochemical cell parameters, electro chemical active surface area, current and over potential under given condition, amount of corrosion and its rate.
			CO18.3	Plot potential vs current, surface coverage vs. potential, potential vs. pH, concentration profile vs. distance from the electrode
CH500405	Inorganic chemistry practical-2	PSO7	CO19.1	Plan and Conduct experiments for identifying and characterizing inorganic compounds.
CH500406	Organic Chemistry Practical -2	PSO4	CO20.1	Separate and purify products in organic reactions.
			CO20.2	Characterize organic compounds using spectroscopic and spectrometric techniques.
			CO20.3	Apply the concepts of nanotechnology and polymer chemistry in to research.
CH500407	Physical Chemistry Practical -2	PSO4	CO21.1	Explain the principle behind the experiments performed in the laboratory.
			CO21.2	Plan and Perform experiments and Interpret experimental

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CO AND PSO MAPPING
PG CHEMISTRY

SEMESTER 1 CH500101
ORGANOMETALLIC AND NUCLEAR CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO1.1	2	-	-	-	1	-	3	-	1	-	-
CO1.2	1	-	-	-	-	-	3	-	-	3	-
CO1.3	-	-	-	-	2	-	1	-	-	-	-
CO1.4	2	-	-	-	2	-	2	-	-	-	-
CO1.5	-	-	-	-	-	2	-	-	-	3	-

SEMESTER 1 CH500102
STRUCTURAL AND MOLECULAR ORGANIC CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO2.1	3	-	-	-	-	-	-	-	-	-	-
CO2.2	-	-	-	-	-	-	2	-	-	-	-
CO2.3	2	-	-	-	-	-	1	-	-	10	-

SEMESTER 1 CH500103
QUANTUM CHEMISTRY AND GROUP THEORY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO3.1	2	-	-	-	3	-	-	-	2	-	-
CO3.2	-	-	-	-	-	-	-	-	-	3	-
CO3.3	2	-	-	-	-	-	2	-	-	-	-
CO3.4	1	-	-	-	-	2	3	-	-	1	-

SEMESTER 1 CH500104
CLASSICAL AND STATISTICAL THERMODYNAMICS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO4.1	2	-	-	-	-	-	2	-	-	3	-
CO4.2	1									2	
CO4.3					1		2			3	
CO4.4	1									3	

SEMESTER 2 CH500201
COORDINATION CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO5.1	2					1	3				
CO5.2			1				3			1	

SEMESTER 2 CH500202
ORGANIC REACTION MECHANISM

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO6.1					1						
CO6.2	2						2				
CO6.3							2			2	
CO6.4					2				1	2	2

SEMESTER 2 CH500203
CHEMICAL BONDING AND COMPUTATIONAL CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO7.1	1	-					2				
CO7.2	2						2			2	
CO7.3	1				3					2	
C07.4					3					2	

SEMESTER 2CH500204
MOLECULAR SPECTROSCOPY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO8.1	1	-				3				3	
CO8.2					2						3
CO8.3					3						3

SEMESTER 2 CH500205
INORGANIC CHEMISTRY PRACTICAL-I

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO9.1				3							

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SEMESTER 2 CH500206
ORGANIC CHEMISTRY PRACTICAL-I

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO11.1			3								
CO11.2				3							
CO11.3								3			

SEMESTER 2 CH500207
PHYSICAL CHEMISTRY PRACTICAL-I

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO11.1				3							
CO11.2				2							

SEMESTER 3 CH500301
STRUCTURAL INORGANIC CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO12.1	2						2				
CO12.2						2				2	
CO12.3									3		
CO12.4									1		

SEMESTER 3 CH500302
ORGANIC SYNTHESIS

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO13.1			3								
CO13.2				3							
CO13.3								3			

SEMESTER 3 CH500303
CHEMICAL KINETICS,SURFACE CHEMISTRY AND CRYSTALLOGRAPHY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO14.1	2									3	
CO14.2							2				
CO14.3	2						2				

SEMESTER 3 CH500304
SPECTROSCOPIC METHODS IN CHEMISTRY

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO15.1						3				2	2
CO15.2						2				2	2
CO15.3					3						

SEMESTER 4 CH5OO401
Advanced inorganic chemistry

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO16.1	-	-	-	-	-	-	-	-	-	3	-
CO16.2	-	-	-	-	-	-	-	3	-	-	-
CO16.3	-	-	-	-	-	-	-	2	-	-	-

SEMESTER 4 CH500402
Advanced OrganicChemistry

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO17.1	-	3	-	-	-	-	-	-	-	-	-
CO17.2	-	-	-	-	3		-	-	-	-	-
CO17.3	-	-	-	-	-	-	2	-	-	-	-
CO17.4	-	-	2	-	-	-	-	-	-	-	-
CO17.5	3										

SEMESTER 4 CH500403
Advanced physical chemistry

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO18.1	-	-	-	-	-	-	3	-	-	-	-
CO18.2	-	-		-	-	-	-	-		2	-
CO18.3	-	-	-	-	-	-	1	-	-	-	-

SEMESTER 4 CH500405
Inorganic chemistry practical-2

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO19.1				3							

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SEMESTER 4 CH500406
Organic Chemistry Practical -2

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11
CO20.1	-	-	-	3	-	-	-	-	-	-	-
CO20.2	-	-		3	-	-	-	-	-	-	-
CO20.3	-	-	-	3	-	-	-	-	-	-	-

SEMESTER 4 CH500407
Physical Chemistry Practical -2

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO21.1	-	-		3	-	-	-	-
CO21.2	-	-	-	3	-	-	-	-

EVALUATION STRATEGIES

ASSESSMENT TOOLS

1. CLASS TEST
(SAMPLE INTERNAL EXAM QUESTION PAPER)

M.SC DEGREE (C.S.S.) INTERNAL EXAMINATION
CH5 00202-ORGANIC REACTION MECHANISM

Time:1.5 Hour Max.Weight:15

Section A

Answer all questions. Each question carries a weight of **1**.

1. Draw the mechanism for the formation and reaction of a kinetic enolate(remember /co6.1/ps07)
2. Explain oxy mercuration reaction (co6.4/pso5/understanding)
3. Define autooxidation. (remembering/ co6.4/pso5)
4. With suitable example distinguish between conrotory and disrotatory motions(Analyze/co6.2/pso7)
5. Discuss Baldwins rule(understanding/co6.1/pso7)
6. Execute the mechanism of claisen condensation.(applying/ co6.4/pso5)

Section B

Answer any 3 questions. Each question carries a weight of **2**.

7. With the help of PMO and FMO methods justify that [2+2] cycloaddition reaction is photochemically allowded reaction (evaluating/co6.2/pso7)
8. Compare the addition of HBr to propene in the presence and absence of peroxide (analyzing/co6.1/pso7)
9. Illustrate the mechanism of Stobbe condensation and its synthetic applications (analyzing/ co6.4/pso5)
10. Produce synthesis of norbornane cold fom cyclopentadiene (applying/co6.4/ pso5)

Section C

Answer any **one** question. Each question carries a weight of **5**

11. Develope a path for synthesis of indole and pyrroles from sulfoxonium ylides (cerate/ co6.3/pso7)
12. Defferenciate SN1 and SN2 reaction (Analyze/co6.1/pso7)

2. END SEMESTER EXAM (UNIVERSITY EXAM QUESTION PAPER)

M. Sc Degree (C.S.S) Examination, July 2021

Fourth Semester

CH 80 04 02- ADVANCED ORGANIC CHEMISTRY
(2019 admissions onwards)

Time: Three hours Max. Weight: 30

Section- A

(Answer any eight questions. Each question carries a weight of 1)

1. Why microwave energy is used in organic synthesis(PSO3/CO17.1/ANALYSE
2. Define supramolecular chemistry? Which molecular interaction form its basis?(PSO11/CO17.5/REMEMBER)
3. Describe the principles microwave assisted organic synthesis (UNDERSTANDING/CO17.1/PSO2)
4. How dendrimers are classified (PSO1/PSO3/CO17.2/ANALYSE)
5. Explain molecular recognition (UNDERSTAND /CO17.5/ PSO1)

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6. Explain the human genome project (PSO7/PSO11/CO17.2/ UNDERSTAND)
7. Define host and guest (CO17.5 / PSO1/remembering)
8. Explain conducting polymers with one example(PSO5/co17.2/understanding)
9. Describe the photochemical reduction of benzophenone to benzopinacol (UNDERSTAND/co17.1/pso2)
10. Explain different phases of drug metabolism(PSO5/ UNDERSTAND/co17.2)

(8 x 1 = 8)

Section B

(Answer any six questions. Each question carries a weight of 2)

11. Explain the Enatioseletive synthesis of Corey lactone (PSO7/co17.3/ UNDERSTAND)
12. Explain the mode of action of chloramphenicol(PSO3/co17.4/ UNDERSTAND)
13. Describe assymetricaldol condensation pioneered by Evans(PSO7/co17.3/ UNDERSTAND)
14. Produce industrial applications of anionic binding host(applying/co17.5/pso1)
15. What are the alternative (1) energy sources and (2) reaction media recommended currently on the basis of green chemistry principle? (PSO2/CO17.1/APPLY
16. Explain the synthesis of Ibuprofen by Green alternatives(PSO2/CO17.1/ UNDERSTAND)
17. Explain the different forces involved in molecular recognition(PSO11/CO17.5/ understanding)
18. Write a note on the mode of action of (1) Warfarin (2) Chloroquin (PSO3 / co17.4/UNDERSTAND) (6 x 2 = 12)

Section C

(Answer any two questions. Each question carries a weight of 5)

19. Design a route for nanoparticle synthesis using green chemistry (create/co17.1/ pso2)
20. Explain the significance of 12 principles in green chemistry? (PO2/CO17.1/ UNDERSTAND
21. Explain the general principle involved in (a) Sonochemical synthesis (b) Microwave assisted synthesis, with suitable examples?(PO2/CO17.1/ UNDERSTAND /
22. Write notes on (a) Antibiotics (b) Drugs for cancer (c)Replication of DNA (d) Transcription and Translation(PSO3/co17.4/ UNDERSTAND (2 x 5 = 10)

3. PRACTICAL (SAMPLE FORMAT)

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Theoretical Knowledge					
Setting up of experiment					
Observations and Inference					
Submission of record					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

4. SEMINAR

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average/ Needs improvement
Content					
Presentation					
Use of technology					
Communication					
Interaction and Discussion					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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5. ASSIGNMENT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
Content					
Presentation					
Methodology					
Punctuality					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

6. VIVA

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Knowledge about the topic					
No of answered questions					
Presentation					
Time taken					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

7. PROJECT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Relevance of the topic					
Content					
Methodology and References					
Report					
Punctuality					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

8. FIELD VISIT

NAME OF STUDENT:

PROGRAMME:

COURSE:

ACADEMIC YEAR:

REG. NO:

	Excellent	Very Good	Good	Average	Below Average
Planning					
Involvement					
Interaction					
Report					

Excellent -5 points , Very Good – 4 points, Good – 3 points, Average -2 points, Below Average –1 point

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M.A. English

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Examine the history of British Literature and language, its evolution from Old English to Postmodern period.
PSO2	Analyse the key concepts and texts of literary criticism ever since its emergence and develop a theoretical familiarity with the range of approaches and mechanics of critique.
PSO3	Enable the students to understand certain core aspects of Literary Theory and Cultural Studies and also provide exposure to select current developments in this domain
PSO4	Understand the basic concepts of linguistics and analyse language from a scientific perspective through an initiation into the history of English Language
PSO5	Understand the history of ancient Indian English Literature and evaluate the transformations due to colonization in this discourse and the subsequent development of Indian English Literature
PSO6	Analyse the different genres of Literature and their respective developments with reference to several works which provide a holistic understanding of the socio-cultural scenario of the then contemporary society
PSO7	Enable the students to trace the evolution of non –British literary tradition by analysing different European,African,and postcolonial works.
PSO8	Enable the students to empower themselves as noble women who contribute to the different facets of society by assessing the social stakes involved in being a woman and addressing the issue of Gender and Community Identity.

COURSE OUTCOMES

Semester I

Course Code	Course Title	Programme Specific Outcomes (PSO)	Course Outcomes (CO)
EN010101	Up Until Chaucer: Early Literatures in English	PSO1 PSO6 PSO8	CO1: Equip the students to access and understand the personal experiences of people living in a society different from our own.
		PSO1 PSO4	CO2: Discuss the knowledge of the growth of English Language and Literature upto the age of Chaucer.
		PSO1 PSO6	CO3: Examine the literature of Anglo Saxons written over a thousand years ago.
		PSO1 PSO6 PSO8	CO4: Analyse and assess the paradigm shift that made possible the emergence of English Literature with a purpose and identity of its own.
EN010102	Literature of the English Renaissance	PSO1 PSO6 PSO8	CO5: Instill the capacity to appreciate Renaissance writings bearing the stamp of radical changes in the outlook and ways of life.
		PSO1 PSO6	CO6: Explain the literature of the English Renaissance studied in a variety of historical context.
		PSO6 PSO1 PSO8	CO7: Assess how the confluence of the social, political and economic forces culminated in conditions conducive to the creation of an impressive volume of literature.
		PSO1 PSO6	CO8: Inspect how literary luminaries like William Shakespeare and Christopher Marlowe emerged and influenced each other leaving their mark on their own and the time to come.

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EN010103	Literature of the English Revolution / Enlightenment	PSO1 PSO6	CO9: Identify the late seventeenth and eighteenth literary scenario that draws upon the significant social and political developments of the time.
		PSO1 PSO6	CO10: Examine the poetry of John Milton, John Dryden, Alexander Pope, Aphra Ben and Thomas Gray.
		PSO1 PSO6	CO11: Inspect the drama written during this span of time.
		PSO1 PSO6	CO12: Evaluate the acclaimed fiction of the aforementioned period.
EN010104	Nineteenth Century English Literatures	PSO1 PSO3 PSO6	CO13: Explain the theoretical premises of the British Romantic Movement aswellas the Victorian Age that chronologically follows the Romantic Era.
		PSO1 PSO6	CO14: Shows the historical significance of the ode as a poetic form best suited to examine the subjective and the individualistic imagination of the romantic poet which finds the expression in odes.
		PSO6 PSO1	CO15: Assess different novels of Victorian and Romantic Era.
		PSO1 PSO6 PSO3	CO16: Compare Victorian Poetry and Romantic Poetry.
EN010105	Literary Criticism	PSO2	CO17: Assess the historical, political and aesthetic dimensions of the growth of literary criticism.
		PSO2 PSO1	CO18: Discuss the issues like common formation, evolution of the genres and methods of literary analysis.
		PSO2	CO19: Analyse the concepts of classical western criticism from Plato, Aristotle, Horace and Longinus along with English Renaissance and Neo-classical Criticism
		PSO2	CO20: Critically evaluate psychoanalysis, archetypal criticism, Russian Formalism and Reader Response Theories.

Semester II

EN010201	Modernity and Modernism	PSO1 PSO6 PSO3	CO21: Understand the changed literary perspectives in the twentieth century, along with the social, economic and political background.
		PSO3 PSO1	CO22 : Analyse The impact of the Soviet experiment at the global level that needs to be read against the backdrop of the spread and influence of Marxism on a global scale calls for a radical review of world politics.
		PSO1 PSO6	CO23: Examine experimentation that came as the result of the reaction against Romanticism and Victorianism.
		PSO6 PSO1 PSO3	CO24: Assess the movements like the AvantGarde, The Pink Decade and the so forth.
EN010202	Postmodernism and Beyond	PSO1 PSO3	CO25: Analyse the theoretical concepts of postmodernism.
		PSO6 PSO1 PSO3	CO26: Assess the compilation of the diverse postmodern poetry.
		PSO6 PSO3	CO27: Show the different postmodernist features manifested in postmodernist novels.
		PSO3 PSO6	CO28: Critically evaluate the postmodern dramas and to assess the features of Romantic and Victorian novels.
EN010203	American Literatures	PSO7 PSO6	CO29: Examine the processes and texts responsible for the evolution of the American Literature.
		PSO7 PSO2	CO30: Demonstrate American Literature as a separate branch that possesses the characteristic features that sets it apart from others.
		PSO7 PSO6	CO31: Asses the major conflicts, struggles and movements of the non- British tradition.
		PSO7 PSO6	CO32: Formulate the experiences of a group of people struggling to establish themselves as a nation.

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EN010204	English Language History and Contemporary Linguistics	PSO4 PSO1	CO33: Understand the various areas in linguistics.
		PSO4	CO34: Analyse the recent advances in the theory of language study.
		PSO1 PSO4	CO35: Examine the history of English Language and its evolution.
		PSO4	CO36: Assess the modern notions and concerns in the field of linguistics.
EN010205	Thinking Theory	PSO3	CO37: The students will be able to understand certain aspects of Literary theory.
		PSO3 PSO1	CO38: Examine the current developments in this domain.
		PSO3	CO39: Assess issues pertaining to the Unconscious and Cognition.
		PSO3 PSO6	CO40: Analyse how self disavows its encounter with the Othered-Marginal.

Semester III

EN010301	Reading India	PSO5 PSO7	CO41: Outline the origin and growth of Indian writing in English especially in the colonial and post colonial context.
			CO42: Compare the differences in the thematic and stylistic aspects between the pre independence and post independence periods.
		PSO7 PSO5	CO43: Analyse the problem of modernisation in Indian writing in English, the Diaspora and the quest for identity also will be focussed .
		PS07 PSO5	CO 44: Analyse literary texts including translations of regional literatures is expected to acquaint the students with the cultural diversity of the country as well as the Indian philosophy reflected in these writings.

EN010302	Postcolonial Fiction	PSO7 PSO6	CO45: The students will be able to understand the various representative texts of Post-colonial experience.
		PSO6 PSO7	CO46: Analyse the consequences of European Expansion and how it led to the exploitation of other worlds.
		PSO6 PSO3	CO47: Assess internal colonizations of diverse kinds.
		PSO5 PSO7	CO48: Examine Arabic, Asian, Indian, African and Caribbean texts and understand how they portray post colonial experiences.
EN010303	Body Text and Performance	PSO6 PSO3	CO49: Discuss the interface between the visual and the verbal.
		PSO6 PSO3	CO50: Performance patterns like dance and performance in the form ofgender/ transgender/autobiography has to be considered.
		PSO6	CO51: Emphasising cinematic medium in a study of performance.
		PSO6 PSO3	CO52: Choosing theatres that deal with issues of gender, ethnicity caste etc and notions like Alienation effect, Comedy of Menace, Expressionism and similar modes of theatrical performance are made part of it.
EN010304	Literature and Gender	PSO8 PSO6	CO53: Understand The 'woman quotient' in Gender Studies where the concept of Masculinity which looms large in a patriarchal social order.
		PSO8	CO54: Examine Ecriture Feminine.
		PSO8 PSO3	CO55: Assess the social stakes involved in being a woman and addresses the issue of Gender and Community Identity.
		PSO8 PSO3	CO56: Examine the problematic issues of Lesbian and Black identity.

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EN010305	Ethics in/as Literature	PSO3 PSO1	CO57: Examine the major theoretical interpretation of the narrative and narrative mores.
		PSO3	CO58: Analyse fabulist writings in a new manner apart from the usual manner of narrative realism.
		PSO3 PSO6	CO59: Assess how fiction has dealt with the issue of disabilities at different levels.
		PSO3 PSO6	CO60: Examine and analyse how the environment and human lives intersect with each other and how the issues of Otherness have been tackled by narrative fiction.

Semester IV

			CO61: Demonstrating Cultural Studies as "remapping of humanities by transgressing disciplinary boundaries.
			CO62: Examining the pervading cultural semiosis that can discern in societies world over.
			CO63: Classify different modes that lifestyle assumes with the various negotiations of socio-cultural identities.
			CO64: Draws the attention to the poetics and politics of sports as myth.
EN010402	Postcolonial Poetry	PSO6 PSO7	CO65: Analyse how diverse poetry from colonies of the European empire address the postcolonial experience
		PSO7 PSO5	CO66: Assess the contours of postcolonial poetry through a conceptual lens.
		PSO7 PSO5 PSO6	CO67: Examine poetry from South Asia and Australasia, West and East Asia, Africa, South America and Carribean.
		PSO3 PSO7 PSO8	CO68: Analyse in a generic way the issues of Identity, Gender, Cultural Poetics, and Language Politics that these representative texts of poetry address.

EN820401	Modern European Fiction	PSO7 PSO6	CO69: Familiarise students with some of the major movements that shaped the growth of the European novel.
		PSO7 PSO6	CO70: Familiarize them with the writings of major novelists belonging to France, Germany, Russia, Greece, Italy and Austria.
		PSO3 PSO7	CO71: Familiarise with various movements like Realism, Existentialism, Naturalism and Postmodernism.
		PSO7 PSO6	CO72: Analyse major movements that shaped the growth of the makers of European Fiction.
EN820402	Modern European Drama	PSO3 PSO7	CO73: Compare the representative plays of the Realistic, Naturalistic, Modernist, Theatre of the Absurd and Postmodern Theatre are discussed.
		PSO6 PSO3	CO74: The characteristics of Postmodern plays are assessed in detail.
		PSO3 PSO6	CO75: Identify with how the diversified movements in Postmodernist theatre are informed by the theatre's increasing propensity to selfconsciousness.
		PSO3 PSO6	CO76: Discuss poststructuralist theories, feminist theories, environmental theatre, performance theories threat from cinema and future of cinema.
EN820403	Indian Poetics Tradition	PSO5 PSO3	CO77: Examine the eight major schools of Indian Aesthetics in general and rasa and Dwani in particular.
		PSO3 PSO5	CO78: Assess different works on the basis of theories in Indian poetics.
		PSO6 PSO5	CO79: Analyse the geo politics behind Tamil poetics.
		PSO6 PSO5	CO80: Assess the gender discrimination and patriarchal norms.

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Mapping of Programme Specific Outcomes and Course Outcomes

SEMESTER I
EN010101
Up Until Chaucer: Early Literatures in English

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO1	2					3		1
CO2	3			2				
CO3	1					3		
CO4	3					2		1

EN010102
Literature of the English Renaissance

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO5	3					2		1
CO6	3					2		
CO7	1					3		1
CO8	3					1		

EN010103
Literature of the English Revolution / Enlightenment

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO9	3					3		
CO10	3					2		
CO11	3					2		
CO12	3					2		

EN010104
Nineteenth Century English Literatures

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO13	3		2			1		
CO14	2					3		
CO15	2					3		
CO16	2		1			3		

EN010105
Literary Criticism

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO17		3						
CO18	1	3						
CO19		3						
CO20		3						

SEMESTER II
EN010201
Modernity and Modernism

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO21	3		2			3		
CO22	2		3					
CO23	3					2		
CO24	1		1			3		

EN010202
Postmodernism and Beyond

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO25	1		3					
CO26	1		1			3		
CO27			3			2		
CO28			3			1		

EN010203
American Literatures

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO29						1	3	
CO30		1					3	
CO31						2	3	
CO32						2	3	

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EN010204
English Language History and Contemporary Linguistics

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO33	1			3				
CO34				3				
CO35	2			3				
CO36				3				

EN010205
Thinking Theory

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO37			3					
CO38	1		3					
CO39			3					
CO40			3			1		

SEMESTER III
EN010301
Reading India

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO41					3		2	
CO42					3		2	
CO43					2		3	
CO44					1		3	

EN010302
Postcolonial Fiction

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO45						3	2	
CO46						2	3	
CO47			2			3		
CO48					2		3	

EN010303
Body Text and Performance

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO49			1			3		
CO50			1			3		
CO51						3		
CO52			2			3		

EN010304
Literature and Gender

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO53						1		3
CO54								3
CO55			1					3
CO56			2					3

EN010305
Ethics in/as Literature

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO57	2		2					
CO58			3					
CO59			3			1		
CO60			2			3		

SEMESTER IV
EN010401 - Cultural Studies

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO61			3			1		
CO62			3			2		
CO63			2			3		
CO64			3			1		

EN010402 - Postcolonial Poetry

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO65						2	3	
CO66					1		3	
CO67					1	2	3	
CO68			3				2	1

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EN820401 - Modern European Fiction

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO69						2	3	
CO70						2	3	
CO71			3				2	
CO72						1	3	

EN820402 - Modern European Drama

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO73			3				1	
CO74			2			3		
CO75			3			2		
CO76			3			1		

EN820403 - Indian Poetics Tradition

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CO77			2		3			
CO78			3		2			
CO79					2	3		
CO80					1	3		

ASSESSMENT TOOLS

1. End Semester Question Paper (Sample)

QP CODE: 22002339

Name: ……..

Reg No: …….

M A DEGREE (CSS) EXAMINATION, NOVEMBER 2022

Second Semester
CORE COURSE- EN010205 - THINKING THEORY

MA ENGLISH, M A ENGLISH (SF)
2019 Admission Onwards
E3AFD15B

Time: 3 Hours **Weightage: 30**

Part A (Short Answer Questions)
Answer any eight questions. Weight 1 each.

1. Define Langue and Parole. **(Remembering) PSO3/CO37**
2. State Derrida's deconstruction of the word 'supplement'. **(Remembering) PSO3/CO37**
3. Explain Semiotics. **(Understanding) PSO3/CO37**
4. Assess whether 'Transcendental homelessness' is to be mourned or celebrated? **(Evaluating) PSO3/CO38**
5. Outline the defining characteristic of poststructuralist reading practices? **(Analyzing) PSO3/CO37**
6. Illustrate how the 'name' of an author is different from the name of an individual? **(Applying) PSO3/CO38**
7. Examine how does the Oedipal question function at/as the centre of practical psychoanalysis? **(Applying) PSO3/CO39**
8. Discuss how the abject is influenced by the Unconscious? **(Understanding) PSO3/CO39**
9. Explain the concept 'Hermeneutics of suspicion'. **(Understanding) PSO3/CO40**
10. Explain the hierarchy that exists between theoretical criticism and practical criticism, as articulated by Barbara Christian**. (Understanding) PSO3/CO37**

(8×1=8 weightage)

Part B (Short Essay/Problems)
Answer any six questions. Weight 2 each.

11. Name the philosophers in whom, according to Derrida, we can find the traces of the 'decentring of structure'? **(Remembering) PSO3/CO37**

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12. Examine whether according to Levi-Strauss, is there a 'true' version of a Myth? **(Applying) PSO3/CO37**

13. Describe how does Foucault examine the position of a text with a 'dead author'? **(Understanding) PSO3/CO38**

14. Explain Robert Young's argument that a poem can never finally be read**. (Understanding) PSO3/CO38**

15. State how according to Nicolas Abraham, is the unstated process that problematizes Hamlet? How is it resolved? **(Remembering) PSO3/CO38**

16. Explain why Julia Kristeva says that 'Contemporary Literature does not take their (Religion, Morality and Law) position '? **(Understanding) PSO3/CO39**

17. Show how does Eve Sedgwick distinguish between paranoid and depressive positions? **(Applying) PSO3/CO39**

18. Explain Gramsci's distinction between state & civil society. **(Understanding) PSO3/CO40** (6×2 = 12 weightage)

Part C (Essay Type Questions)

Answer any two questions. Weight 5 each.

19. Compare the ideas and methods used by two prominent theorists in Culler's essay 'What is Theory'? (Evaluating) PSO3/CO37

20. Compare Barthes and Foucault as they problematize the Author? **(Evaluating) PSO3/CO38**

21. Analyze the feminism that is latent in Shoshanna Felman's critique of Psychoanalysis. **(Analyzing) PSO3/CO39**

22. Summarize how does Gramsci attack all vestiges of 'economism' and 'reductionism' within classical Marxism? **(Evaluating) PSO3/CO40** (2x5=10 weightage)

2. Internal Examination Question Paper (Sample)

ALPHONSA COLLEGE, PALA

MA ENGLISH (SF)

SECOND SEMESTER
INTERNAL EXAMINATION

EN010204-English Language History and Contemporary Linguistics

Time: 1 hour Weightage: 10

Part A (Short Answer Questions)
*Answer any **THREE** questions. Weight **1** each*

1. What is Phonology? (Remember) PSO4/CO33
2. Define Aphasia.(Remember) PSO4/CO33
3. Explain Stress. (Understanding) PSO4/CO33
4. What is a Syllable? (Remember) PSO4/CO33
5. Who coined the term Morphology? (Remember) PSO4/CO33 (3 x 1= 3)

Part B (Short Essay)
*Answer any **ONE** of the following.*

6. Find the syllable in the following words:

   Flower

   A. Teacher

   B. Kettle

   C. Vehicle (Analyse) PSO4/CO34
7. Transcribe the following sentence:

   John and Mary went to the theatre. (Apply) PSO4/CO34
8. Compare Bilingualism and Multilingualism. (Analyse) PSO4/CO36 (1 x 2=2)

Part C (Essay Type Questions)
*Answer any **ONE** of the following*

9. Evaluate the scope of Psycholinguistics. (Evaluate) PSO4/CO36
10. Suggest the future of Sociolinguistics. (Create) PSO4/CO34 (1 x 5 = 5)

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3. Assignment (Sample)

Name of the Student:

Programme:

Class:

Class No.

Register No.

Sl.No.	Assignment	Excellent	Very Good	Good	Average	Below Average
1.	Relevance of the Topic					
2.	Content					
3.	Systematic Presentation					
4.	Timely Submission					

4. Seminar (Sample)

Name of the Student:

Programme:

Class:

Class No.

Register No.

Sl.No.	Seminar	Excellent	Very Good	Good	Average	Below Average
1.	Content					
2.	Methodology					
3.	Technology					
4.	Presentation Skills					
5.	Communication					
6.	Interaction					

5. Comprehensive Viva (Sample)

Name of the Student:

Programme:

Class:

Class No.

Register No.

Sl.No.	Comprehensive Viva	Excellent	Very Good	Good	Average	Below Average
1.	Basic Knowledge					
2.	Presentation Skills					
3.	Topic of Interest					
4.	Knowledge of core courses					

6. Project Evaluation (Sample)

Name of the Student:

Programme:

Class:

Class No.

Register No.

Sl.No.	Project Evaluation	Excellent	Very Good	Good	Average	Below Average
1.	Relevance of the Topic and Analysis					
2.	Project Content					
3.	Presentation					
4.	Research Methodology Used					