Vidya Prasarak Mandal's
AMOLAKCHAND MAHAVIDYALAYA, YAVATMAL
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Principal

No. AMV/ Date:- 5/10/2023

Declaration

This is to declare that information, reports, true copies and numerical data etc. furnished in this file as supporting documents is verified by IQAC and found correct.

Principal
Amolakchand Mahavidyalaya,
Yavatmal

AMOLAKCHAND MAHAVIDYALAYA, YAVATMAL (MS)

PROGRAM OUTCOMES [UG Level]

Faculty of Science and Technology

Upon completion of undergraduate program, students can expect to achieve the following outcomes:

- Establish a robust foundation in fundamental sciences, including physics, chemistry, mathematics, and biology.
- Cultivate analytical and research skills, empowering students to identify and resolve scientific challenges.
- Attain theoretical and practical expertise in a chosen specialization, such as biology, chemistry, physics, mathematics, electronics, or computer science.
- Prepare for advanced education and research opportunities in esteemed institutions both in India and internationally.
- Foster ethical values and professionalism, guiding students in their pursuit of scientific research and development.
- Develop effective communication skills for engaging in scientific discourse and sharing knowledge with the public.
- Equip graduates to pursue diverse career paths in research and development, academia, government, industry, and entrepreneurship.
- Encourage creativity, innovation, and independent thinking to nurture well-rounded and resourceful individuals.
- Provide experiential learning and hands-on training through laboratory and fieldwork opportunities.
- Cultivate problem-solving skills, enabling students to apply scientific principles effectively in real-world scenarios.

PROGRAM OUTCOMES [UG Level]

Faculty of Commerce and Management

Upon completion of the undergraduate program, students will:

- Acquire a profound understanding of business principles, accounting methodologies, and financial management.
- Demonstrate the ability to analyse and interpret financial data, applying it effectively in decision-making processes.
- Exhibit proficient oral and written communication skills, utilizing modern technology for effective business communication.
- Recognize and prioritize ethical behavior and social responsibility within the business environment.
- Work collaboratively within teams, appreciating the advantages of collaboration and diversity.
- Demonstrate robust analytical and critical thinking skills for solving intricate business challenges.

- Adapt to dynamic business environments and emerging trends with agility.
- Showcase entrepreneurial skills by identifying and pursuing new business opportunities.
- Develop a global perspective, acknowledging cultural differences in business practices.
- Be well-prepared for further education and embrace lifelong learning opportunities.

PROGRAM OUTCOMES [UG Level]

Faculty of Arts/Humanities/ Social Sciences

Upon completion of the undergraduate program's students will:

- Demonstrate proficiency in their chosen language (Marathi/Hindi/English).
- Possess the ability to critically evaluate and analyse various literary works and texts.
- Exhibit understanding of economic concepts and principles.
- Critically evaluate political theories and systems.
- Understand historical events and their societal impact.
- Analyse and critically evaluate philosophical theories.
- Demonstrate proficiency in music and the ability to perform in a professional setting.
- Communicate effectively in both oral and written forms.
- Understand cultural diversity and its impact on society.
- Possess the ability to undertake independent research and present findings clearly and concisely.

PROGRAM OUTCOMES [PG Level]

Faculty of Science and Technology

Master of Physics

Upon completing the postgraduate program in Physics, students will:

- Attain advanced knowledge of fundamental principles and concepts in physics.
- Develop problem-solving skills in diverse physics domains, including classical mechanics, thermodynamics, electromagnetism, quantum mechanics, statistical mechanics, nuclear physics, digital electronics, microprocessors, and condensed matter physics.
- Gain proficiency in applying mathematical and computational methods for modelling and analysing physical phenomena.
- Learn to design and execute experiments, analyse data, and effectively communicate findings.
- Cultivate critical thinking, analytical, and research skills essential for pursuing doctoral studies or a career in academia, research, or industry.
- Acquire interdisciplinary knowledge in areas intersecting with physics, such as materials science, biophysics, nuclear physics, and astronomy.

- Demonstrate the ability to work independently, collaborate with peers, and proficiently communicate scientific concepts and research outcomes through written and oral formats.
- Acquire ethical and professional values essential for scientific research and the responsible conduct of science.

PROGRAM OUTCOMES [PG Level]
Faculty of Science and Technology
Master of Chemistry

Upon completion of the postgraduate chemistry program, students will:

- Demonstrate proficiency in conducting theoretical and experimental research within the realm of chemistry.
- Possess the skills to design and execute chemical experiments, analyse data, and interpret results.
- Exhibit competence in employing modern laboratory techniques and instrumentation.
- Acquire a solid understanding of the fundamental principles and concepts across various branches of chemistry.
- Demonstrate knowledge of advanced topics in chemistry, including quantum mechanics, spectroscopy, and thermodynamics.
- Display awareness of chemical safety practices and adherence to regulations.
- Communicate scientific ideas and results effectively through both oral and written presentations.
- Showcase the ability to critically evaluate scientific literature and engage in independent research.
- Understand ethical and professional responsibilities in scientific research.
- Be well-prepared for advanced studies or careers in academia, industry, or government sectors.

PROGRAM OUTCOMES [PG Level]
Faculty of Science and Technology
Master of Mathematics

Upon completing the postgraduate Mathematics program, students will:

- Demonstrate advanced mathematical proficiency to tackle intricate challenges across diverse sectors like finance, engineering, statistics, and physics.
- Apply their mathematical knowledge to real-world issues, utilizing models to analyse and solve problems spanning various industries.
- Possess the ability to independently conduct research in mathematics and related fields, including designing experiments, collecting and analysing data, and drawing valid conclusions.
- Exhibit effective oral and written communication skills, articulating complex mathematical concepts to diverse audiences.

- Collaborate adeptly in interdisciplinary teams, applying mathematical expertise to address complex challenges alongside other professionals.
- Develop critical thinking skills, evaluating diverse problem-solving approaches and applying suitable mathematical methods to address specific issues.
- Maintain a commitment to continuous learning and professional development, staying abreast of developments in their field and adapting to evolving needs and trends.

PROGRAM OUTCOMES [PG Level]
Faculty of Commerce and Management
MASTER OF COMMERCE

Upon successful completion of the postgraduate program in commerce and management, students will:

- Gain advanced knowledge and comprehension of fundamental commerce concepts, applicable across diverse contexts.
- Cultivate a robust ethical foundation, enabling them to navigate intricate ethical dilemmas within the business realm.
- Demonstrate effective oral and written communication skills to convey intricate business ideas proficiently.
- Exhibit the ability to assess and analyze intricate, multidimensional business challenges, fostering innovative problem-solving.
- Cultivate a global perspective, understanding how cultural diversity influences business practices and decision-making.
- Develop leadership and organizational management skills for effective team and organizational governance.
- Foster strategic thinking, enabling evidence-based decision-making to propel organizations toward their objectives.
- Possess strong quantitative skills, proficient in utilizing data and analytics to inform and guide business decisions.
- Acquire proficiency in employing technology tools and platforms for data analysis, effective communication, and problem-solving.
- Cultivate professionalism and adaptability, equipping them to thrive in diverse business environments.

PROGRAM OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (ECONOMICS)

Upon successfully completing the postgraduate program in economics, students will:

- Showcase a profound understanding of economic theories, principles, and concepts, adeptly analysing and interpreting economic data for practical application in real-world scenarios.
- Cultivate critical thinking and problem-solving prowess by employing economic theories to address complex economic challenges, identify issues, and propose solutions based on a solid theoretical foundation.

- Develop effective written and oral communication skills, enabling them to present economic ideas and data persuasively.
- Communicate economic concept analyses clearly to diverse audiences, including policymakers, business executives, and the general public.
- Foster research skills for independent exploration in economics, encompassing data collection, analysis, and interpretation. Utilize various economic models, empirical methods, and statistical techniques to design and conduct research projects.
- Cultivate global and cultural awareness by recognizing the interconnectedness of worldwide economies and societies. Analyse and evaluate the impact of economic policies on different cultures and societies.
- Acquire a versatile skill set and knowledge base for pursuing careers in government, academia, international organizations, as well as private sectors such as banking, financial services, consulting, and research.

PROGRAM OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (POLITICAL SCIENCE)

Upon successful completion of the postgraduate program in political science, graduates will:

- Demonstrate profound knowledge of political theories, concepts, and governance practices.
- Analyze and critically evaluate political phenomena, institutions, and policies using diverse qualitative and quantitative research methods.
- Effectively communicate complex political ideas and arguments through both written and oral means.
- Develop creative and innovative solutions to political problems based on robust research and analysis.
- Conduct independent research on political science topics using appropriate methods and tools.
- Engage in professional and ethical behavior across all aspects of their work as political scientists.
- Demonstrate an understanding of the role of political science in society, exploring intersections with economics, society, and culture.
- Identify and analyze the impact of global, regional, and local events, trends, and actors on politics and governance.
- Collaborate effectively in diverse teams and contexts, bridging gaps across cultural, disciplinary, and professional backgrounds.
- Apply acquired knowledge and skills in various professional and academic settings, including public service, non-governmental organizations, academia, or the private sector.

PROGRAM OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M. A. (HISTORY)

Upon successful completion of the postgraduate History program, graduates will:

- Attain an advanced understanding and knowledge of historical events, concepts, and theories.
- Cultivate critical thinking and analytical skills for evaluating sources and arguments.
- Acquire advanced research skills and methodologies for independent historical research.
- Demonstrate effective communication skills through written and oral presentations of historical research.
- Develop a broad interdisciplinary approach to studying history, encompassing political, economic, social, and cultural forces.
- Proficiently use primary and secondary sources to generate original insights and interpretations.
- Cultivate a nuanced understanding of the complexities and diversity of historical experiences across different cultures, societies, and periods.
- Apply historical perspectives to contemporary issues and debates, connecting historical knowledge to present-day contexts.

PROGRAM OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (ENGLISH)

Upon successful completion of the postgraduate program in English, graduates will:

- Acquire advanced skills in analysing literature and language, applying critical thinking to literary and cultural texts.
- Cultivate advanced communication skills in both written and oral formats, enabling clear and effective expression of complex ideas.
- Develop advanced research skills, including independent research, analysis, synthesis of existing research, and effective presentation of findings.
- Foster an appreciation for the diversity of perspectives and cultures represented in literature and language, applicable in various contexts.
- Gain professional skills relevant to diverse industries, encompassing critical thinking, problem-solving, oral and written communication, and project management.
- Cultivate creative and innovative thinking, exploring new ideas and approaches to literature, language, and culture.
- Develop an understanding of the ethical and social responsibilities associated with literary and language studies.
- Acquire leadership skills, including collaborative work, delegation, and effective project management.
- Foster a commitment to lifelong learning, adapting to new technologies, methodologies, and relevant information in their field.
- Develop global perspectives, understanding the interconnectedness of language and literature across diverse cultures and nations.

PROGRAM OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences

M. A. (MARATHI)

Upon successful completion of the postgraduate program in Marathi, graduates will:

- Demonstrate in-depth knowledge and critical understanding of Marathi literature, encompassing its history, cultural context, and literary traditions.
- Analyse and interpret various literary genres in Marathi literature, including poetry, fiction, drama, and literary criticism.
- Apply theoretical concepts and literary tools to assess Marathi literature's cultural, social, and political significance.
- Develop advanced research, analytical, and written communication skills through independent research projects and scholarly writing.
- Articulate and defend original ideas and perspectives on Marathi literature, both orally and in writing.
- Understand the contribution of Marathi literature to regional and national literary landscapes, recognizing its impact on cultural and intellectual discourse.
- Develop intercultural competencies and appreciate diverse perspectives within Marathi literature and society.
- Engage in ethical and responsible intellectual discourse on Marathi literature and cultural issues, demonstrating respect for diverse opinions and perspectives.

PROGRAM OUTCOMES [PG Level]

Faculty of Arts/Humanities/ Social Sciences

M.A. (HINDI)

Upon successful completion of the postgraduate Hindi program, students will:

- Demonstrate a high level of proficiency in reading, writing, speaking, and comprehension of the Hindi language.
- Possess a profound understanding of Hindi literature, encompassing its history, major authors, genres, themes, and critical approaches.
- Independently and critically analyse and interpret literary texts using appropriate theories, methods, and evidence.
- Exhibit advanced research and writing skills, including formulating research questions, conducting original research, and producing scholarly papers and presentations.
- Develop an appreciation for the cultural and historical contexts shaping Hindi literature, including its relationships with other literary traditions and social movements.
- Effectively communicate ideas in Hindi and English through various oral and written formats, such as essays, presentations, and seminars.
- Conduct themselves professionally and ethically, demonstrating respect for scholarly norms, cultural diversity, and intellectual property rights.
- Be prepared for careers in teaching, writing, journalism, translation, publishing, cultural diplomacy, international business, and further research at the doctoral level.

PROGRAM SPECIFIC OUTCOMES [UG Level]

Faculty of Science and Technology

Upon completion of the program, students will:

- Demonstrate a comprehensive grasp of fundamental concepts across various scientific disciplines, including mathematics, physics, chemistry, botany, zoology, computer science, and electronics.
- Apply analytical and critical thinking skills to identify, formulate, and solve intricate problems within the realms of science and technology.
- Cultivate proficiency in executing laboratory experiments, including data collection, result analysis, and drawing sound conclusions.
- Apply scientific methods adeptly, designing simple experiments, analyzing data, and effectively communicating findings.
- Integrate knowledge from diverse disciplines to tackle intricate scientific issues.
- Utilize mathematical and computational tools for modeling and analyzing scientific phenomena, addressing quantitative problems.
- Effectively communicate scientific information through oral, written, and visual means to both technical and non-technical audiences.
- Demonstrate ethical conduct, professionalism, and awareness of societal and environmental issues related to science and technology.
- Collaborate proficiently with peers, professionals, and interdisciplinary teams to achieve common goals and projects.
- Engage in continuous learning, staying abreast of advancements in science and technology.

PROGRAM SPECIFIC OUTCOMES [UG Level]

Faculty of Commerce and Management

Upon completion of the program, students will:

- Develop a comprehensive understanding of accounting terminologies, principles, financial statements, accounting procedures, and fundamentals of bookkeeping and ledger maintenance.
- Apply mathematical tools and techniques, including algebra, calculus, and statistical methods, to solve business problems effectively.
- Comprehend foundational aspects of commercial laws, encompassing contract law, consumer protection laws, intellectual property laws, and company law.
- Acquire knowledge in the principles of management, covering planning, organizing, staffing, directing, and controlling.
- Gain insights into starting and running a business, including market research, business planning, and funding.
- Understand financial techniques for decision-making, such as cost and management accounting, working capital management, capital budgeting, and investment appraisal.
- Grasp basic marketing principles, including market segmentation, product positioning, advertising, sales promotion, and sales management.

- Familiarize yourself with the basics of banking and financial services, covering credit functions, investment banking, money market operations, and foreign exchange management.
- Apply fundamental computer skills and learn relevant business-related computer applications.
- Develop effective communication and interpersonal skills, including the ability to present ideas, negotiate, and collaborate within teams.
- Acquire the knowledge and skills necessary for pursuing further studies or professional careers in various fields of commerce and industries.

PROGRAM SPECIFIC OUTCOMES [UG Level]

Faculty of Arts/Humanities/ Social Sciences

Upon completion of the program, students will:

- Understand and demonstrate key concepts, theories, and historical developments in the chosen subject.
- Effectively communicate in written and oral Marathi, English, and Hindi.
- Apply critical thinking skills to analyse and evaluate various perspectives on subject-related issues.
- Demonstrate proficiency in research and data analysis using appropriate methodologies.
- Interpret and analyse historical documents, grasping the historical context of events.
- Comprehend political systems, government structures, and political theories.
- Apply ethical principles in academic and community settings aligned with subject values.
- Develop a profound understanding of the societal impact of music and analyse musical traditions with cultural awareness.
- Understand and demonstrate diverse philosophical traditions through critical thinking and analytical reasoning.
- Display knowledge of literature and literary techniques in English, Marathi, and Hindi.
- Explain fundamental economic theories and concepts, including supply and demand, market equilibrium, production and costs, and macroeconomic principles.
- Apply mathematical and statistical models to analyse economic data and draw conclusions.
- Examine the impact of economic policies on sectors such as trade, taxation, globalization, inflation, and unemployment.
- Present economic and political information logically and clearly.
- Acquire collaborative skills for effective teamwork.
- Develop research, analysis, and synthesis skills.
- Gain knowledge and skills for further studies or professional careers in the arts.

PROGRAM SPECIFIC OUTCOMES [PG Level]

Faculty of Science and Technology

MASTER OF PHYSICS

Upon completion of the program, students will:

- Demonstrate proficiency in fundamental and advanced physical principles across various subfields of physics.
- Acquire a deep understanding of mathematical tools and computational methods for modelling, analysis, and experimentation in physics.
- Develop the skills to design, conduct, and analyse experiments using advanced equipment and techniques for reliable and accurate results.
- Cultivate critical thinking, problem-solving, and analytical skills to assess scientific information quality and identify open research questions.
- Enhance communication skills for effectively presenting scientific findings in both written and oral formats to diverse audiences.
- Understand ethical principles and professional values guiding scientific research practices in physics, emphasizing safety and responsible conduct.
- Gain proficiency in contemporary software, languages, and tools for physics research, including data analysis, numerical simulations, and modelling.
- Formulate scientific questions, execute research projects, and interpret numerical and experimental results.
- Develop expertise in classical mechanics, quantum mechanics, electromagnetism, and thermodynamics, applying them to interdisciplinary areas like biophysics and materials science.
- Acquire teamwork, leadership, interpersonal, and collaboration skills through group work and joint research projects.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Science and Technology
MASTER OF CHEMISTRY

Upon completion of the program, students will:

- Exhibit advanced comprehension of chemical principles and their diverse applications across various chemistry domains.
- Develop the capacity to plan, execute, and analyse chemical experiments utilizing sophisticated techniques and instruments to ensure precise and dependable results.
- Cultivate critical thinking, problem-solving, and analytical skills to assess scientific information and identify novel avenues for chemistry research.
- Demonstrate adeptness in communication skills, both written and oral, effectively presenting scientific findings to diverse audiences.
- Foster professional and ethical values, encompassing safe chemical handling, responsible research conduct, and meticulous treatment of scientific data.
- Acquire a profound understanding of advanced concepts and methodologies in distinct chemistry subfields, with a focus on organic chemistry.
- Attain proficiency in utilizing contemporary tools and software pertinent to chemical research and analysis.
- Cultivate the ability to formulate scientific questions that propel inquiry and exploration.

- Display teamwork, leadership, and collaboration skills through group work and facilitating cooperative research endeavours.
- Garner expertise in the practical facets of chemical research, including laboratory management and adept dissertation writing.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Science and Technology
MASTER OF MATHEMATICS

Upon completion of the program, students will:

- Apply mathematical methods proficiently to solve complex problems in diverse fields.
- Demonstrate analytical thinking, quantitative reasoning, and advanced problem-solving skills.
- Possess in-depth knowledge and understanding of fundamental mathematical concepts, theories, and methods.
- Exhibit competence in utilizing advanced mathematical software tools for modelling and simulations.
- Effectively communicate complex mathematical ideas to both technical and non-technical audiences.
- Be well-prepared for further education, research endeavours, or industrial roles requiring a robust mathematical foundation.
- Showcase ethical and professional behaviour when applying mathematical practices and principles.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Commerce and Management
MASTER OF COMMERCE

Upon completion of the program, students will:

- Analyse and interpret intricate business scenarios using advanced methodologies to deliver effective solutions.
- Cultivate critical thinking and problem-solving skills to assess emerging trends, issues, and opportunities across various industries.
- Communicate persuasively with stakeholders, including employees, customers, shareholders, and government agencies.
- Demonstrate proficiency in finance, accounting, marketing, and operations management for informed business decision-making.
- Utilize advanced technological tools and analytics to innovate business models and enhance organizational performance.
- Foster creativity and entrepreneurship to recognize and pursue new business opportunities.
- Exhibit a strong sense of ethical and social responsibility in decision-making and corporate governance.
- Work collaboratively in interdisciplinary teams, engaging with professionals from diverse backgrounds and cultures.

- Develop leadership competencies for effective management of people, resources, and organizational goals.
- Engage in lifelong learning and professional development to stay updated on the latest industry practices and innovations.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (ECONOMICS)

Upon completion of the program, students will:

- Demonstrate advanced comprehension of macroeconomic and microeconomic theories, principles, and models, applying them proficiently to analyze and solve intricate economic problems.
- Exhibit proficiency in statistical, mathematical, and econometric methods, utilizing relevant software for economic analysis. They will adeptly collect, process, and analyze data, yielding meaningful economic insights.
- Critically evaluate economic policies, both domestic and international, assessing their potential impact on economic growth, welfare, and inequality.
- Understand global economic issues, including trade, globalization, and international finance, and adeptly analyze their implications on the domestic economy.
- Possess strong oral and written communication skills, effectively conveying complex economic concepts and analyses to diverse audiences.
- Demonstrate an understanding of ethical and professional standards associated with economic research and analysis, adhering to these principles in their work.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (POLITICAL SCIENCE)

Upon completion of the program, students will:

- Gain a comprehensive understanding and analyze fundamental political science concepts like democracy, governance, power, and authority, applying them in practical scenarios.
- Acquire knowledge and skills for independent research, encompassing data collection, analysis, and interpretation, with the ability to present findings effectively to diverse audiences.
- Develop the capacity to assess complex political issues, identifying potential solutions within the political arena.
- Hone effective communication of intricate ideas through written and oral presentations, showcasing critical thinking in research papers, policy briefs, and other professional documents.
- Attain in-depth knowledge of the political dynamics across regions and comprehend the interrelationships among national, regional, and global political institutions.
- Cultivate a profound understanding of ethical principles, adhering to professional ethical norms.

- Apply political science theories to analyse current events, demonstrating the ability to devise practical policies in various political contexts and make informed judgments on contemporary political issues.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (HISTORY)

Upon completion of the program, students will:

- Exhibit a comprehensive grasp of key global and local historical events, themes, and issues.
- Critically evaluate and analyse historical sources, constructing sophisticated and nuanced arguments.
- Showcase advanced research skills, encompassing the identification and utilization of primary and secondary sources, original research, and the creation of substantial research papers.
- Demonstrate proficiency in written and oral communication, effectively presenting historical arguments to diverse audiences.
- Possess a deep understanding of historical methodology and debates, engaging with various historical traditions and approaches.
- Cultivate a critical awareness of contemporary issues and debates within history, reflecting on the implications of historical knowledge for present-day society.
- Exhibit the ability to work independently and collaboratively, undertaking research, presenting findings, and engaging with diverse stakeholders.
- Develop a global perspective on history, recognizing the interconnectedness of events and processes across different regions and cultures.
- Demonstrate proficiency in utilizing digital tools and techniques for historical research and presentation.
- Foster a professional attitude and ethical framework for historical research and dissemination, upholding values such as objectivity, accuracy, transparency, and respect for diverse perspectives and voices.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (ENGLISH)

Upon completion of the program, students will:

- Analyse and interpret diverse literary works and genres spanning various historical periods and geographical regions.
- Showcase advanced research skills and engage in scholarly discourse effectively.
- Apply critical and theoretical frameworks to analyse and interpret literature.
- Develop advanced writing skills, producing original scholarly work.
- Evaluate cultural, historical, and social contexts influencing literature production and reception.
- Demonstrate an understanding of diverse perspectives and experiences reflected in literature and culture.

- Communicate effectively, presenting complex ideas accurately and persuasively.
- Collaborate efficiently with peers in academic and professional settings.
- Analyse and interpret literary texts from various cultural and historical contexts.
- Exhibit critical thinking and communication skills through both written and oral modes.
- Understand and engage with major literary theories and methodologies.
- Conduct independent research using scholarly sources, drawing evidence-based conclusions.
- Evaluate literary works in terms of their social, political, and cultural relevance.
- Apply literary knowledge to broader issues and questions in the humanities and beyond.
- Develop a sophisticated understanding of the relationship between literary texts, language, and culture.
- Demonstrate the ability to produce original literary criticism and analysis.
- Apply acquired knowledge and skills in diverse professional settings, such as education, publishing, media, and the arts.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (MARATHI)

- Analyse and critically evaluate diverse literary genres, styles, and themes within Marathi literature.
- Develop proficiency in reading, writing, and speaking Marathi with clarity and fluency.
- Understand the historical, cultural, and social contexts influencing Marathi literature and literary production.
- Conduct independent research, producing scholarly work relevant to Marathi literature.
- Utilize contemporary research methodologies and critical tools to interpret Marathi texts effectively.
- Familiarity with major literary movements and prominent figures in Marathi literature.
- Recognize the role of Marathi literature in shaping regional, national, and global cultural discourses.
- Apply literary theories and critical approaches to analyse Marathi texts.
- Acquire effective communication skills to express ideas and insights related to Marathi literature, both orally and in writing.
- Demonstrate sensitivity to gender, caste, class, and identity issues within Marathi literature and its representation.

PROGRAM SPECIFIC OUTCOMES [PG Level]
Faculty of Arts/Humanities/ Social Sciences
M.A. (HINDI)

- Gain profound insights into Hindi literature, exploring its historical, cultural, social, and linguistic dimensions.
- Analyse literary texts critically, assess works within their socio-cultural context, and derive meaningful conclusions.
- Attain proficiency in both written and spoken Hindi, utilizing language resources, literature, and criticism effectively.

- Develop adept communication skills in Hindi, enabling clear and concise expression of thoughts and ideas in both oral and written forms.
- Apply critical thinking and research skills to literary texts, scrutinize arguments and assumptions, and conduct in-depth research.
- Acquire extensive knowledge of Hindi literary traditions, spanning classical, medieval, and modern genres like poetry, drama, fiction, and non-fiction.
- Cultivate an understanding of cultural nuances in Hindi literature, recognizing their impact on societal and political structures.
- Appreciate Hindi literature beyond cultural boundaries, highlighting its universal appeal and the eloquence of its expressions.
- Integrate interdisciplinary approaches into the study of Hindi literature, recognizing the richness and complexity of various theories and perspectives.

Access excellent career opportunities in academia, research, publishing, journalism, and other language and literature-related fields.

AMOLAKCHAND MAHAVIDYALAYA, YAVATMAL-445001

COURSE OUTCOME (CO)[Subjects covered under faculty of Science& Technology]

Subject- Botany		
Class	**Course**	**Outcome (Students will .....)**
B. Sc. I, Sem.-I	**Diversity and applications of microbes and cryptogams**	▪ Gain knowledge of the Plant Kingdom, encompassing the diversity of cryptogams, viruses, bacteria, and the significance of microbes in various contexts. ▪ Understand the general characteristics of algae, including their habitat, thallus organization, pigmentation, reserve food, reproduction, and classification. ▪ Acquire insights into fungi, exploring Mastigomycotina, Ascomycotina, Basidiomycotina, and Deuteromycotina, with specific examples such as Albugo, Aspergillus, and Puccinia, along with their complete life cycles. ▪ Familiarize themselves with bryophytes, examining Class Hepaticopsida and Bryopsida, focusing on genera like Marchantia and Funaria, understanding their entire life cycles. ▪ Explore the characteristics of Sphenopsida and Filicopsida, with emphasis on examples like Equisetum and Marsilea. Identify different types of steles and comprehend the evolution of the seed habit in plants. ▪ Understand the roles of algae and fungi in various industries, medicine, food and agriculture, mycorrhiza, as well as plant diseases, including viral, bacterial, and fungal diseases. ▪ Develop the ability to differentiate between Algae, Fungi, Bryophytes, and Pteridophytes. ▪ Acquire practical skills in handling laboratory equipment such as compound microscopes and dissecting microscopes, understanding their detailed structures. ▪ Learn to observe materials carefully and prepare temporary or permanent slides using different staining techniques. ▪ Gain knowledge of the internal structure, anatomy, and life cycles of Algae, Fungi, Bryophytes, and Pteridophytes through permanent slides, charts, and internet sources. ▪ Study the symptoms associated with fungal, viral, bacterial, and Mycoplasmal diseases, as well as lichens.

B. Sc. I, Sem.-II	**Gymnosperms, Morphology of Angiosperms and Plant Utilization**	▪ Gain knowledge in Paleobotany, exploring various fossil types and understanding the Geological time scale, including Eons, Eras, Periods, and Epochs. ▪ Examine fossil gymnosperms, specifically Pteridospermales and Bennettitales. ▪ Explore Gymnosperms, focusing on the classification, morphology, anatomy, life cycle, and taxonomic position of Pinus and Gnetum, emphasizing their economic importance. ▪ Understand the types and modifications of roots, stems, and leaves, including phyllotaxy and venation. ▪ Identify various inflorescences, dissect flower structures, comprehend ovule positions, and distinguish types of pollination. ▪ Classify fruits, provide examples, and analyze the morphology, varieties, and economic importance of food plants such as Wheat, Potato, Cotton, and oil-yielding plants like Groundnut. ▪ Investigate the origin, history, and economic significance of spices like Black pepper, Clove, Cinnamon, and Cardamom, as well as sources of firewood, timber, and Bamboos. ▪ Explore Pharmacognosy and Phytochemistry, with a focus on medicinal plants. ▪ Master hand techniques including cutting thin sections, staining, and mounting objects. ▪ Acquire skills in preparing double stain permanent slides for Pinus stem, needle, and Gnetum stem and leaf. ▪ Study the morphology and anatomy of Pinus, Gnetum, and fossils like Lyginopteris and Bennettites. ▪ Understand various morphological types and modifications of roots, stems, leaves, phyllotaxy, and corolla forms, as well as different types of placentation. ▪ Analyze the morphology and economic importance of medicinal plants like Aloe vera and Adathoda vasica. ▪ Evaluate the economic significance of spices such as Black pepper, Clove, Cinnamon, and Cardamom, and food plants like Wheat, Potato, Groundnut, and Cotton.
B. Sc. II, Sem.-III	**Angiosperm Systematic, Anatomy and Embryology**	▪ Explore the origin and evolution of angiosperms, gaining insights into plant nomenclature, herbarium techniques, and the significance of botanical gardens. ▪ Examine the concept of biodiversity, emphasizing its conservation through ex-situ and in-situ methods, and recognize the importance of biodiversity in ecological systems. ▪ Analyze and understand the classification systems of Bentham and Hooker, as well as Engler and Prantle, focusing on systematic studies and economic relevance of Dicotyledon families like Malvaceae, Brassicaceae, Leguminosae, and Apiaceae.

		▪ Evaluate the taxonomy, systematic studies, and economic importance of Asteraceae, Asclepiadaceae, Apocynaceae, Solanaceae, Verbenaceae, Lamiaceae, Euphorbiaceae, Liliaceae, and Poaceae. ▪ Investigate meristematic and permanent tissues, growth rings, sapwood, heartwood, primary and secondary root structures, as well as the primary structure of monocot and dicot stems, including anomalies in specific plants. ▪ Explore the internal structures of Nerium and Maize leaves, delving into the intricacies of microsporangium and megasporangium, and understanding the development of male and female gametophytes. ▪ Examine the types of ovules, double fertilization, embryo and endosperm classifications, and their biological significance. ▪ Acquire knowledge about Angiospermic families through plant taxonomy, grasp various floral structures and morphological characters, and comprehend embryology concepts using permanent slides of anther, ovule, and embryo structures. ▪ Upgrade anatomical understanding through the study of double staining, enabling the creation of permanent slides for plant materials. ▪ Develop a comprehensive understanding of plant utilization, emphasizing the economic importance of studied plant families and structures.
B. Sc. II, Sem.-IV	**Cell Biology, Genetics and Biochemistry**	▪ Understand the Cell cycle, Mitosis, and Meiosis, enabling them to recognize and differentiate between their various stages. ▪ Explore Genetics, delving into Mendel's contributions to inheritance and comprehending Mendel's laws. ▪ Analyze Monohybrid and Dihybrid ratios, grasping their practical implications, and develop problem-solving skills in gene interaction. ▪ Gain proficiency in Biochemistry, demonstrating the identification of starch, proteins, and lipids.
B. Sc. III, Sem.-V	**Plant Physiology and Ecology**	▪ Recognize the significance of water in plant life, exploring both active and passive water absorption, the ascent of sap, transpiration, and mineral uptake. ▪ Comprehend the principles of photosynthesis and respiration in plants. ▪ Gain insight into tropic and nastic plant movements, along with an understanding of stress, distinguishing between biotic and abiotic factors. ▪ Acquire knowledge on photoperiodism, the role of phytochrome, concepts of florigen and vernalization, and how plants respond to light and temperature.

		▪ Grasp the components of the environment, the scope, and importance of ecology, including ecological factors, edaphic factors, and ecological adaptations. ▪ Understand the concepts of ecosystems, delving into their structure and function, ecological succession, various ecosystem types, and population ecology. ▪ Recognize the importance of the subject, emphasizing departmental discipline, laboratory environments, and equipment, while also fostering a sense of true nationalism and Indian identity. ▪ Gain historical insights into plant physiology, understanding plant-water relations, and related topics. ▪ Familiarize yourself with plant metabolism, plant growth, plant responses, and related subjects. ▪ Explore topics in ecology and the environment, covering ecosystems and related areas. Cultivate both theoretical and practical knowledge in the subject.
B. Sc. III, Sem.-VI	**Molecular Biology and Biotechnology**	▪ Explore the historical development, chemical composition, and the double helical model of DNA. ▪ Examine eukaryotic replication, DNA packaging, satellite DNA, repetitive DNA, and Transposable elements. ▪ Understand the concept of genes, fine gene structure, central dogma, types of RNA, genetic code, ribosomal structure, and eukaryotic transcription and translation. ▪ Investigate the regulation of gene expression in Prokaryotes and Eukaryotes, protein folding mechanisms, protein structure, sorting, and trafficking. ▪ Gain insights into recombinant DNA technology, including restriction enzymes, cloning vectors, gene transfer techniques, and PCR. ▪ Comprehend plant tissue culture, exploring growth hormones, cellular totipotency, differentiation, morphogenesis, callus culture, and micropropagation. ▪ Recognize the applications of biotechnology in agriculture, industry, healthcare, and conservation. ▪ Acknowledge the historical significance and importance of Molecular Biology and Biotechnology. ▪ Familiarize yourself with the nature, ultrastructure, chemical composition, and functions of DNA molecules. ▪ Acquire knowledge about Genetic Engineering, Plant tissue culture, and various applications of Biotechnology. ▪ Appreciate the importance of both theoretical and practical aspects of the subject. ▪ Understand the broader context, including the significance of departmental discipline, laboratory environment, equipment, and the role of being a true nationalist and Indian citizen.

Subject- Chemistry		
Class	**Course**	**Outcome (Students will .....)**
B. Sc. I, Sem.-I	**Paper- I: Periodic Properties and Ionic bonding, s-Block and p-Block elements, Electron displacements, Reactive intermediate and Aliphatic hydrocarbon, Aromatic hydrocarbons, Thermodynamics, Gaseous state and Phase Rule**	▪ Utilize knowledge of periodic trends in atomic and ionic radii, ionization energy, and electron affinity to solve conceptual questions. ▪ Apply the principles of acids, bases, non-aqueous solvents, and their industrial applications. ▪ Analyze reaction intermediates, delve into functional group chemistry, and understand methods of preparation, properties, and reactions with mechanisms. ▪ Select appropriate synthetic approaches for preparing derivatives of industrially important molecules. ▪ Solve numerical problems related to the gaseous and liquid states of varying difficulty. ▪ Demonstrate proficiency in filtration, crystallization, melting point determination, and waste management processes. ▪ Grasp the orientation effect of a group and its impact. ▪ Perform single-stage preparations following provided procedures. ▪ Determine melting points and percentage yields. ▪ Elaborate on reactions and their mechanisms in single-stage preparations. ▪ Calculate percent yield using relevant formulas. ▪ Separate basic and acidic radicals from given mixtures. ▪ Identify cations and anions in mixtures through various tests.
B. Sc. I, Sem.-II	**Paper- II: Polarization, Covalent bonding, Acids & Bases, P-block elements, Noble gases and Non-aqueous solvent, Alkyl halides, Aryl halides and Alcohols, Phenol, ether and**	▪ Apply acquired knowledge in bonding, solvation, hybridization, and molecular geometries to draw accurate molecular structures, bond orders, and bond lengths. ▪ Synthesize commercially significant compounds with diverse carbon backbones, utilizing appropriate synthetic approaches for derivatives of industrially vital molecules. ▪ Demonstrate proficiency in solving numerical problems related to the crystalline state and utilize chemical kinetics to deduce reaction mechanisms. ▪ Conduct experiments with precision and safety, qualitatively analyze organic compounds through various tests, detect elements, and determine functional groups.

	epoxides, Physical properties & Molecular structure, Chemical Kinetics	▪ Prepare derivatives of provided substances and accurately determine melting points, comparing obtained values with reported data. ▪ Skillfully measure surface tension and viscosity of liquids, calculating, communicating, and analyzing results effectively. ▪ Evaluate the cleansing capacity of detergent samples and predict the endothermic or exothermic nature of processes based on the heat of solution of a salt.
B. Sc. II, Sem.-III	**Paper- III: Covalent Bonding, Metallic Bonding, VSPER Theory, Volumetric Analysis, Gravimetric Analysis, Aldehydes and Ketones, Carboxylic Acids, Optical isomerism. Geometric isomerism &Conformational isomerism, Thermodynamics& Equilibrium Phase Equilibrium, Liquid state & Electrochemistry**	▪ Explore fundamental concepts and various types of chemical bonding, along with the laws, rules, and equations governing bond formation, solubility, and molecular hybridization. ▪ Examine modern perspectives on chemical bonding, specifically the Molecular Orbital Theory ▪ Gain proficiency in quantitative estimation through Volumetric and Gravimetric analysis. ▪ Investigate the properties and reactions of carbonyl compounds (aldehydes, ketones, and acids) and delve into the associated reaction mechanisms. ▪ Acquire a foundational understanding of Optical, Geometrical, and Conformational Isomerism, emphasizing the stability of organic compounds based on Bayer's strain theory. ▪ Explore the applications of Thermodynamics in Colligative Properties and Phase Equilibrium. ▪ Study surface tension and viscosity in detail. ▪ Comprehend the variation in the conductance of weak electrolytes concerning dilution and temperature, including the determination of Dissociation constants using Kohlrausch's law. ▪ Develop skills in preparing standard solutions. ▪ Apply knowledge in titration techniques, performing various types of titrations ▪ Anayze and interpret experimental observations, evaluating results and comparing them with theoretical expectations. ▪ Understand the principles and procedures involved in gravimetric analysis.
B. Sc. II, Sem.-IV	**Paper- IV: Chemistry of elements of Transition Series& Exaction of elements, Inner transition elements& General properties of Metallurgy, Polynuclear Hydrocarbons &Reactive Methylene Compounds,**	▪ Explore the chemical and physical properties of d-Block elements and their compounds, delving into extraction methods for various elements. ▪ Gain comprehensive knowledge of Lanthanides, covering Electronic configuration, Atomic and ionic radii, Oxidation states, Magnetic properties, Color of salts, and Complex formation behavior. ▪ Understand the classification of structure, properties, reactions, and applications of Polynuclear hydrocarbon, carbohydrate molecules, and reactive methylene compounds. ▪ Dive into the detailed study of the preparation, properties, chemical reactions, and mechanisms of Amides, Amines, Diazonium salts, and Amino-acids. ▪ Explore the applications of Thermodynamics in Colligative Properties.

	Aromatic Nitro compounds, Amino compounds, Diazonium salts& Amino acids and Proteins, Colligative properties of dilute solutions, Crystalline state	▪ Familiarize themselves with the Law of rational indices, Weiss and Miller indices, and Laws of Crystallography, Crystal Planes. ▪ Develop practical skills in creating chromatographic chambers and analyzing binary mixtures through chromatography. ▪ Apply acquired knowledge to conduct complexometric titrations. ▪ Analyze data obtained from colorimetric or spectrophotometric titrations. ▪ Gain insights into various isolation processes. ▪ Evaluate observations and interpret results from conducted experiments.
B. Sc. III, Sem.-V	**Paper- V: Coordination Compounds and Chelates, Crystal Field Theory (CFT) Electronic Spectra of Transition Metal Complexes, Heterocyclic compounds, Organometallic compounds, Dyes:, Drugs and Pesticides, Photochemistry, Molecular Spectroscopy**	▪ Comprehend the essential characteristics of coordination compounds, including various structures, and grasp concepts such as oxidation number, coordination number, ligands, chelates, and complex stability. ▪ Apply crystal field theory to comprehend the splitting in complexes and understand the factors influencing crystal field splitting. ▪ Gain insight into heterocyclic compounds, focusing on their synthesis, reactivity, and applications in advanced chemical synthesis. ▪ Categorize dyes based on structure and application, and explore the preparation and uses of dyes, drugs, and pesticides. ▪ Understand photochemical and thermal reactions resulting from the interaction of radiation with matter. ▪ Identify the electric and magnetic properties of radiation and become familiar with spectroscopic techniques for understanding atomic and molecular structures. ▪ Perform laboratory tasks to prepare metal complexes and analyze their structures. ▪ Prepare and comprehend the applications of Prussian blue. ▪ Study the structure and acquire knowledge to prepare crystals of chrome alum. ▪ Explore electroanalytical techniques through conductance and emf measurements. ▪ Apply basic knowledge to determine the strength of given solutions using conductometric methods. ▪ Analyze observations and interpret experimental results using graphical representations.
B. Sc. III, Sem.-VI	**Paper- VI: Kinetic Aspects of Metal Complexes,**	▪ Grasp the thermodynamic and kinetic stability of complexes, along with understanding complex geometries. Learn spectrophotometric techniques for metal ion concentration determination. Define and categorize chromatographic methods.

	Spectrophotometry and Colorimetry, Paper Chromatography, Organometallic Chemistry, Inorganic Polymers, Bioinorganic Chemistry, Electronic spectroscopy and Infrared spectroscopy, NMR spectroscopy and Mass spectroscopy, Elementary Quantum Mechanics, Electro-chemistry and Nuclear Chemistry	▪ Acquire foundational knowledge in organometallic chemistry, inorganic polymers, and bio-inorganic chemistry. Gain insight into the biological roles of metal ions. ▪ Master the identification of compound structures through electronic and infrared spectroscopy. Understand the significance of Nuclear Magnetic Resonance spectroscopy and mass spectrometry in organic compound determination. ▪ Comprehend the limitations of classical mechanics, discern differences between classical and quantum mechanics, and derive Schrodinger's wave equation with applications. ▪ Recognize chemical-to-electrical energy interconversions through electrochemistry. Grasp the fundamental concepts of nuclear chemistry and the applications of radioisotopes in industry, agriculture, medicine, and biosciences. ▪ Achieve a comprehensive understanding of iodometric sample estimation. Learn the skills to prepare standard titration solutions. ▪ Apply basic knowledge to determine the dissociation constant of weak acids conduct metrically. ▪ Determine soil sample pH and conduct strong acid and base titrations using pH-Metry. ▪ Understand the principles of colorimetry to verify Beer-Lambert's law. ▪ Analyze observations and interpret experiment results graphically.
M.Sc. I Sem.-I	**Paper- I: Inorganic Chemistry-I prediction of shapes of molecules**	▪ Analyze bond nature and properties using diverse electronic structural methods and bonding models in the context of Inorganic Chemistry-I. ▪ Relate magnetic characteristics of complexes to ligand field strength. ▪ Establish connections between structure, bonding, and reactivity in boron clusters. ▪ Appreciate specialized and advanced topics within inorganic and coordination chemistry. ▪ Identify and assign symmetry characteristics to molecules and objects. ▪ Determine the point group of elements and construct character tables. ▪ Apply aromaticity rules to analyze organic molecules effectively.
	Paper- II: Organic chemistry-I & Lab-1	▪ Apply aromaticity rules to manipulate organic molecules. ▪ Illustrate organic molecules using various projection formulas and determine their configurations. ▪ Demonstrate understanding of industrially significant organic reactions, considering chemo-selectivity, regioselectivity, and enantioselectivity. ▪ Analyze product distribution and stereochemistry in diverse organic reactions. ▪ Evaluate organic reactions considering the influence of substituents on substrate molecules. ▪ Design organic reactions to achieve specific product(s). ▪ Develop methodologies for eco-friendly and green technology in both industry and research.

		▪ Propose methods and remedies to address environmental pollution resulting from reactions. ▪ Communicate scientific practical information effectively, both orally and in writing. ▪ Foster awareness of laboratory safety and chemical handling. ▪ Apply various purification techniques such as recrystallization, thin-layer chromatography, distillation, and solvent extraction.
	Paper- III: **Physical chemistry-I & Lab-II**	▪ Grasp fundamental principles of quantum mechanics, surface chemistry, thermodynamics, and electrochemistry. ▪ Apply quantum mechanics concepts to tackle complex issues related to atomic entities' shapes, sizes, and energy. ▪ Acquire skills to identify and utilize colloidal substances and micelles effectively. ▪ Execute theoretical and experimental processes using thermodynamics and electrochemical principles. ▪ Solve numerical problems associated with quantum mechanics, thermodynamics, and electrochemistry. ▪ Demonstrate the ability to choose appropriate indicators for titrations. ▪ Enhance scientific proficiency in data collection and analysis. ▪ Develop methods for estimating the concentration of electrolytes in mixtures through potentiometry. ▪ Analyze and interpret graphs in conductometric titrations. ▪ Gain proficiency in handling electroanalytical instruments in a laboratory setting. ▪ Apply the concept of critical micellar concentration to assess the cleaning power of detergents.
	Paper- IV: **Modern methods of separation**	▪ Evaluate contemporary separation methods, assessing specific analytical techniques tailored to samples and target analytes. ▪ Cultivate analytical proficiency and critical thinking for selecting appropriate statistical methods, ensuring meaningful and productive interpretation. ▪ Comprehend the underlying principles of chromatographic techniques and adeptly choose the most suitable one from available options. ▪ Establish connections between indicators employed in various titration types, enhancing understanding and application. ▪ Investigate electroanalytical techniques through conductance and emf measurements, contributing to a comprehensive skill set.

		▪ Skillfully design buffer systems to achieve the desired pH, showcasing a practical understanding of buffer composition. ▪ Gain comprehensive knowledge of Gas Chromatography, High-Performance Liquid Chromatography (HPLC), GC-Mass Spectrometry (GC-MS), and LC-Mass Spectrometry (LC-MS) applications, along with troubleshooting problem scenarios.
M.Sc. I Sem.-II	**Paper- V: Co-ordination Chemistry& Inorganic Chemistry & Lab-IV**	▪ Recall electronic structure, bonding, and reactivity principles of coordination complexes. ▪ Grasp synthesis and stability concepts of transition metal organometallic complexes. ▪ Develop catalytic pathways for desired product formation. ▪ Apply transition metal coordination complex principles in understanding biological system functions. ▪ Identify medicinal applications of inorganic compounds. ▪ Interpret photochemical properties of coordination complexes. ▪ Apply knowledge to qualitatively identify elements in mixtures for industrial and research applications. ▪ Create methods for estimating elements/metals from complexes. ▪ Enhance skills in separating, identifying, and removing interfering radicals. ▪ Gain insights into developing spot tests for different elements. ▪ Comprehend the importance of metal complexes and green synthesis methods.
	Paper- VI: Organic chemistry-II	▪ Analyze and predict the orientation and stereochemistry of addition reaction products. ▪ Evaluate and predict the orientation and stereochemistry of elimination reaction products. ▪ Apply enolate chemistry principles to enhance molecular complexity in organic compounds. ▪ Develop the ability to design organic reactions strategically for the synthesis of specific products. ▪ Formulate environmentally friendly, green chemistry synthesis strategies to maximize atom economy.
	Paper- VII: Physical chemistry-II & Lab-III	▪ Demonstrate proficiency in utilizing chemical dynamics to address challenges in enzyme kinetics, fast reactions, and complex reactions. ▪ Comprehend the computation of energy levels through wave functions, grasping the physical aspects of bonding and anti-bonding wave functions. ▪ Acquire knowledge about various types of polymers, their characterization, polymerization mechanisms, and practical applications. ▪ Gain insight into the electrochemistry of solutions, experimental techniques, corrosion types, corrosion inhibitors, and corrosion monitoring.

		▪ Grasp the fundamentals and advanced principles of statistical thermodynamics and reaction kinetics. ▪ Apply the acquired knowledge of statistical thermodynamics and reaction kinetics to solve intricate problems.
	Paper- VIII: Optical Methods and Environmental chemistry	▪ Comprehend essential aspects to design experiments utilizing optical and electroanalytical techniques. ▪ Acquire knowledge to articulate the principles and applications of molecular absorption and molecular emission spectroscopy. ▪ Gain an understanding of water pollution, including its classification, causes, consequences, and preventive methods. ▪ Explore the realm of air pollution, covering classification, causes, consequences, and preventive strategies. ▪ Delve into soil pollution, encompassing its classification, causes, consequences, and preventive measures.
M.Sc. II Sem.-III	**Paper- IX: Spectroscopy-I**	▪ Gain advanced insights into the interactions between electromagnetic radiation and matter, exploring their diverse applications in spectroscopy. ▪ Apply molecular symmetry formalisms to predict spectroscopic properties effectively. ▪ Analyze and interpret spectroscopic data using methods covered in the course, addressing challenges related to chemical structure, purity, and concentration. ▪ Resolve problems by selecting appropriate spectroscopic methods to investigate molecular interactions, interpreting resulting data comprehensively. ▪ Interpret UV-visible spectroscopy, understanding its fundamental principles and applications in the context of organic compounds. ▪ Interpret IR spectroscopy, grasping its basic principles and applications for functional group analysis. ▪ Comprehend NMR spectroscopy, including its fundamental principles and applications for structural analysis. ▪ Interpret elemental analysis through mass spectrometry. ▪ Integrate information from various spectroscopic techniques to determine molecular structures in the realm of organic chemistry.

	Paper- X: Analytical Chemistry- I	▪ Comprehend the principles, instrumentation, and applications of thermal methods of analysis and thermometric titrations. ▪ Gain insight into the theory, instrumentation, applications, as well as advantages and disadvantages of high-frequency titrations, electrogravimetry, and coulometry. ▪ Acquire knowledge about the principles, types, and applications of chemical sensors, biochemical sensors, biosensors, and ion-selective electrodes. ▪ Familiarize yourself with various electroanalytical techniques, including polarography, voltammetry, chronopotentiometry, and amperometric titrations. ▪ Develop an understanding of bio-analytical chemistry, exploring applications in spectrophotometry, spectrofluorimetry, ultracentrifugation, gel electrophoresis, and toxicology.
	Paper- XI: Special Paper-I, Organic Synthesis-I	▪ Demonstrate a comprehensive understanding and recall of fundamental organic chemistry principles, encompassing chemical bonding, stereochemistry, and reaction mechanisms. ▪ Apply synthetic reagents proficiently in the synthesis of organic compounds, emphasizing practical skills in both synthesis and analysis. ▪ Identify and manipulate functional groups through addition and elimination processes, predicting reactivity based on compound structure. ▪ Justify chemical reaction mechanisms and predict the outcomes of organic compound reactivity. ▪ Cultivate basic skills for multi-step organic synthesis, incorporating modern named reactions with an emphasis on chemical structures, stereochemistry, and mechanisms. ▪ Utilize synthesis methodologies for advanced organic synthesis, incorporating chemo-, regio-, and stereoselective concepts. ▪ Construct reaction pathways for complex organic compounds using retro synthetic analysis, demonstrating a deep understanding of organic synthesis strategies. ▪ Analyze and apply principles of stereo selectivity, catalysis, and metal organic chemistry in organic-chemical reactions for effective synthesis. ▪ Gain an in-depth understanding of research-based approaches in the design and production (synthesis) of complex molecules within the field.
	Paper- XII: Special Paper-II (Natural Products)	▪ Investigate diverse sugars, delving into methods for structure determination and ring size analysis. ▪ Explore the types, structures, and functions of lipids. ▪ Acquire knowledge about the structures, stereochemistry, synthesis, and reactions of amino acids, proteins, and peptides. ▪ Comprehend the mechanisms of action, orientation, steric effects, and reactions of enzymes.

		▪ Study the classification, nomenclature, occurrence, isolation, and structural determination of alkaloids and terpenoids. ▪ Learn about the occurrence, nomenclature, structure, stereochemistry, synthesis, and reactions of steroids and hormones. ▪ Understand the occurrence, classification, biogenesis, physiological effects, and synthesis of prostaglandins, pyrethoids, rotenones, and pheromones. ▪ Explore the structure, synthesis, and chemistry of Vitamins and Natural Pigments.
M.Sc. II Sem.-III	**LAB-V**	▪ Estimate the quantity of copper (II) with EDTA photometric titration ▪ Investigate the amount of Ca ion content in Calk/Milk sample by permagnetometry and drug sample by complexometry ▪ Study the amount of ascorbic acid from biological samples and phosphate from plant sample by spectrophotometr ▪ Find out the parameter such as Hardness, pH, alkalinity, Chloride, DO, COD etc from water samples ▪ Determine stability constant and stoichiometry of Ferric-thiocyanate complex by spectrophotometrically ▪ Know the Separation and estimation of Fe3+ and Mg2+ by solvent extraction
M.Sc. II Sem.-III	**LAB-VI**	▪ Syntheses benzilic acid by following green principles such as non-hazardous solvent, atom economy ▪ Determine saponification value, iodine value of oil extracted from oil seed such as groundnut ▪ Estimate the Nitrogen, Sulphur and Halogen from organic samples using various technique ▪ Estimate the Cholesterol and Caffeine by spectrophotometrically ▪ Monitor the progress of the reaction and consumption of substrate molecule during the reaction using Thin Layer Chromatograph ▪ Syntheses organic compounds in two/three steps and purify using recystallisation as well as column chromatography ▪ Calculate Theoretical and practical % yield for product conformation ▪ Give the theoretical IR and NMR values of substrate, intermediate and final product.

M.Sc. II Sem.-IV	**Paper- XIII: Spectroscopy-II**	▪ Apply Raman spectroscopy principles to analyze organic molecules. ▪ Explore the interaction of X-rays with matter, focusing on scattering and diffraction phenomena. ▪ Present Electron Spin Resonance (ESR) spectra and utilize ESR for studying free radicals, determining structures, and analyzing reaction velocities. ▪ Investigate the structural elucidation of inorganic molecules. ▪ Solve challenges related to organic molecules by employing UV, IR, 1H NMR, and 13C NMR techniques.
	Paper- XIV: General Analytical Chemistry	▪ Understand the principles and operation of proportional counters, Geiger-Muller counters, and scintillation counters, including semiconductor detectors like HPGe. ▪ Identify the types of reactions employed in fluorimetric analysis, and evaluate the advantages, disadvantages, and applications of real-time processing (RTP). ▪ Gain knowledge of principles, atomization, and excitation in analytical chemistry, covering ICP sources, instrumentation, and applications of FIA techniques. Explore sample pretreatment in packed reactors, components of FIA apparatus, factors influencing FIA, and its diverse applications. ▪ Develop proficiency in determining minerals, vitamins, antioxidants, toxins, and preservatives. Acquire a general understanding of drug properties for characterization and quantification. ▪ Explore the classification of fuel analysis, recognizing its advantages and disadvantages, and understanding the classification of poisons.
	Paper- XV: Special Paper-III Organic Chemistry-III	▪ Gain proficiency in the understanding and application of organometallic reagents, exploring their significance in organic synthesis. ▪ Acquire knowledge of catalysis, hydrogenation processes, and key catalysts like Wilkinson catalyst, emphasizing their roles in organic transformations. ▪ Comprehend the synthesis, structure, bonding, properties, and reactivity of both main group and transition metal organyls, with a focus on industrial catalytic processes. ▪ Analyze bonding in olefin, acetylene, and allyl systems, while exploring synthesis, structure, and bonding in metallocenes. ▪ Explore transformations for C-X and C-C bond formation, emphasizing functional group reactivity, chemoselectivity, and regioselectivity in multistep synthesis strategies. ▪ Engage with advanced topics such as strategy/retrosynthesis, aromatic chemistry, protecting groups, stereochemistry, enolates, carbonyl chemistry, alkene synthesis, reduction/oxidation, heterocycles, and modern synthesis methods.

		▪ Develop the ability to identify, analyze, and evaluate synthetic routes through retrosynthesis, with a focus on the increasing structural complexity of drug molecules. ▪ Apply stereochemical concepts like chirality, stereoisomerism, and stereoselectivity in chemical transformations, incorporating organometallic reagents in organic synthesis. ▪ Demonstrate the capacity to plan and design experimental setups for various laboratory tests, executing transformations crucial for organic synthesis. ▪ Understand functional group protection, including the protection of significant functional groups. ▪ Explore the synthesis of heterocyclic compounds, recognizing their importance in medicinal drugs and mastering techniques for their synthesis. ▪ Gain in-depth knowledge of various heterocyclic compounds, such as pyrole, pyridine, quinolene, thiophene, furan, etc., understanding their synthesis, properties, and applications. ▪ Delve into the detailed chemistry of specific heterocyclic compounds, including Pyrozole, imidazole, oxazole, thiazole, thiazine, diazines, triazines, pyrimidines, pyrazines, zepines, oxepines, Indoles, Benzofurans, Quinolines, Flavones, Chromones, Coumarins, Phenithiazines, and Azitidines, recognizing their significance in organic chemistry.
	Paper- XVI: **Special Paper-IV: Applied and Medicinal Chemistry**	▪ Acquire knowledge in terms, nomenclature, classification, synthesis, mechanism, and assay of drugs. ▪ Gain an understanding of drug classification based on applications, including synthesis, mode of actions, pharmacokinetics, pharmacodynamics data, and secondary metabolism. ▪ Comprehend the classification of drugs, along with the procedures, types, various theories, and concepts involved in drug designing.
	LAB-VII	▪ Separate, purify and identify of unknown ternary mixture ▪ Determine the elements, functional group, MP/BP and prepare the derivative ▪ Interpret and solve the combine spectra of organic compounds using NMR, IR, UV and Mass spectroscopy ▪ Learn ChemDraw software for organic compound identification. ▪ Syntheses anaesthetic drug Benzocaine, anticancer drug 6-methyl uracil, anticonvulsant. Drug 5,5-Diphenylhydantoin ▪ Extract Limonene (essential oil) from orange by steam Distillation.

M.Sc. Part-II, Sem-IV	**LAB-VIII-Project Work/ Dissertation**	▪ Acquire skills to collect literature hypothized based on their topics in first part of project ▪ Know the various structural characterization techniques ▪ Develop the practical skill for synthesis, collect experimental data, finding physical constants, analyse the compounds using appropriate analytical technique and tools like Chemdraw and Origin Lab data processing ▪ Apply theoretical knowledge in practical lab for experimental set up ▪ Communicate their research findings through written reports, manuscript, presentations, and possibly scientific publications ▪ Get the position as Project assistant in various research Lab and Job in industry based on project work.
Computer Science		
Class	**Course**	**Outcome (Students will .....)**
B. Sc. I, Sem.-I	**Computer Fundamentals & C Programming**	▪ Grasp the fundamentals of computers, including their characteristics and generational aspects. ▪ Understand memory and its types, along with various printer types. ▪ Familiarize themselves with DOS concepts, the booting process, and essential DOS commands. ▪ Explore external commands like FORMAT, XCOPY, CHKDSK, PATH, ATTRIB, AUTOEXEC.BAT. ▪ Introduce Windows features and comprehend number systems: decimal, binary, octal. ▪ Gain insights into the concept of the Internet, different connection types, and protocols like TCP/IP, FTP, HTTP. ▪ Understand domain names, email addresses, WWW, web browsers (Internet Explorer, Netscape Navigator), and search engines. ▪ Develop a foundation in programming concepts, algorithms, flowcharting, and the structured programming process. ▪ Study the history, structure, and features of C programming. ▪ Explore elements of C, including header files, character sets, keywords, identifiers, constants, variables, and operators.

		▪ Grasp formatted and unformatted I/O operations, control structures (if, if...else, nested else, conditional operator, for, do, do...while), and loop control statements. ▪ Acquire practical skills in word processing, spreadsheet use, and presentation software, including printing capabilities. ▪ Demonstrate proficiency in DOS operations using commands and navigate the web with various search engines. ▪ Develop email communication skills, including constructing and sending emails with attached documents. ▪ Design and implement solutions to real-life problems using C programming.
B. Sc. I, Sem.-II	**Computer Fundamentals & C Programming**	▪ Grasp the fundamentals of data structures, including their definition, types, and operations, with a focus on linear arrays and stacks. ▪ Gain proficiency in understanding and working with queues, linked lists, binary trees, and operations such as traversal, insertion, deletion, sorting, and searching. ▪ Acquire a solid understanding of arrays, pointers, and strings, enabling the design and implementation of diverse programs. ▪ Master the concepts of functions, covering definition, invocation, return values, recursion, and distinctions between local and global variables. ▪ Familiarize yourself with structures, including declaration, definition, variable access, arrays of structures, nested structures, unions, and file handling. ▪ Develop the ability to design and implement solutions for real-life problems using data structures and advanced C programming.
B. Sc. II, Sem.-III	**Object Oriented programming with C++ & Web Technology**	▪ Grasp HTML language concepts, understanding HTML document structure, elements, attributes, and tags. ▪ Explore XML, including features, components, elements, attributes, DTD (Document Type Definition), and the need for declaring attributes. ▪ Gain proficiency in style sheets, their types, and properties like text, font, color, background, border, display, height, line-height, margin, and width. Apply CSS to HTML and XML. ▪ Comprehend Object-Oriented Programming concepts, covering features, advantages, applications, tokens, basic data types, constants, variables, symbolic constants, and dynamic initialization.

		▪ Understand control and looping structures, functions, passing and returning objects, inline and friend functions, function overloading, scope resolution operator, and implicit/explicit type conversions. ▪ Grasp the concept of classes and objects, defining/accessing data members, member functions, managing I/O operations, and constructor/destructor types (default, parameterized, copy). ▪ Develop skills to design web pages using HTML, XML, and CSS. ▪ Apply C++ Object-Oriented Programming to design and implement solutions for real-life problems.
B. Sc. II, Sem.-IV	**Advanced C++ and Web Designing**	▪ Comprehend the principles of Object-Oriented Programming (OOP), including its features, advantages, and applications. Understand the concepts of classes, objects, data members, and member functions. Proficiently manage I/O operations, manipulators, and utilize new, delete, and various operators. ▪ Demonstrate a comprehensive understanding of functions, including passing and returning objects. Grasp the concept of inheritance, exploring single, multilevel, multiple, hybrid, and hierarchical inheritances. Apply templates effectively. ▪ Gain proficiency in handling different visibility modes, pointers to derived classes, dynamic binding, and virtual functions. Comprehend rules for virtual functions and abstract base classes. Develop skills in working with files, stream classes, file opening/closing, and file input/output with stream classes. ▪ Acquire knowledge about XML, including its features, components of XML documents, elements, attributes, and Document Type Definition (DTD). Understand the need for DTD, declaring attributes, and the types of attributes. Explore Internal and External DTD. ▪ Explore style sheets, their types, and various properties such as text, font, color, background, border, display, height, line-height, margin, and width. Implement CSS with HTML and XML. ▪ Compare DTD with Schema elements, understand element types, element attributes, XML schema data types, and the process of converting DTD to schema. Delve into namespaces, refit namespaces, scope of namespaces collusion, and applications. ▪ Design diverse web pages using HTML, XML, and CSS. ▪ Develop and implement solutions for real-life problems using advanced C++ programming skills.
B. Sc. III, Sem.-V	**RDBMS & V.B.**	▪ Comprehend the fundamental principles of Database Management Systems (DBMS) including comparisons with traditional file approaches, storage structures, data representation, and various database models.

		▪ Gain insight into relational models, encompassing relations, domains, attributes, keys, E-R diagrams, tables, and diverse normalization techniques. ▪ Acquire proficiency in SQL, encompassing data types, operators, and various Data Definition Language (DDL) and Data Manipulation Language (DML) commands. ▪ Develop a comprehensive understanding of Visual Programming environments, covering elements such as the New Project window, property window, Form layout window, toolbar, menu bar, Form properties, pointer tool, label control, text box, and command button. ▪ Master the creation of menus, utilizing Application Wizard for menu data types and variables, along with an understanding of various operators and control structures. ▪ Explore Internal Functions, including Msgbox, named constants, default button, and Visual Basic (VB) programming techniques such as private and public procedures, data passing by reference and value, and passing control as arguments. ▪ Apply RDBMS technology to design and implement solutions for real-life problems. ▪ Apply Visual Basic (V.B.) Programming skills to design and implement solutions for real-life problems.
B. Sc. III, Sem.-VI	**PL/SQL & Advanced V.B.**	▪ Comprehend the fundamental concepts of PL/SQL, including various categories of functions such as Number, Character, and Conversion functions. ▪ Gain insight into PL/SQL features, block structure, variables, constants, data types, and control structures. Explore the concept of Cursors, their types, and operations like opening, closing, using, and fetching data. Delve into Trigger concepts and their types. ▪ Understand the intricacies of transactions, including commands like Rollback, Commit, and Save point. Explore database security concepts, privilege types, and commands like Grant and Revoke. Examine the concepts of table and row locking. ▪ Grasp the importance of dialog box control, including adding, producing various dialog boxes, managing mouse responses, and controlling multiple list boxes. ▪ Familiarize with forms, their collection, access, upload, text placement, formatting with print, print methods, and incorporating toolbars on forms. ▪ Gain proficiency in working with files, utilizing statements like Open and Close, understanding file modes, file locking, and handling sequential and random-access files. Explore user-defined data types, file control, and relevant commands. ▪ Develop the ability to design and implement solutions for real-life problems using Advanced Visual Basic programming.

		▪ Develop the ability to design and implement solutions for real-life problems using PL/SQL programming.
Subject- Electronics		
Class	**Course**	**Outcome (Students will be able to.....)**
B. Sc. Part-I, Sem.-I	**Basic of Electronics**	▪ Apply foundational principles of Electronics to discuss measurements and meter reading. ▪ Solve problems related to Resistance, Network, and Instrument development. ▪ Compare various Sensor and actuator types, explaining their significance, properties, and applications in signal processing. ▪ Utilize and explain diverse sensor, actuator, and plotter types. Analyze biasing circuits, Noise types, and distortions in electronic circuits. Examine the low, middle, and high-frequency response of biomedical instrumentation. ▪ Analyze and explain the concept of signal condition feedback, covering characteristics, principles of operation, and the design of biomedical instrumentation. ▪ Identify and use various electronic components and instruments, including handling equipment like Cathode Ray Oscilloscope and Function generators. ▪ Engage in virtual practical execution using the Virtual lab by IITK and IITB. Design and study oscillators, Multi-vibrators, and amplifiers. ▪ Analyze observations and interpret experiment results. Compare theoretical and experimental outcomes, determining percentage errors. ▪ Acquire skills in finding faults in experimental units and soldering electronic components in circuits.
B. Sc.-Part-I, Sem.-II	**Digital Electronics**	▪ Demonstrate problem-solving proficiency in digital logic, network, state logic development, and IC stage application. ▪ Evaluate different types of Logic ICs, exploring their functions, significance, and applications in decision-based signal processing. ▪ Explain and apply properties of logical states in design, addressing diverse logical state types. ▪ Investigate biasing circuits, discuss noise/distortions, and define logic states in digital electronic circuits, interpreting responses of IC families.

		▪ Comprehend signal conditioning principles, designing logical instrumentation for various applications. ▪ Develop skills for fault finding in experimental units and soldering electronic components. ▪ Proficiently operate equipment such as Cathode Ray Oscilloscope, Function Generators, Pulse Analyzer, and Clock Cycles ▪ Identify and utilize various digital electronic components and instruments. ▪ Engage in virtual practical execution using IITK and IITB Virtual Labs. ▪ Design, study, and simulate various logical instruments. ▪ Analyze and interpret experimental results, comparing theoretical and experimental outcomes while determining percentage error.
B. Sc. Part-II, Sem.-III	**Electronic Devices and Circuit**	▪ Apply fundamental Electronics principles to discuss and elucidate measurements, meter readings, and problem-solving related to Resistance, Network, and Instrument development. ▪ Compare diverse types of Sensors and actuators, highlighting their significance, properties, and applications in signal processing. ▪ Utilize and articulate various types of sensors, actuators, and plotters. ▪ Analyze different biasing circuits, examine types of Noise and distortions in electronic circuits, and interpret low, middle, and high-frequency responses in biomedical instrumentation. ▪ Examine and explain the concept of signal conditioning feedback, including characteristics, principles of operation, and design of various biomedical instrumentation. ▪ Identify and utilize various electronic components and instruments. ▪ Operate equipment such as Cathode Ray Oscilloscopes and Function generators proficiently. ▪ Design and study diverse oscillators, Multi-vibrators, and amplifiers. ▪ Analyze observations and interpret results from experiments. ▪ Compare theoretical and experimental results, calculating percentage errors. ▪ Develop skills in identifying faults in experimental units and soldering electronic components into circuits.
B. Sc. Part-II, Sem.-IV	**Communication Electronics and Microprocessor 8085**	▪ Apply fundamental Electronics principles to discuss and explain measurements, meter reading. ▪ Solve problems based on Digital logic, Network, state logic development, and IC stage concepts. ▪ Compare different types of Logic ICs, analyze their functions and significance, and explain decision-based signal processing properties and applications. ▪ Use and explain various logical state designing techniques.

		▪ Analyze biasing circuits, discuss types of Noise and distortions, and interpret logic states in digital electronic circuits, including the low and middle responses of IC families. ▪ Analyze and explain the principles of operation and design of various logical instrumentation for signal conditioning. ▪ Identify and utilize various communication and microprocessor-based electronic circuits and components. ▪ Proficiently handle equipment such as Microprocessor kits, software, pulse analyzers, clock cycles, PCs, etc. ▪ Engage in virtual practical execution through the Virtual lab by IITK and IITB. ▪ Design and study various types of logical instrument design and simulation. ▪ Analyze observations and interpret the results of experiments performed. ▪ Compare theoretical and experimental results, determining percentage errors. ▪ Acquire skills in finding faults in experimental units and soldering electronic components in circuits.
B. Sc. Part-III, Sem.-V	**Measuring Instruments**	▪ Apply foundational principles of Electronics to articulate and elucidate measurements and meter reading. ▪ Resolve problems rooted in the concepts of Resistance, Network, and Instrument development. ▪ Evaluate and contrast different types of Sensors and actuators, detailing their significance and applications in signal processing. ▪ Utilize and articulate various types of sensors, actuators, and plotters. ▪ Analyze diverse biasing circuits, explore noise types, and understand distortions in electronic circuits. ▪ Interpret low, middle, and high-frequency responses in biomedical instrumentation. ▪ Analyze and elucidate the concepts of signal conditioning feedback, including characteristics and the design of various biomedical instrumentation. ▪ Identify and employ various electrical and electronic components. ▪ Proficiently operate equipment such as Cathode Ray Oscilloscope, travelling microscope, digital multimeter, etc. ▪ Design and comprehend various oscillators, Multi-vibrators, and amplifiers. ▪ Scrutinize experimental observations and interpret results. ▪ Conduct a comparative analysis between theoretical and experimental results, calculating percentage errors.

		▪ Develop skills in identifying faults in experimental units and proficiently solder electronic components in circuits.
B. Sc. Part-III, Sem.-VI	**Advanced Microprocessor and Micro Controller**	▪ Apply sensor and actuator principles, demonstrating proficiency in interfacing-based measurements. ▪ Solve problems related to Resistance, Network, Instrument development, automation, and signal processing concepts. ▪ Compare different types of processes, development boards, and their significance. ▪ Utilize and articulate the functionality of various microcontroller interfacing boards and plotters. ▪ Evaluate compensating TTL-CMOS circuits, discuss distortions in sensing circuits, and assess the response of automated instrumentation. ▪ Analyze signal conditioning concepts, understanding characteristics, principles of operation, and the design of various instrumentation. ▪ Identify and utilize various types of microcontrollers and electronic components in circuitry. ▪ Handle equipment such as Cathode Ray Oscilloscope, travelling microscope, and digital multi-meter. ▪ Design and examine sensor networks, Multi-vibrators, and amplifiers. ▪ Analyze and interpret observations from experiments, comparing theoretical and experimental results, and determining percentage error. ▪ Develop skills in identifying faults in experimental units and soldering electronic components.
Subject- Mathematics		
Class	**Course**	**Outcome (Students will be able to.....)**
B. Sc. I, Sem-I	**Algebra &Trigonometry, Differential and Integral Calculus**	▪ Determine the inverse and normal form of matrices. ▪ Analyze characteristic equations, eigenvalues, and corresponding eigenvectors of matrices.\ ▪ Examine the relationship between roots and coefficients in equations. ▪ Explore the applications of De Moivre's theorem. ▪ Calculate the summation of trigonometric series.
B. Sc. I, Sem-II	**Differential Equations (Ordinary and Partial),**	▪ Apply various techniques to solve first-order differential equations. ▪ Solve differential equations of both first and higher degrees, including orthogonal trajectories.

	Vector Analysis and Solid Geometry	▪ Calculate complementary functions and particular integrals for second-order differential equations, and elucidate diverse methods for their solution. ▪ Proficiently solve first-order partial differential equations using various techniques. ▪ Resolve compatible differential equations, homogeneous and non-homogeneous equations with constant coefficients. ▪ Demonstrate comprehension of vectors, including their product, differentiation, and integration.\ ▪ Determine curvature and torsion in relevant mathematical contexts. ▪ Apply the concepts of divergence, gradient, and curls to solve problems in physics. ▪ Describe various forms of spheres and their properties. ▪ Discuss equations related to cones and cylinders.
B. Sc. II, Sem-III	**Advanced Calculus and Elementary Number Theory**	▪ Analyze series and employ various tests for series evaluation. ▪ Interpret sequences and distinguish between different types. ▪ Define limits, explore basic properties, and classify continuity and discontinuity of functions with two variables. ▪ Expand functions with two variables using Taylor's theorem. ▪ Determine minima and maxima utilizing Lagrange's method and delve into Jacobian studies. ▪ Execute double and triple integrations. ▪ Compute the greatest common divisor (GCD) of more than two integers using the Euclidean algorithm. ▪ Investigate prime numbers, delve into the unique factorization theorem, define Fermat numbers, and solve linear Diophantine equations. ▪ Discuss congruence and its properties, solving linear congruences via the Chinese remainder theorem. ▪ Explore various types of functions. ▪ Describe primitive roots, different kinds of congruences, and quadratic residues.
B. Sc. II, Sem-IV	**Modern Algebra: groups and rings and Classical Mechanics**	▪ Introduce the concept of groups with examples and identify even and odd permutations. ▪ Solve problems related to cosets. ▪ Comprehend key concepts of homomorphism and isomorphism. ▪ Acquire a solid understanding of rings and integral domains. ▪ Explore definitions of left and right ideals, principles ideals, and equation rings. ▪ Examine various concepts of constraints and generalized coordinations. ▪ Resolve problems related to areal velocity and Kepler's laws of motion.

		▪ Address Euler's differential equations in problem-solving. ▪ Apply the concept of the differential equation to bodies.
B. Sc. III, Sem-V	**Mathematical Analysis and Mathematical Methods**	▪ Understand and apply the concepts of Riemann integral, fundamental theorem, and mean value theorem in integral calculus. ▪ Explore improper integrals and their tests, including beta and gamma functions. ▪ Analyze complex functions, focusing on analytic, harmonic, and conjugate functions using Milne Thompson method for complex number illustration. ▪ Investigate Mobius transformations, cross ratios, and image determination through conformal mapping. ▪ Delve into metric space, limit points, interior points, open and closed sets, and compactness with problem-solving using Cauchy sequences. ▪ Determine inverse and normal forms of matrices, evaluating characteristic equations, eigenvalues, and corresponding eigenvectors. ▪ Establish relations between roots and coefficients of equations. ▪ Apply De Moivre's theorem in various scenarios. ▪ Calculate summations of trigonometric series. ▪ Study graphs, their types, and applications. ▪ Describe properties of different types of trees. .03 ▪ Analyze fundamental cutsets, circuits, and representations of planar graphs. ▪ Explore Vector space associated with a graph, along with intersection and join of graphs. ▪ Explain various matrix types related to graphs.
B. Sc. III, Sem-VI	**Linear Algebra & Graph Theory**	▪ Solve theorem on Vector space ▪ Analyse Linear transformation and representation of matrices. ▪ Analyse dual space and Bidual space. ▪ Study analyses inner product space. ▪ Describe modules and sub modules. ▪ Study graphs and various types and uses of graph. ▪ Describe different types of trees and their properties. ▪ Analyze fundamental cutset and circuit and different representation of planer graph. ▪ Study how Vector space associated with a graph and Intersection and join of and Ws.

		▪ Describe different types matrix related to the graph.
M.Sc. Part-I Sem.-I	**Paper- I: Real Analysis**	▪ Explore the Riemann-Stieltjes integral and its properties. ▪ Examine sequences and delve into the concept of uniform convergence. ▪ Define rearrangement of series terms and investigate power series. ▪ Calculate derivatives of higher order and study Jacobian matrices. ▪ Analyze and determine maxima and minima.
	Paper- II: Advanced Abstract Algebra	▪ Demonstrate a solid understanding of cosets and normal subgroups, and apply this knowledge to prove basic propositions related to these concepts. ▪ Identify and analyze various types of subgroups, including normal subgroups and cyclic subgroups, comprehending their structures and characteristics. ▪ Exhibit proficiency in handling homomorphisms, sum and direct sum of ideals, as well as understanding maximal and prime ideals, nilpotent, and nil ideals. ▪ Bridge the gap between discrete Mathematics and advanced abstract Mathematics by effectively translating essential concepts of homomorphism and isomorphism. ▪ Interpret the definition and provide examples of modules and submodules, showcasing a comprehensive understanding of these algebraic structures.
	Paper- III: Complex Analysis	▪ Apply the Cauchy integral formula to determine the function value within a specified region. ▪ Express functions as series with both positive and negative powers of variables within a defined region. ▪ Understand the concept of singularities to evaluate integrals of complex-valued functions in simple and multi-connected regions. ▪ Utilize the residue theorem to compute various types of real integrals. ▪ Identify absolute everywhere differential functions and comprehend their role in determining the analyticity of a function.
	Paper- IV Topology – I	▪ Recognize the significance of cardinal and ordinal numbers in shaping topology. ▪ Exhibit understanding of key concepts, including topological spaces, open and closed sets, closure, and boundaries. ▪ Categorize essential notions such as continuity, compactness, connectedness, projection mapping, and validate associated theorems. ▪ Establish connections between fundamental ideas, encompassing countability axioms, separation axioms, and convergence within topological spaces.

		▪ Differentiate between regular, normal, and completely regular spaces.
	Paper- V: Differential Geometry	▪ Analyze and articulate the local intrinsic characteristics of surfaces, including the examination of curves on surfaces and surfaces of revolution. ▪ Formulate geometric arguments to describe families of curves and surfaces, establishing fundamental properties of geodesics. ▪ Express concepts such as Gaussian curvature, surfaces of constant curvature, conformal mapping, and geodesic mapping in a clear and coherent manner. ▪ Demonstrate understanding of tensor calculus, including tensor products of vector spaces, transformation formulas, contraction of special tensors, and inner product operations. ▪ Apply covariant differentiation to tensors, utilizing absolute derivation of tensorial forms and tensor connections in problem-solving scenarios.
M.Sc. I Sem-II	**Paper- VI: Measure & Integral Theory**	▪ Understand Lebesgue outer measure, regularity, and Lebesgue measurability. ▪ Explore the integration of non-negative functions, general integrals, integration of series, and the distinctions between Riemann and Lebesgue integrals. ▪ Demonstrate a solid grasp of derivative concepts, differentiation, and integration. ▪ Engage in discussions on measures and outer measures. ▪ Express mastery in completing a measure, understanding measure spaces, and applying Holder and Minkowski inequalities.
	Paper- VII: Advanced Linear Algebra and Field Theory	▪ Demonstrate a thorough understanding of Eigenvalues and Eigenvectors, along with their application in polynomial expressions. ▪ Provide clear explanations of Quadratic forms, Linear transformations, as well as Canonical and Normal forms in the context of advanced linear algebra. ▪ Describe the fundamentals of Algebraic extensions of fields, emphasizing their significance in mathematical structures. ▪ Discuss the concepts of Normal and Separable extensions within the context of group theory, illustrating their implications and applications. ▪ Develop a comprehensive understanding of Galois theory and its diverse applications, showcasing the theoretical foundations and practical implications in various mathematical contexts.
	Paper- VIII: Integral Equation	▪ Gain a comprehensive understanding of integral equations and their various types. ▪ Classify Volterra integral equations into first and second kinds.

		▪ Demonstrate the ability to find solutions for Fredholm integral equations of the second kind. ▪ Define the fundamental concepts of iterated kernels and reciprocal kernels. ▪ Provide a clear explanation of the solutions to Volterra integral equations of the second kind.
	Paper- IX: Topology – II	▪ Classify key concepts within metric spaces. ▪ Recapitulate concepts pertaining to complete metric spaces. ▪ Explain the definition and provide examples of product spaces. ▪ Represent function and quotient spaces. ▪ Explore metrization and paracompactness in detail.
	Paper- X: Riemannian Geometry	▪ Explore and analyze the properties of Christoffel symbols, divergence, gradient, and Laplacian within the context of Riemannian Geometry. ▪ Illustrate a comprehensive understanding of parallel vector fields and their significance in the study of Riemannian Geometry. ▪ Comprehend and articulate the fundamental concepts associated with curvature tensors, emphasizing the interception of key ideas. ▪ Classify advanced concepts such as Ricci tensor, curvature invariants, and Einstein tensor, elucidating their roles and relationships within Riemannian Geometry. ▪ Consolidate knowledge by summarizing key principles, including Riemannian curvature, space of constant curvature, intrinsic symmetries, and the application of killing vectors in geometric analysis.
M.Sc. II Sem-III	**Paper- XI: Functional Analysis I**	▪ Analyze Quotient spaces within normed linear spaces, emphasizing completeness. ▪ Illustrate Dual spaces through examples. ▪ Establish the concept of complex linear spaces. ▪ Review the solvability of linear equations in Banach spaces. ▪ Investigate Hilbert spaces, emphasizing their structure.
	Paper- XII: Classical Mechanics	▪ Demonstrate an understanding of the Variational Principle and its interpretation in the context of Classical Mechanics. ▪ Describe Lagrange's Equations of both the first and second kinds, showcasing comprehension of their applications. ▪ Explore Legendre transformations and gain insight into the Hamilton equations of motion. ▪ Examine Canonical transformations and their relevance within the framework of Classical Mechanics.

		▪ Evaluate the Hamilton-Jacobi Equation concerning Hamilton's principle function, demonstrating proficiency in its application.
	Paper- XIII: General Relativity	▪ Comprehend the fundamentals of the special theory of relativity, including its introduction and key principles. ▪ Explore Einstein's contributions to the theory of relativity, gaining a comprehensive understanding of his work. ▪ Examine the Schwarzschild exterior solution and its isotropic representation. ▪ Analyze the solutions for the Schwarzschild interior and delve into the gravitational wave equation. ▪ Investigate Eddington's version of the Schwarzschild solution and Weyl's solution to the linearized field equation.
	Paper- XIV: Operational Research	▪ Assess graphical solutions, delve into the duality aspect in Linear Programming, and comprehend the economic implications. ▪ Explore Goal Programming and advanced methodologies within Linear Programming. ▪ Analyze and discuss the Transportation problem and Assignment problems. ▪ Investigate the Shortest Route problem and Network Route problem. ▪ Explain the characteristics associated with dynamic programming.
	Paper- XV: Difference Equation-I	▪ Assess approximate summation techniques for solving mathematical problems. ▪ Examine equations with variable coefficients and non-linear equations amenable to linearization. ▪ Analyze the properties of the Z-transform, along with initial and final value theorems. ▪ Investigate the stability of linear systems and non-linear systems. ▪ Articulate the principles of asymptotic analysis as applied to sums.
M.Sc. II Sem-IV	**Paper- XVI: Functional Analysis –II**	▪ Understand and apply the Riesz Representation theorem, exploring its significance in functional analysis. ▪ Explore the adjoint of an operator within the context of a Hilbert space. ▪ Investigate the application of complex analysis in the realm of spectral theory. ▪ Develop the ability to calculate compact linear operators in normed spaces. ▪ Analyze the spectral properties of bounded self-adjoint linear operators. ▪ Study the characteristics and applications of positive operators and projection operators.
	Paper- XVII: Partial Differential Equation	▪ Master the solution techniques for first-order partial differential equations and understand their genesis. ▪ Demonstrate proficiency in the classification of integrals related to partial differential equations.

		▪ Gain the ability to solve linear equations of the first order. ▪ Recall and apply the classification principles for second-order partial differential equations. ▪ Compute solutions for the one-dimensional wave equation. ▪ Solve Laplace's Equation and address the Dirichlet problem for a half-plane. ▪ Extend problem-solving skills to address the Dirichlet problem for a circle. ▪ Apply mathematical methods to solve heat conduction problems.
	Paper- XVIII: General Relativity & Cosmology-II	▪ Analyze static cosmological models proposed by Einstein and De Sitter, including their derivations. ▪ Explain the derivation of the Robertson-Walker Metric and explore its additional properties. ▪ Investigate the motion of particles and light rays within the Robertson-Walker model. ▪ Examine various Friedman models, including closed, flat, and open models. ▪ Explore the relativistic structure of stellar objects within the framework of General Relativity.
	Paper- XIX: Operation Research	▪ Analyze queuing systems and comprehend their fundamental characteristics. ▪ Identify various games and strategies in decision-making scenarios. ▪ Apply the principles of General Nonlinear Linear Programming (NLLP) with equality constraints. ▪ Resolve problems using the Non-Linear Programming method. ▪ Engage in discussions regarding both unconstrained and constrained geometric programming problems.
	Paper- XX: Difference Equation-II	▪ Analyze self-adjoint second-order linear equations through interpretation techniques. ▪ Demonstrate proficiency in solving the Sturm-Liouville Problem. ▪ Apply discrete calculation of variation to solve mathematical problems. ▪ Successfully solve boundary value problems associated with nonlinear equations. ▪ Engage in discussions regarding the solutions of partial differential equations.
Subject- PHYSICS		
Class	**Course**	**Outcome (Students will be able to.....)**
B. Sc. I, Sem-I	**Mechanics, Properties of matter, Waves and Oscillation**	▪ Apply fundamental Newtonian Mechanics concepts to physical systems. ▪ Explore the variation of 'g' with altitude and depth. ▪ Determine gravitational potential for spheres. ▪ Grasp the methodology of science and essentials of mechanics and properties of matter.

		▪ Discuss and apply rotational dynamics principles for rigid bodies. ▪ Examine simple harmonic motion, differentiating undamped, damped, and force oscillations, along with resonance concepts. ▪ Explain the superposition of simple harmonic motion and gain knowledge of Ultrasonic waves, including production, detection, and applications. ▪ Determine elasticity constants and establish connections with relevant phenomena. ▪ Study surface tension, continuity equation, Bernoulli's theorem, and viscosity variation with temperature. ▪ Independently perform practical experiments based on mechanics, demonstrating self-motivation. ▪ Identify and handle various equipment like different pendulum types. ▪ Utilize measuring instruments (vernier caliper, micrometer screw gauge, traveling microscope, spherometer) to measure physical quantities. ▪ Develop skills in observing and measuring different types of errors. ▪ Determine collision nature through experiments and calculate the coefficient of restitution ▪ Calculate acceleration due to gravity using oscillating objects like Bar & Kater's pendulum. ▪ Calculate moment of inertia for various objects and correlate it with theoretical concepts. ▪ Determine the modulus of rigidity of wire using Torsional pendulum & Maxwell's needle. ▪ Calculate Young's modulus for beam material and correlate it with theoretical values. ▪ Understand the impact of physical parameters on surface tension.
B. Sc. I, Sem-II	**Kinetic Theory, Thermodynamics and Electric Currents**	▪ Comprehend the kinetic theory of gases and derive Boyle's law. ▪ Determine the specific heat of monatomic gases, extending to di and tri-atomic gases. ▪ Differentiate between real and Van der Waals gases, exploring gas transport phenomena. ▪ Formulate relationships among thermodynamic variables. ▪ Develop an understanding of the laws of thermodynamics. ▪ Simplify Carnot's theorem, discussing various state parameters. ▪ Grasp the concept of gas liquefaction. ▪ Derive the Clausius-Clapeyron heat equation and apply Maxwell's general relationship to Joule-Thomson cooling. ▪ Explore the impact of electric and magnetic fields on charged particles. ▪ Study the construction and operation of Mass spectrograph, velocity selector, and Cyclotron. ▪ Apply various network theorems to simplify electrical circuits.

		▪ Examine AC circuits, series, and parallel combinations of L, C, and R, including reactance and transformers. ▪ Apply acquired theories and skills to solve real-time problems. ▪ Differentiate between the magnetic effects of electric current, electromagnetic induction, and related laws. ▪ Understand the operation of Ballistic Galvanometer and its practical applications. ▪ Explore various types of oscillator circuits, understanding their operation and applications in domestic, industrial, and scientific devices/equipment.
B. Sc. II, Sem-III	**Electrodynamics, Solid state electronics, Theory of relativity, Atmosphere and Gio-physics.**	▪ Comprehend vector calculus, electric magnetic phenomena, and their applications, applying fundamental knowledge to problem-solving. ▪ Gain insight into Magnetostatics, understanding fundamental concepts, principles, and equations along with their practical applications. ▪ Grasp the theory of semiconductor materials and devices, exploring various semiconductor diodes and their applications. ▪ Acquire knowledge about junction transistors, OP-AMP, and their practical applications. ▪ Develop a foundational understanding of the special theory of relativity, deriving and proving expressions based on experimental phenomena. ▪ Explore Earth's internal structure, atmosphere, and composition, gaining insight into the origin of earthquakes and seismic sources. ▪ Demonstrate understanding of the basic principles governing semiconductor diodes and transistors. ▪ Explain the voltage transfer characteristics of different diodes and transistors. ▪ Differentiate between types of OP-AMP and explore their applications through practical experiments. ▪ Learn the essentials of Cathode Ray Oscilloscope (CRO) operation, including determining hysteresis loss for known voltages. ▪ Collaborate effectively within a small team to accomplish complex tasks.
B. Sc. II, Sem-IV	**Optics, Laser, fibre optics and renewable energy sources**	▪ Comprehend light phenomena such as reflection, interference, and transmittance. Evaluate methods for measuring wavelength and refractive index using Newton’s ring. ▪ Gain knowledge of the wave nature of light and various types of diffraction. Calculate the wavelength of light using a grating. ▪ Understand polarization, double refraction, and analyze light polarization using Nicol prism.

		▪ Acquire knowledge about LASER, MASER, pumping characteristics, different types of lasers, and their applications. ▪ Gain insight into fiber optics, including understanding losses, communication, and applications in various fields. ▪ Explore renewable energy sources, storage methods, and their practical applications. ▪ Demonstrate an understanding of Newton's ring concept and calculate the wavelength of sodium light. ▪ Learn to calculate the wavelength of monochromatic light and the resolving power of a plane diffraction grating. ▪ Acquire knowledge of the resolving power of telescopes through experimental exploration. ▪ Explore the concept of refractive index and learn how to determine the refractive index of a prism using a spectrometer. ▪ Understand capacitance determination using the Scherring bridge method and self-inductance using the bridge rectifier method.
B. Sc. III, Sem-V	**Quantum Mechanics, Nuclear Physics & Solid-State Electronics**	▪ Apply quantum mechanics principles to elucidate the dual nature of light and matter. ▪ Solve problems based on quantum mechanics concepts using Schrödinger's time-dependent and independent equations. ▪ Compare and explain various quantum numbers, explore X-ray properties, and delve into applications of Raman spectroscopy. ▪ Utilize and elucidate particle detectors, interpret nucleus constitution, understand nuclei decay, and analyze nuclear reactions. ▪ Examine different biasing circuits, discuss noise types in electronic circuits, and interpret RC coupled amplifier frequency responses using h-parameters. ▪ Analyze feedback concepts and characteristics, understand oscillation principles, and design oscillators and multivibrators. ▪ Identify and use various electrical and electronic components effectively. ▪ Familiarize with equipment like Cathode Ray Oscilloscope, travelling microscope, digital multimeter, etc. ▪ Design and study oscillators, multivibrators, and amplifiers. ▪ Analyze experiment observations, interpret results, and compare theoretical and experimental outcomes, calculating percentage error.

		▪ Develop skills to identify faults in experimental units and proficiently solder electronic components in circuits.
B. Sc. III, Sem-VI	**Statistical Mechanics and Solid-State Physics**	▪ Evaluate fundamental concepts in statistical mechanics, including phase space, unit cell, micro-state, macro-state, energy states, entropy relation, and probability. Apply Maxwell-Boltzmann statistics in practical scenarios. ▪ Understand the distinctions between distinguishable and indistinguishable particles (e.g., bosons and fermions) and explore Bose-Einstein and Fermi-Dirac distributions, gaining insights into their applications ▪ Develop a foundational understanding of crystal structures, encompassing atomic positions, unit cells, crystal symmetry, and x-ray diffraction analysis. Recognize common crystal structures and describe their symmetries. ▪ Analyze the basic theory of electrical properties in materials, comprehending the motion of electrons and the band structure of solids. ▪ Explore the fundamental theory of magnetic properties in materials, covering atomic magnetic moment, magnetization vector, magnetic susceptibility, dia-, para-, and ferromagnetic materials, Curie's law, Weiss's law, hysteresis, and energy loss. ▪ Introduce basic properties of superconductors and nanomaterials, emphasizing their properties and applications. ▪ Identify and utilize various electrical and electronic components, along with proficient handling of equipment like Cathode Ray Oscilloscope, travelling microscope, and digital multimeter. ▪ Design and study various diodes (p-n junction diode, Zener diode, Photodiode), as well as Solar cells. ▪ Analyze observations and interpret results from experiments. ▪ Compare theoretical predictions with experimental results, determining percentage error. ▪ Acquire skills in identifying and rectifying faults in experimental setups.
M.Sc. Part-I Sem.-I	**Mathematical Physics**	▪ Master the algebra of matrices, partitioning techniques, and eigenvalue problem solving; differentiate and solve matrices in classical and quantum mechanics. ▪ Derive and analyze limits and continuity for complex functions; apply analyticity, Cauchy-Riemann equations, and residue theorem in solving integrals; tackle problems using Taylor and Laurent series. ▪ Obtain general solutions for second-order differential equations; comprehend the functions of various types of differential equations.

		▪ Solve Legendre Polynomials and differential equations like Legendre, Bessel, and Hermite; determine corresponding generating functions. ▪ Derive properties of Laplace and Fourier transforms; understand their applications in various physical problems.
	Classical Mechanics	▪ Grasp the fundamentals of Newtonian mechanics for single particles and systems, acknowledging limitations and describing conservation laws. ▪ Classify constraints, understand their effects, justify constraints on systems, and address difficulties introduced by constraints. ▪ Determine Gauge function for Lagrangian and its gauge invariance. ▪ Define and explain Hamilton's principle, derive characteristic functions, and solve the Hamilton-Jacobi equation. ▪ Understand mechanical system motion using Lagrange-Hamilton formalism, define and derive properties of the two-body central force problem. ▪ Explain circular orbit stability, derive differential equations, and discuss Kepler's laws. ▪ Obtain canonical transformation, generating functions; solve Poisson's brackets, transitioning from discrete to continuous systems. ▪ Develop an understanding of small oscillations.
	Quantum Mechanics-I	▪ Familiarize yourself with the historical development of quantum mechanics; discuss experiments revealing wave properties, inspiring the shift from classical to wave mechanics. ▪ Discuss failures of classical mechanics and the origin of wave mechanics phenomena. ▪ Determine matrix representation in quantum mechanics. ▪ Describe the simple harmonic oscillator using raising and lowering operators; represent angular momentum and Hamiltonian in spherical coordinates. ▪ Solve Pauli Spin matrices; apply to hydrogen spin-orbital; obtain Clebsch-Gordan coefficients. ▪ Understand angular momentum and spin concepts, quantization rules, and their additions. ▪ Solve Schrödinger equation analytically and numerically; calculate time evolution, probabilities, expectation values, uncertainties, and offer concise physical interpretations. ▪ Distinguish Schrödinger, Heisenberg, and Interaction representations using various approximation methods; determine ground state energy via Variation and WKB methods.
	Computational Methods and Programming	▪ Derive methods for zero determination of linear/nonlinear equations and transcendental equations; solve simultaneous linear equations.

		▪ Iteratively find roots of smoothly varying functions; perform matrix operations, including inverses and determinants. ▪ Solve linear systems with boundary value problems; determine eigenvalues and eigenvectors; apply numerical methods for interpolation, root-finding, and curve fitting. ▪ Obtain eigenvalues and eigenvectors of matrices; apply numerical methods for interpolation and root-finding. ▪ Integrate functions within given interval limits to estimate area under curves. ▪ Utilize numerical differentiation and integration for physics problems; numerically solve ordinary differential equations with boundary value problems. ▪ Proficiently code computers using advanced C programming tools independently. ▪ Apply C programming to formulate and solve specific physics problems computationally.
M.Sc. Part-I, Sem-I	**1PHY6- General Lab**	▪ Develop proficiency in utilizing both experimental and computational tools to adeptly address real-world challenges. ▪ Navigate varied experimental configurations, accurately ascertain universal constants, and adeptly identify sources of error and data fluctuations. ▪ Master the computation and analysis of errors in theoretical predictions and experimental measurements. ▪ Sharpen problem-solving abilities through immersive physics practicals, applying theoretical principles to precisely interpret experimental outcomes. ▪ Utilize interference and optics principles to measure Sodium Light wavelength and liquid refractive index. ▪ Model radioactive decay using dice simulations and assess Solar cell spectral characteristics for efficiency and performance. ▪ Understand the principles and applications of the Chi-square test as a statistical tool for hypothesis testing and data comparison.
M.Sc. Part-I Sem.-II	**Electrodynamics–I**	▪ Assess and resolve electrostatic potential, Poisson, and Laplace equations, and understand electric energy distribution in free space and different media. ▪ Solve Laplace equations using Cartesian, cylindrical, and spherical symmetries, incorporating Green's function.

		▪ Apply Biot-Savart Law and Ampere's law to various configurations, determining charge distribution and solving multipole expansion. ▪ Explore the impact of uniform fields on dielectric spheres, comprehend susceptibility, polarizability, and apply them to molecular fields. ▪ Grasp time-varying fields, displacement current, Faraday induction, and solve Maxwell's equations for electromagnetic wave propagation. ▪ Explain the nature of electromagnetic waves through diverse media and interfaces, and describe charged particle dynamics and radiation from time-varying sources.
	Quantum Mechanics–II	▪ Comprehend the historical development of quantum mechanics and differentiate it from classical mechanics. ▪ Derive first and second-order energy shifts due to perturbations, applying them for accurate energies in non-degenerate and degenerate states. ▪ Describe time-independent perturbation theory and analyze Zeeman and Stark effects. ▪ Master central quantum mechanics concepts, including Schrodinger equation, wave function, uncertainty principle, and quantum-mechanical principles related to linear algebra. ▪ Solve time-dependent perturbation problems, explain electromagnetic radiation interaction with atoms, and derive transition probabilities for induced emission and absorption. ▪ Understand scattering phenomena, derive Born approximation, and develop knowledge of low and high-energy physics. ▪ Generate wave functions for identical particles, relate symmetry properties to particle spin, and derive creation and annihilation operators for fermions and bosons. ▪ Solve the Dirac and Klein-Gordon equations, obtaining their solutions.
	Solid State Physics	▪ Develop theoretical and experimental approaches for fundamental insights into solid-state physics. ▪ Explain physical properties of solid materials, emphasizing crystalline states, and employ theoretical models for mechanical, thermal, and electrical properties. ▪ Describe single crystal and polycrystals, crystal symmetry, Bravais lattices, and X-ray diffraction techniques. ▪ Understand reciprocal lattice, Brillouin zone, and diffraction of electrons and neutrons. ▪ Explain different crystals—molecular, ionic, covalent, and metals—discussing interatomic forces, cohesive energy, infrared absorption, anharmonicity, and thermal expansion. ▪ Derive Dulong and Petit Law and comprehend the effect of temperature on specific heat.

		▪ Explain Einstein and Debye theories in detail.
	Net Work Theorems and Solid-State Devices	▪ Analyze circuits using Kirchhoff's law and network simplification theorems, and classify passive components. ▪ Evaluate transient and steady-state responses, network functions, and analyze resonant circuits. ▪ Differentiate semiconductors, conductors, and insulators based on energy band diagrams. ▪ Classify diode types and determine their characteristics. ▪ Obtain I/O characteristics of FET and MOSFET, explaining their basic working principles, and design amplifier circuits. ▪ Design and analyze rectifiers and voltage regulators using diodes, and design circuits with semiconductor switching devices. ▪ Classify amplifiers, describe the working principles and input/output characteristics of Bipolar Junction Transistor (BJT), and design BJT oscillator and multivibrator circuits. ▪ Construct and explain the working and uses of various transducers, and understand the construction and operation of basic measuring instruments.
M.Sc. Part-I Sem.-II	**2PHY5- Lab on Solid State Physics**	▪ Master the application of the magnetron method for determining the electron charge-to-mass ratio (e/m). ▪ Evaluate laser beam divergence and spatial characteristics by analyzing intensity distribution data. ▪ Utilize laser-based techniques to measure wire thickness and determine laser source wavelength. ▪ Understand the principles, working mechanism, and characteristics of GM counters through practical experimentation and data analysis. ▪ Demonstrate a deep understanding of crystal models within the cubic crystal system and their implications in materials science. ▪ Apply crystallographic principles to articulate atom arrangements in various cubic crystal structures. ▪ Analyze experimental data and present clear and concise reports, emphasizing significance in advanced materials research. ▪ Compare theoretical predictions with experimental measurement results. ▪ Design, assemble, and conduct experiments in Laser/ Solid State Physics, Modern Physics, and Nuclear Physics.

M.Sc. Part-I Sem.-II	**2PHY-6: LABORATORY COURSE-2**	▪ Exhibit proficiency in utilizing measuring instruments such as multimeters, oscilloscopes, and function generators to assess voltage, current, frequency, and various circuit parameters. ▪ Cultivate the ability to design and analyze oscillators and multivibrators, comprehending their output waveforms. ▪ Familiarize oneself with electronic components, understanding their specifications and practical applications. ▪ Comprehend the fundamental operation of semiconductor devices and construct electronic circuits based on this understanding. ▪ Demonstrate competence in conducting practical experiments involving semiconductor devices. ▪ Develop skills to design circuits that embody various basic network theorems and validate their principles through result analysis. ▪ Attain knowledge of electronic circuit design and analysis, encompassing oscillator and multivibrator circuits, as well as network theorems.
M.Sc. Part-II Sem.-III	**Electrodynamics-II**	▪ Comprehend charged particle dynamics and radiation emanating from localized time-varying electromagnetic sources. ▪ Grasp fundamental mathematical principles associated with electromagnetic vector fields. ▪ Understand and solve the wave equation for electric and magnetic fields in free space. ▪ Explain the temporal variations of electric and magnetic fields. ▪ Familiarize oneself with plasma physics and its correlation with ordinary electromagnetics. ▪ Comprehend the concepts and applications of waveguides, plasma, and confinement. ▪ Analyze the impact of magnetic fields on electromagnetic waves. ▪ Acquire familiarity with Magnetosonic and Alfven Waves. ▪ Apply advanced mathematical methods to solve electrodynamics problems.
	Statistical Mechanics	▪ Understand microscopic and macroscopic states and establish the connection between thermodynamics and statistics. ▪ Classify ensembles and relate the partition function to thermodynamic quantities ▪ Discuss statistics of indistinguishable particles, applying Fermi-Dirac and Bose-Einstein distributions. ▪ Interpret classical (Maxwell-Boltzmann) and quantum (Bose and Fermi Dirac) statistics for various particle systems.

		▪ Derive insights into phase transitions and superfluidity concepts. ▪ Correlate space-time dependent fluctuations. ▪ Comprehend superfluidity, Landau's theory, and non-equilibrium processes.
	Atomic & Molecular Physics	▪ Explore the vector atom model for a comprehensive understanding of atomic structure parameters. ▪ Understand hydrogen and alkali atom spectroscopy. ▪ Grasp the quantum behavior of atoms in external electric and magnetic fields. ▪ Recognize spectroscopy of many-electron atomic systems and hyperfine splitting of spectral lines. ▪ Understand Resonance Spectroscopy (ESR and NMR). ▪ Apply knowledge to vibrational-rotational spectroscopy of diatomic molecules and interpret isotope shifts. ▪ Describe Infrared & Raman spectra of polyatomic molecules, incorporating selection rules. ▪ Understand electronic states of atoms and molecules, including Franck-Condon factors. ▪ Discuss the origin of sodium D1 & D2 lines and determine interaction energy from different coupling schemes. ▪ Recognize the importance of rotational and vibrational energy levels through the study of molecular spectroscopy.
	Digital Techniques	▪ Explain charged particle dynamics and radiation from localized time-varying electromagnetic sources. ▪ Grasp basic mathematical concepts related to electromagnetic vector fields. ▪ Solve wave equations for electric and magnetic fields in free space. ▪ Explain the variation of electric and magnetic fields with time. ▪ Be familiar with concepts of plasma physics and its relation to ordinary electromagnetics. ▪ Understand the concept and application of waveguides, plasma, and confinement. ▪ Analyze the effect of magnetic fields on electromagnetic waves. ▪ Gain familiarity with Magnetosonic and Alfven Waves. ▪ Apply advanced mathematics to solve problems in electrodynamics.
	Lab Course-I 3PHY3	▪ Acquire proficiency in employing Quincke's and Gouy balance methods to assess the magnetic susceptibility of diverse magnetic samples. ▪ Analyze magnetic data curves to assess crucial magnetic parameters, including coercivity, retentivity, and saturation magnetization.

		▪ Utilize LCR meters with programmable furnaces to investigate dielectric properties and identify the ferroelectric phase transition temperature (Tc) in samples. ▪ Cultivate the ability to design and use high-temperature muffle furnaces for determining the specific heat of solid samples. ▪ Utilize powder diffraction data analytical programs (e.g., Celref) to explore and comprehend the crystal structure of various crystalline solids. ▪ Apply magnetic property principles to practical situations and real-world applications. ▪ Demonstrate proficiency in interpreting experimental results and drawing meaningful conclusions. ▪ Develop research and problem-solving skills in the field of physics and experimental techniques, specifically focusing on magnetic and dielectric properties of materials.
M.Sc. Part-II Sem.-III	**Review of Literature Project/dissertation**	▪ Comprehend the importance of ethical standards and Intellectual Property Rights in the realm of Research and Publications during the Literature Project/dissertation review. ▪ Showcase proficiency in defining a well-defined and achievable research problem, coupled with the capability to devise experiments or theoretical inquiries. ▪ Execute a comprehensive literature review, critically assessing previous research to pinpoint deficiencies in the existing comprehension of the selected subject. ▪ Employ various electronic resources, including but not limited to web of science, Scopus, inflibnet, and Google Scholar, for the purpose of conducting an extensive literature review.
M.Sc. Part-II Sem.-IV	**Nuclear and Particle Physics**	▪ Comprehend the atomic nucleus's structure, including key attributes like binding energy and nuclear forces. ▪ Apply Rabi's and Block's methods to measure nuclear magnetic moments ▪ Analyze ground state properties using Deuteron Meson Theory. ▪ Grasp nuclear fission, fusion, particle detectors, and accelerator concepts. ▪ Differentiate nuclear detectors and particle accelerators. ▪ Classify elementary particles and understand their interactions. ▪ Outline symmetry, conservation laws, and the basic design of the quark model.
	Opamp Theory and its Applications	▪ Design and analyze differential amplifiers, including DC/AC configurations. ▪ Explain the typical Op Amp block diagram.

		▪ Identify, design, and package basic integrated circuit components. ▪ Classify various oscillator types. ▪ Design signal generators, low/high order filters, multi-vibrators, ADC, and PLL circuits.
	Condensed Matter Physics-II	▪ Recognize defects and imperfections in crystals. ▪ Explain dislocations and stacking faults through experimental methods. ▪ Interpret Hartee & Hartee-Fock approximations. ▪ Understand Fermi Liquid Theory basics. ▪ Describe point defects within the band model, summarizing impurity band semiconductors and amorphous semiconductors. ▪ Identify lattice disorders using theoretical models. ▪ Tailor solid properties based on physical and chemical understanding.
	Nano Science and Nanotechnology	▪ Understand diverse synthesis methods for nanomaterials (0D, 1D, 2D). ▪ Grasp free electron theory and the properties of 1D, 2D, 3D nanomaterials, including band structures. ▪ Analyze bottom-up and top-down synthesis details. ▪ Understand size, topography, and morphology analysis using SEM/TEM and scanning probe microscopies. ▪ Describe size-dependent properties of nanostructured materials, considering quantum confinement. ▪ Explore electrical and mechanical properties of nanostructured materials ▪ Acquire knowledge of carbon nanostructures and their potential applications
M.Sc. Part-II Sem.-IV	**Lab Course-I 4PHY5**	▪ Comprehend the fundamentals of X-ray diffraction and its application for estimating average crystallite size. ▪ Master the techniques for quantitative X-ray analysis, utilizing the Rietveld refinement method with MAUD or FullProf software. ▪ Attain a theoretical understanding of Laue's pattern and its role in the examination of crystal structures. ▪ Demonstrate proficiency in determining lattice parameters and crystallite size from powder diffraction patterns based on theoretical concepts.

		▪ Analyze SEM micrographs using the grain intercept method to determine the average grain size of the sample. ▪ Acquire the skills to analyze TEM images with ImageJ software for particle size determination, presenting results through histogram graphs for average size with standard deviation. ▪ Develop the ability to visualize crystal structures in given samples using VESTA software. ▪ Apply theoretical knowledge and analytical techniques to real-world materials and samples, solving practical problems related to crystallography and material characterization.
M.Sc. Sem-IV	**Project/dissertation**	▪ Develop expertise in manufacturing advanced materials proposed in the initial project phase. ▪ Verify the manufactured materials through structural characterization methods. ▪ Showcase proficiency in gathering experimental data, conducting simulations, and analyzing datasets using tools such as MS Excel, Origin Lab, and image processing software. ▪ Apply theoretical models to validate experimental results. ▪ Effectively communicate research findings through written reports, manuscripts, presentations, and potential scientific publications. ▪ Demonstrate strong project management skills, including time management, resource allocation, and adaptability to unforeseen challenges. ▪ ▪ Articulate the potential societal advantages derived from the research findings.
Subject- ZOOLOGY		
Class	**Course**	**Outcome (Students will be able to.....)**
B. Sc. Part-I, Sem.-I	**Life and Diversity of Non-cordata**	▪ Acquire knowledge about non-chordates, specifically Phylum Protozoa, and related specimens such as Plasmodium Vivax, including information on Protozoa-related diseases. ▪ Gain insights into Phylum Porifera and Coelenterata, covering their specimens outlined in the syllabus. ▪ Obtain knowledge about Phylum Platyhelminthes and Aschelminthes, encompassing their specified specimens.

		▪ Comprehend the theoretical aspects of Phylum Annelida and Arthropoda, focusing on their general characters with reference to model organisms. ▪ Familiarize yourself with Phylum Mollusca and Echinodermata, understanding their model organisms. ▪ Learn about the General Characters of Hemichordata, Body Organization of Balanoglossus, and the Affinities of Balanoglossus.
B. Sc. Part-I, Sem-II	**Cell and Developmental Biology**	▪ Acquire knowledge about Eukaryotic Cell structure, Plasma Membrane, and Endoplasmic Reticulum, along with their functions. ▪ Understand the structure and functions of Golgi complex, Ribosome, Mitochondria, and Lysosomes in Eukaryotic Cells. ▪ Explore the structure and functions of Nucleus, Nucleolus, Chromosomes, and Endoplasmic Reticulum in Eukaryotic Cells. ▪ Grasp the cell cycle, stages of cell division, including mitosis and meiosis. ▪ Learn about the General Characters of Hemichordata, Body Organization of Balanoglossus, and the Affinities of Balanoglossus. ▪ Gain knowledge about Placenta in mammals, Parthenogenesis, Stem cells, regeneration, and their types and functions.
B. Sc. Part-II, Sem-III	**Life and Diversity of Cordata**	▪ Learn about the characters and organizational levels in the chordate phylum, covering classification from Protochordates to class Mammalia. ▪ Understand and confidently explain Migration in fishes and birds, parental care in Amphibians, and the distinction between Poisonous and non-poisonous snakes. ▪ Explore Mammalian endocrine gland structure, their significance, the evolution of Man, convergent and divergent evolution. ▪ Examine the classification of humans and human ancestry, including Homo erectus, Neanderthal man, Cro-magnon man, and modern man. Also, delve into the evolution of the heart and aortic arches. ▪ Learn Evolution with a focus on Meaning and scope, Indirect Evidences of evolution, and techniques like radioactive carbon dating. ▪ Gain insights into Evolutionary Processes, including natural selection and related theories, and understand Population Genetics.

B. Sc. Part-II, Sem-IV	**Advanced Genetics and Animal Ecology**	▪ Learn the concepts of genes and Mendel's Genetics, referencing different laws and the process of Linkage with its significance. ▪ Explore topics like Crossing Over, Darlington's theory, breakage and exchange theory, Copy choice theory, and Multiple alleles concept using drosophila. ▪ Understand Sex determination, both Autosome and sex chromosomes, Genic Balance theory, and Sex determination mechanisms. ▪ Explore various types of genetic disorders and chromosomal disorders. ▪ Learn about Amniocentesis, Inheritance of eye color, Skin color, Recessive genes, consanguineous marriages, and Birth control measures. ▪ Understand the concept of ecology, referencing Abiotic and Biotic factors, Relationship between habitat and ecological niche, energy flow in an ecosystem, food chain, and food web.
B. Sc. Part-III, Sem-V	**Animal Physiology and Economic Zoology**	▪ Understand comparative respiratory organs, blood, and its constituents, along with knowledge of the heart's structure and the rhythmic cardiac cycle. ▪ Grasp the concepts of Muscle structure, types, functions, and working, applicable in university and competitive exams. ▪ Gain insights into the Nervous System and apply this knowledge in university exams. ▪ Explore Oestrous and Menstrual cycles, hormonal control of spermatogenesis, Oogenesis, and Osmoregulation mechanisms in aquatic and terrestrial animals. ▪ Understand Agriculture Zoology concepts and apply them in university exams. ▪ Know the definition, scope, importance, and present status of Aquaculture in India.
B. Sc. Part-III, Sem-VI	**Molecular Biology and Biotechnology**	▪ Familiarize yourself with the definition of Genetic material, including basic information about Mitochondrial DNA. ▪ Understand the concepts of replication, its types, various enzymes involved in DNA replication, and their functions. ▪ Learn the Genetic code, its features, the process of transcription, and Gene regulation in prokaryotes and Eukaryotes. ▪ Explore concepts of Mutations, their types, and techniques like PCR, DNA Fingerprinting, and related techniques. ▪ Understand Molecular Biology Techniques, including Recombinant DNA Technique, Hybridoma Technology, genetic engineering, etc ▪ Grasp the Immune system, distinguishing between Innate and adaptive immunity, types, and production of immune cells and their related organs.

Subject- ENGLISH		
Class	**Course**	**Outcome (Students will be able to.....)**
B.Sc. Part-I, Sem-I	**Compulsory English**	▪ Foster a critical and analytical mindset. ▪ Develop proficiency in listening and speaking. ▪ Support independent language comprehension and production. ▪ Gain awareness of diverse communicative functions in English. ▪ Demonstrate seamless English skills in speaking, writing, reading, and listening.
B.Sc. Part-II, Sem-II	**Compulsory English**	▪ Comprehend and mediate diverse views and disagreements in group discussions. ▪ Apply basic English language skills in professional contexts. ▪ Analyze the nuances of English language in prose and poetry. ▪ Utilize English for interpersonal, social, literary, and interdisciplinary communication. ▪ Compare English language structures through listening, speaking, reading, and writing (LSRW).
Subject- MARATHI		
Class	**Course**	**Outcome (Students will be able to.....)**
B.Sc. Part-I, Sem.-I	**Compulsory Marathi**	▪ Demonstrate a profound understanding of Jyotirao Phule's life. ▪ Analyze and discuss the research and character of Dr. A.P.J. Abdul Kalam. ▪ Expand intellectual resources and vocabulary, enhancing overall knowledge. ▪ Explore philosophical principles related to the reverence for Sant Dnyaneshwar in poetry. ▪ Examine Janabai Tath Mane's progressive thoughts. ▪ Contribute to social awareness through poetry, fostering societal knowledge. ▪ Develop proficiency in practical Marathi, including letter types and formats. ▪ Understand basic concepts of official, personal, and business letters, emphasizing their contemporary relevance. ▪ Explain the significance of letters in today's interactions and cultivate letter-writing skills within the curriculum.

B.Sc. Part-I, Sem.-II	**Compulsory Marathi**	▪ Acquire comprehensive knowledge of Chhatrapati Shahu Maharaj's multifaceted activities. ▪ Explore scientific perspectives and research contributions of Raghunath Mashelkar, fostering self-awareness. ▪ Encourage internalization of scientific perspectives through writings, promoting self-awareness. ▪ Explore the emotional connection with the earth in poetry, addressing students' sentiments. ▪ Delve into the universal impact of actions and karma in human existence, fostering a broader understanding. ▪ Augment competitive vocabulary through powerful words in poetry, promoting a competitive outlook. ▪ Strengthen practical Marathi skills, understanding the role in journalism, letter writing, and news reporting. Highlight potential career paths in journalism, letter writing, and news reporting.
Subject- HINDI		
Class	**Course**	**Outcome (Students will be able to.....)**
B.Sc. Part-I, Sem.-I	**ABHINAV**	▪ Gain insight into the historical and cultural significance of Hindi, tracing its origins and linguistic evolution. ▪ Analyze and assess Hindi literature, exploring works such as "Bade Ghar Ki Beti," "Budhiya," and "Bakul Firana" to understand societal perspectives and values. ▪ Demonstrate translation proficiency in Hindi to English, English to Hindi, and other languages. ▪ Develop fluency in spoken and written Hindi, enhancing communication and presentation skills. ▪ Acquire in-depth knowledge of 'adharbhut pathykram' and various poems by Harivanshray Bachchan. ▪ Recognize the importance of learning Hindi in both Hindi and non-Hindi regions, identifying its potential for diverse opportunities.
B.Sc. Part-I, Sem.- II	**ABHINAV**	▪ Understand foundational concepts and historical development of the Hindi language, including its origins.

		▪ Evaluate Hindi's significance in literature and society, analyzing its role in fostering cultural connections and social cohesion. ▪ Develop proficiency in using Hindi as an official and second language, enabling employment in Hindi-recognized countries. ▪ Apply translation skills between Hindi, English, and other languages, opening opportunities as a translator in central government offices. ▪ Attain a high level of language proficiency for effective expression in both written and spoken forms. ▪ Explore traditional Hindi literary forms such as vrutantlekhan, ekanki, sawndlekhan, and study poems by renowned authors like Harivanshray Bachchan.

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COURSE OUTCOME (CO) Subjects covered under faculty of Arts/Humanities/ Social Sciences]

Subject- MARATHI		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**वैचारिक लेख,** **ललित लेख,** **कविता व** **व्यावहारिक मराठी**	▪ Understand thoughtful articles by Vinoba Bhave, Sane Guruji, and Abhay Bang, gaining insights into education, culture, and physical exercise. ▪ Analyze fine literature by Madhukar Keche, Dr. Madhukar Wakode, and Arun Jakhade, exploring traditions, rural culture, and tolerant personalities. ▪ Identify ancient traditions and languages, changes in modern poetry, and narrative styles in poetry through the study of poets like Dnyaneshwar, Keshavsut, and Namdev Dhasal. ▪ Acquire practical Marathi skills including writing rules, smileys, and knowledge of alphabets.

B.A. Part-I, Sem-II	**वैचारिक लेख** **ललित लेख** **कविता** **व्यावहारिक मराठी**	▪ Examine the thoughts of Swami Vivekananda, Narendra Dabholkar, and Chandrashekhar Shikare, understanding spirituality, science, and social practices. ▪ Explore fine literature by Keshirajbas, Babarao Musale, and Meenal Yewle, gaining insights into illustrations, rural characterizations, and women's issues. ▪ Study poetry by Namdev, Janabai, and others, realizing saints' social reform thoughts and awareness of social conditions. ▪ Develop practical Marathi skills in writing cover letters, self-introduction letters, and job applications.
B.A. Part-II, Sem-III	**वैचारिक लेख** **ललित लेख** **कविता** **व्यावहारिक मराठी**	▪ Critically evaluate the thoughts of Tarkatirtha Lakshmanasastri, Dr. H. Salunkhe, and M. Mate, gaining an overview to distinguish truth from falsehood. ▪ Understand narrative essays by Ramchandra Amatya, Ch.V. Joshi, and Daya Pawar, enhancing language comprehension in historical contexts. ▪ Analyze poetic styles of Sant Chokhamela, Kusumagraj, and others, understanding societal inequalities and social consciousness. ▪ Develop oratory and moderation skills for effective communication.
B.A. Part-II, Sem-IV	**वैचारिक लेख** **ललित लेख** **कविता** **व्यावहारिक मराठी**	▪ Explore the ideas of Tarabai Shinde, Babasaheb Ambedkar, and Jayant Narlikar, fostering a scientific approach with social consciousness. ▪ Study elegance experienced articles by K.C. Thackeray, Annabhau Sathe, and Vidyut Bhagwat, understanding symbolism related to customs and traditions. ▪ Analyze poetry by Sant Eknath, Shanta Shelke, and others, gaining insights into caste, creed, religion, and humanism. ▪ Gain practical Marathi skills related to brochures, invitations, and program announcements.
B.A. Part-III, Sem-V	**वैचारिक लेख** **ललित लेख** **कविता** **व्यावहारिक मराठी**	▪ Explore the thoughts of Mahatma Phule, V.D. Savarkar, and Dada Dharmadhikari, realizing human limitations in knowledge, science, religion, and reform. ▪ Study elegantly seasoned writing by The. H Bhosale, Bhaskar Chandanashiv, and Mukund Taksale, obtaining information about nature, trees, water, and social reality. ▪ Analyze poetic creations by Sant Tukaram, Balakvi, and others, gaining mystical knowledge, humanism, and philosophical insights. ▪ Acquire knowledge of writing minutes, newsletters, and occasional reports for practical use.

B.A. Part-III, Sem-VI	**वैचारिक लेख** **ललित लेख** **कविता** **व्यावहारिक मराठी**	▪ Gain knowledge through the ideological writings of Vs. Bh. Kolte, Govind Pansare, and Ashok Rana, understanding the thoughts and values of great men. ▪ Study fine styles of Bakhar Vangmay, Maruti Chitampalli, and Sakha Kalal, exploring language richness, heroism, and human-nature connections. ▪ Analyze poetry by Sheikh Mohammed, Narayan Surve, and others, developing knowledge beyond caste-religion and understanding human nature ▪ Develop practical Marathi skills in public statement and advertisement writing, gaining presentation and advertising styles
MA Part-I, Sem-I	**मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी(आरंभ ते १८१८)**	▪ Understand the impact of ancient and medieval social and cultural backgrounds on literature. ▪ Recognize the development of literature in modern times through cultural evolution.
	साहित्यविचार	▪ Analyze the process of literature creation. ▪ Comprehend the nature of interpreting literature and grasp its purpose.
	संतसाहित्य	▪ Gain an introduction to Saint literature. ▪ Understand the social, cultural, and religious conditions of the medieval period.
	विशेष वाङ्मय प्रकार - कविता	▪ Compose poetry with direction. ▪ Recognize the importance of poetry as a modern literary form.
MA Part-I, Sem-II	**मराठी वाङ्मयाची सांस्कृतिक पार्श्वभूमी (१८१८ ते १९६०)**	▪ Study the culture of Marathi Vadmaya. ▪ Explore the cultural background impacting literature in modern times.
	समीक्षाविचार	▪ Develop critical vision through subject study. ▪ Understand literature in terms of balance and engage in comparative studies.
	महानुभाव साहित्य	▪ Introduce Mahanubhava literature. ▪ Analyze Mhaimbhat's contribution to ancient Marathi language.
	विशेष वाङ्मय प्रकार : कादंबरी	▪ Understand the concept of Vadmayapraka. ▪ Compare the novel genre with other fantasy genres.
MA Part-II, Sem-III	**उपयोजीत मराठी**	▪ Acquire practical skills in various transactions. ▪ Realize the importance of using Marathi language in practical life
	भाषाविज्ञान	▪ Enrich linguistic awareness.

		▪ Develop linguistic skills for employment opportunities.
	विशेष ग्रंथकार - संत चोखामेळा	▪ Study the direction of a writer. ▪ Conduct a comprehensive study of a specific author's literature.
	दलित साहित्य	▪ Recognize Dalit literature as a significant stream. ▪ Deepen the sense of values such as freedom, equality, and justice.
MA Part-II, Sem-IV	**उपयोजीत मराठी**	▪ Continue gaining practical skills in various transactions. ▪ Reiterate the importance of using Marathi language in practical life.
	भाषाविज्ञान	▪ Further enrich linguistic awareness. ▪ Recognize sages like Svan and Svanim.
	मराठी वैचारिक साहित्य	▪ Develop a conceptual approach. ▪ Understand the basic thoughts of social reformers through conceptual literature.
	मुस्लीम मराठी साहित्य	▪ Introduce the Muslim literary stream. ▪ Recognize the noticeable development and differences in the material flow of literature
Subject- English		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**Compulsory English**	▪ Enhance the ability to analyze literary, rhetorical, and cultural works. ▪ Apply concepts from assigned texts in personal writing. ▪ Attain foundational knowledge of the English language and literature. ▪ Develop skills in writing diverse formats such as News Reports, Letters, Essays, and Paragraphs. ▪ Experience the enjoyment of various literary forms like Novels, Poems, and Plays.
B.A. Part-I, Sem-II	**Compulsory English**	▪ Refine interview techniques. ▪ Improve comprehension of prose, poetry, and short stories. ▪ Foster interest in the English language. ▪ Collaborate and communicate effectively in English. ▪ Recognize the connection between literature and real-life experiences.

B.A. Part-II, Sem-III	**Compulsory English**	▪ Explore different types of blogs. ▪ Understand various literary forms: Prose, Poetry, Drama, and Fiction. ▪ Develop knowledge of grammatical systems. ▪ Learn effective blogging strategies.
B.A. Part-II, Sem-IV	**Compulsory English**	▪ Strengthen the ability to analyze literary and cultural works. ▪ Interpret prose and poetry for a deeper understanding of literature and life. ▪ Cultivate language skills: Listening, Speaking, Reading, and Writing (LSRW). ▪ Enhance employability in fields like teaching, civil services, and creative writing.
B.A. Part-III, Sem-V	**Compulsory English**	▪ Grasp the steps involved in writing for websites. ▪ Interpret prose, poetry, and short stories. ▪ Improve reading speed and fluency. ▪ Enrich vocabulary through the course. ▪ Develop communication skills for registering complaints, making inquiries, and expressing opinions.
B.A. Part-III, Sem-VI	**Compulsory English**	▪ Compare and contrast different ideas. ▪ Understand the socio-political and cultural significance of literature. ▪ Recognize distinctive writing styles of prescribed authors. ▪ Gain insight into the mysteries and ironies of human life. ▪ Attain enhanced sensibility, critical depth, and maturity in expression
MA Part-I, Sem-I	**Paper-I, English Poetry from Chaucer to Alexander Pope**	▪ Develop a critical mindset and intellectual competence, essential for success in competitive exams like MPSC/UPSC/NET/SET. ▪ Apply language's evocative power, exercising critical insight and judgment for informed opinions. ▪ Gain familiarity with poets' socio-political and cultural backgrounds, understanding their distinctive styles and techniques. ▪ Cultivate enhanced sensibility and critical depth, reflecting in mature expression. ▪ Recognize the socio-political and cultural significance of literary poetic works. ▪ Critically appreciate unseen poetic texts using learned methods.

	Paper-II, English Drama to Shakespeare	▪ Gain insights into English drama genres and conventions through prescribed texts. ▪ Apply language's evocative power with critical insight for informed opinions. ▪ Understand distinctive styles and techniques of prescribed dramatists up to the Shakespearean era. ▪ Hone dramatic and performing skills. ▪ Recognize the socio-political and cultural importance of literary dramatic works. ▪ Critically appreciate unseen dramatic texts using learned methods.
	Paper-III, History of English Literature	▪ Appreciate the diversity of major literary traditions and eras. ▪ Develop into social thinkers and critics capable of addressing societal problems for social transformation. ▪ Grasp distinctive writing styles and techniques of prescribed writers. ▪ Provide historical accounts related to English Literature. ▪ Recognize the socio-political and cultural importance of literary historical works. ▪ Analyze authors' backgrounds and motivations.
	Paper-IV, Linguistics and Phonetics	▪ Cultivate a critical approach and intellectual competence for competitive exams. ▪ Study and collect basic knowledge on language nature. ▪ Grasp distinctive writing styles and techniques of prescribed writers. ▪ Research the place of language in society, correlating linguistic and phonetic theories. ▪ Understand the socio-political and cultural importance of linguistic theories. ▪ Explore the relationship between language and meaning at various levels.
MA Part-I, Sem-II	**Paper-I, English Poetry from Wordsworth to Modern Age**	▪ Develop a critical attitude and intellectual competence for competitive exams. ▪ Apply language's evocative power with critical insight for informed opinions. ▪ Understand poets' backgrounds and socio-political contexts, grasping distinctive styles and techniques. ▪ Acquire enhanced sensibility and critical depth in expression. ▪ Recognize the socio-political and cultural importance of literary poetic works. ▪ Critically appreciate unseen poetic texts using learned methods.
	Paper-II, English Drama after Shakespeare	▪ Gain insights into English drama genres and conventions through prescribed texts. ▪ Apply language's evocative power with critical insight for informed opinions.

		▪ Understand distinctive styles and techniques of prescribed dramatists up to the Contemporary era. ▪ Hone dramatic and performing skills. ▪ Recognize the socio-political and cultural importance of literary dramatic works. ▪ Critically appreciate unseen dramatic texts using learned methods.
	Paper-III, History of English Literature	▪ Appreciate the diversity of major literary traditions and eras. ▪ Emerge as social thinkers and critics addressing societal problems for social transformation. ▪ Grasp distinctive writing styles and techniques of prescribed writers. ▪ Provide historical accounts related to English Literature. ▪ Recognize the socio-political and cultural importance of literary historical works. ▪ Analyze authors' backgrounds and motivations.
	Paper-IV, Linguistics and Phonetics	▪ Cultivate a critical approach and intellectual competence for competitive exams. ▪ Enlighten basic knowledge on the nature of language. ▪ Grasp distinctive writing styles and techniques of prescribed writers. ▪ Further research on language's place in society, correlating linguistic and phonetic theories. ▪ Understand the socio-political and cultural importance of linguistic theories. ▪ Explore the relationship between language and meaning at various levels.
MA Part-II, Sem-III	**Paper-I, Indian Writing in English**	▪ Understand and assimilate fiction writing laws and principles. ▪ Critically appreciate and analyze fictional writing. ▪ Develop a historical sense through major literary traditions and social developments. ▪ Recognize factors behind R.K. Narayan's emergence and postcolonial writers' significance. ▪ Gain insight into trends and fashions in Indian society and culture. ▪ Attain a sense of history and understand impulses behind human actions.
	Paper-II, Critical Theory	▪ Probe literary and critical theories with expertise in literature. ▪ Develop ideological sense, social awareness, and cultural understanding. ▪ Acquire proficiency in expression and critical thinking through exposure to various genres. ▪ Gain knowledge for research, critical analysis, and an analytical approach. ▪ Emerge as social thinkers and critics addressing societal problems for social transformation. ▪ Contribute to various fields professionally.

	Paper-III, **(A) American Literature**	▪ Grasp distinctive writing styles of poets and creative writers. ▪ Develop a sense of history through major literary traditions and social developments. ▪ Gain insight into social norms and culture, understanding causes and consequences of human actions. ▪ Analyze the emergence and development of the Renaissance's influence on American society. ▪ Assimilate values and principles leading to progress and social well-being. ▪ Gain critical understanding and insight into the phenomenon of the Renaissance.
	Paper-IV, **History of English Language**	▪ Appreciate diversity of major literary traditions and eras. ▪ Understand factors behind Shakespeare's emergence as a great dramatist. ▪ Develop critical, analytical, logical thinking, and judgment. ▪ Provide historical accounts related to English Literature. ▪ Critically analyze events leading to the rise and glory of Elizabethan Literature. ▪ Grasp and assimilate critical temper and insight.
MA Part-II, Sem-IV	**Paper-I,** **Teaching of English Language and Literature**	▪ Gain insights into genres and conventions associated with teaching English language. ▪ Develop a comprehensive understanding of plot construction and characterization. ▪ Familiarize with theories, approaches, methods, and techniques for teaching English language. ▪ Use English language with ease and innovative teaching techniques. ▪ Understand the cultural and social importance of Teaching as a genre across chronological ages. ▪ Assess mainstream and subaltern cultures, appreciating their significance.
	Paper-II, **Critical Theory**	▪ Enhance artistic sensibility for word-music and critical appreciation of Criticism as an Art. ▪ Develop fertile imaginativeness and emotional depth and maturity. ▪ Perceive subtle nuances and shades of meaning in linguistic theories. ▪ Appreciate and assimilate suggestive and pictorial quality of language. ▪ Sharpen artistic and critical skills, acquiring qualities like picture sequences, terseness, conciseness, accuracy, aptness, freshness, etc., in expression. ▪ Better explore the subjective nature of Truth and Beauty.
	Paper-III, **(A) American Literature**	▪ Critically appreciate and interpret poetic works. ▪ Quote memorable passages in speech and writing.

		▪ Enhance artistic sensibility for word-music and critical appreciation of American Dramatic art. ▪ Understand various dramatic types and the origin of American Theatre drama. ▪ Understand and assimilate the laws and principles of dramatic composition. ▪ Acquire insight into the mysteries and ironies of human life.
	Paper-IV, **(A): Indian Writing in English**	▪ Grasp aesthetic understanding in texts related to Indian Writing in English. ▪ Apply logic and discrimination in decision. ▪ Craft insightful critical reviews of personal work. ▪ Analyze and differentiate between diverse ideas through comparison and contrast. ▪ Apply critical thinking and judgment to articulate well-informed opinions. ▪ Foster the acquisition of a critical attitude through the course.
Subject- Hindi		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**ASTHA**	▪ Grasp the fundamentals of Hindi grammar and standard language usage. ▪ Comprehend the works of Kabir, Surdas, and Bihari, including stories and poems. ▪ Cultivate a humane perspective while engaging in critical thinking. ▪ Appreciate the significance of Hindi literature, particularly kavyas. ▪ Explore rekhachitra and Nilkanth (samsmaran). ▪ Develop the ability to evaluate Hindi concepts and express creativity through writing poems and stories.
BA Part-I, Sem-II	**ASTHA**	▪ Consolidate understanding of Hindi grammar and linguistic norms. ▪ Deepen insights into the literary works of Kabir, Surdas, and Bihari. ▪ Foster a humanistic approach coupled with critical thinking skills. ▪ Explore kavyas, emphasizing the importance of Hindi literature. ▪ Examine rekhachitra and Nilkanth (samsmaran). ▪ Demonstrate proficiency in evaluating Hindi concepts and producing original poems and stories.

BA Part-II, Sem-III	**ABHA**	▪ Embrace a humane approach while cultivating critical thinking skills. ▪ Understand stories such as "mitrata," "bailgadi," and "Shiksha ka uddeshy." ▪ Explore various forms of Hindi poetry, including dohe, ghazals, and pad. ▪ Master advanced grammatical concepts: grammarunvay, Sandhi, samas, vigrah, and samsrut bhinnarthak shabd. ▪ Attain an advanced level of knowledge in a specialized field within Hindi studies.
BA Part-II, Sem-IV	**ABHA**	▪ Comprehend the fundamental concepts and origins of Hindi language. ▪ Analyze the narratives of "Karz," "Dukh Apna Apna Sacche Sapoot," "Raja ke Kailash," and "Sanskriti Hai Kya." ▪ Interpret Kavya, Pad, and Dohe. ▪ Grasp the nuances of grammar, including Padnaam, Paribhashik Shabdawali, Samman Suchak Shabd, and Vakya Parivartan. ▪ Explore the art of Vigyapan Lekhan and Vrutant Lekhan. ▪ Demonstrate proficiency in essay writing and distinguish between Samman Shabd used in Hindi and Marathi.
B.A. Part-III, Sem-V	**KAVYDARSH**	▪ Cultivate a humanistic perspective while engaging in critical thinking. ▪ Comprehend stories like "Sachhe Saput," "Ghar ki Talash," and "Bakul." ▪ Analyze various literary forms, including Kavya, Dohe, poems, ghazals, and Pad. ▪ Master grammatical aspects such as Unvay, Sandhi, Samas, Vigrah, and Samsrut Bhinnarthak Shabd. ▪ Apply linguistic knowledge in diverse fields through practical applications.= ▪ Attain an advanced level of expertise in specialized Hindi fields.
B.A. Part-III, Sem-VI	**KAVYDARSH**	▪ Gain an in-depth understanding of the foundational concepts and origins of Hindi. ▪ Analyze narratives like "Rupa ki Aji," "Mahanagar ki Maithili," and "Sayani Buwa." ▪ Interpret poetry, including Poems, Kavya, Pad, and Dohe. ▪ Explore grammatical elements like Padnaam, Paribhashik Shabdawali, Samman Suchak Shabd, and Vakya Parivartan. ▪ Develop proficiency in Vigyapan Lekhan and Vrutant Lekhan. ▪ Demonstrate essay-writing skills and knowledge of Hindi Sampreshan

		▪ Master the grammar of Prayojanmulak Hindi, encompassing Arth, Paribhasha, Swarup, Vyapti, and Visheshtaye
MA Part-I, Sem-I	**प्राची एंव मध्यकालीन काव्य**	▪ Demonstrate understanding of ancient poetic forms like Hindi and Muktaka. ▪ Analyze Bhakti period and post-medieval poetry characteristics. ▪ Acquire knowledge of key works, including Vidyapati Padawali and Kavir Panchayati. ▪ Identify philosophical elements in ancient and medieval poetry, both prose and verse. ▪ Appreciate the significance of Kabir's thoughts in this context.
	हिंदी साहित्य का इतिहास	▪ Develop awareness of foundational aspects in writing Hindi literature history. ▪ Understand and apply concepts like periodization and boundaries. ▪ Explore Siddha and Nath literature, Raso poetry, Jain poetry, cultural consciousness, and devotional movements. ▪ Comprehend the chronological development of Hindi literature. ▪ Cultivate caution toward linguistic purity in literature.
	काव्यशास्त्र एंव साहित्य लोचन	▪ Explore Riti Siddhant, covering poetic quality, Riti, and style concepts. ▪ Gain knowledge of Western poetics, including Plato's, Aristotle's, Tragedy analysis, Logan's sublime concept, Wordsworth's theory, Matthew Arnold's criticism, and T.S. Eliot's hypothesis. ▪ Understand literary theories like personal impersonality, objective equation, and incoherence of sensitivity.
	विशेष अध्ययन (प्रेमचंद)	▪ Acquire information on Hindi literature history, Premchand's significance, and insights into novels like Rangbhumi, Karmabhumi, Nirmala, and Godan. ▪ Familiarize yourself with various literary genres through the study of Premchand's stories, essays, and novels. ▪ Develop awareness of societal issues through the exploration of Premchand's works, fostering a sense of social responsibility. ▪ Gain an understanding of the purpose and principles of literature.
MA	**प्राची एंव मध्यकालीन काव्य**	▪ Gain an in-depth understanding of the literary personalities and works of prominent Hindi writers, fostering appreciation for their contributions to literature.

Part-I, Sem-II		▪ Explore the values and life philosophy embedded in Sufi literature, as exemplified through Tulsidas' Ram Charitra Manas, cultivating a holistic perspective on life.
	हिंदी साहित्य का इतिहास	▪ Develop an appreciation for ancient and medieval poetry by examining the cultural context and life philosophy prevalent during that period. ▪ Explore the development of Dalit literature through Prakash Dalkar's work, inspiring a desire among students to engage in creating literature that reflects social narratives. ▪ Identify contemporary societal issues through the study of plays, encouraging students to connect historical literary expressions with present-day challenges and propose solutions.
	काव्यशास्त्र एंव साहित्य लोचन	▪ Cultivate an interest in acting as students are drawn towards the performing arts through exposure to relevant literary works. ▪ Acquire knowledge of various literary theories and debates, including elitism, Marxism, psychoanalysis, and existentialism, enhancing students' analytical and critical thinking skills. ▪ Understand the diverse trends in Hindi literary criticism, including classical individualist, historical, comparative, impressionist, aesthetic, and sociological approaches.
	विशेष अध्ययन (प्रेमचंद)	▪ Expand vocabulary and literary knowledge through the study of Premchand's works, including proverbs, stories, essays, and biographies. ▪ Develop proficiency in various genres of prose literature by exploring visual lessons and understanding the personalities of poets, sparking a desire to contribute to literary creation.
MA Part-II, Sem. III	**आधुनिक काव्य**	▪ Evaluate and interpret contemporary Hindi poetry by Maithili Sharan Gupta, Saket Jaishankar Prasad, Kamayani Suryakant Tripathi Ram, and others, showcasing a grasp of ideological dynamics and poetic rejuvenation. ▪ Investigate and articulate perspectives on the exploration of Ravana in the works of female students, demonstrating an appreciation for diverse viewpoints in literary analysis. ▪ Cultivate a natural inspiration, nurturing a creative mindset, and exhibit the ability to derive meaningful interpretations from Nagarjuna's poetry. ▪ Demonstrate an interest in and create original modern poetry, reflecting the transformative impact of the course on their creative expression.

	आधुनिक गद्य साहित्य	▪ Critically analyze prose literature by Chandragupta Jaishankar Prasad, Mohan Rakesh, Manu Bhandari, and others, highlighting enhanced analytical and interpretive skills. ▪ Acquire knowledge about the emergence of Hindi prose king Aur Vikas, broadening their understanding of significant literary figures. ▪ Showcase the influence of the course on language enrichment and improved linguistic skills. ▪ Introduce various genres of prose literature, revealing a comprehensive understanding of the diverse forms within modern Hindi prose.
	भाषा विज्ञान एवं हिंदी भाषा	▪ Understand the origin and evolution of language, demonstrating knowledge of linguistic development. ▪ Grasp the nature of language, reflecting an awareness of fundamental linguistic principles. ▪ Identify socio-geographic changes in language, demonstrating an understanding of language's dynamic nature in different contexts. ▪ Develop an interest in applying scientific principles to language, incorporating scientific approaches in sentence construction. ▪ Introduce Hindi dialects and their regional variations, demonstrating a comprehensive understanding of linguistic diversity.
	निबंध एवं परियोजना	▪ Exhibit an understanding of various genres of Hindi literature through analytical essays and projects. ▪ Comprehend the purpose and evolution of time division in literature, showcasing a nuanced understanding of historical and literary contexts. ▪ Gain insights into the early Bhakti period, ritual period, and literature, fostering a sense of connection with marginalized societies. ▪ Stimulate interest among female students in the utility of contemporary discussion literature, reflecting an awareness of current literary trends and societal issues.
MA Part-II, Sem. IV	**आधुनिक काव्य**	▪ Gain an understanding of modern Hindi poetry with a renewed spirit and ideological dynamics. ▪ Analyze Nagarjuna's poems such as "Chandu Maine Sapna Dekha" and "Unhe Pranam," as well as Mahadevi Varma's poetry. ▪ Develop awareness of Adi's presence in the girl's consciousness through selected poems.

		▪ Develop interest in language science by learning about the features and standardization of the Devanagari script. ▪ Gain awareness of the constitutional status of Hindi. ▪ Explore linguistic aspects such as machine translation, statistical resources, and applications like e-mail ID, registration, and searching in the context of Hindi language. ▪ Explore the geographical locations of various provinces, dialect languages, and scripts in Hindi-speaking regions.
	आधुनिक गद्य साहित्य	▪ Acquire familiarity with modern prose literature, including dramas like "Kuch Shabd Kuch Rekhaen" by Vishnu Prabhakar. ▪ Explore novels and essays from authors such as Nilay Acharya Satyendra, Parmanand Srivastava, Chandradhar Sharma Guleri, Premchand, Jainendra Dharamveer Bharti, Kamleshwar, Usha Priyamvada, and Nirmal Verma.
	भाषा विज्ञान एवं हिंदी भाषा	▪ Identify and appreciate various elements in poetry, including rasas, chhands, and tuk. ▪ Foster an interest in creating poetry among students inspired by the studied modern poems.
	निबंध/परियोजना	▪ Acquire information about various discourses in Hindi literature, including Dalit, Tribal, Children, Women, and Kisan discussions. ▪ Develop the ability to critically engage with and discuss diverse subjects in Hindi literature. ▪ Compile books and projects that reflect a comprehensive understanding of various literary aspects. ▪ Understand the characterization presented by Gnanashkshetra and Vivek in literary works. ▪ Cultivate a sense of belonging towards marginalized societies through exposure to discussions on Dalit, Tribal, Children, Women, and Kisan issues. ▪ Witness an increase in critical thinking power among students as they engage with societal issues through literature.
Subject- Marathi Literature		
Class	**Course**	**Outcome (Students will .....)**
	तहान (कादंबरी)- सदानंद देशमुख	▪ Gain insight into societal issues pertaining to food, clothing, and shelter.

B.A. Part-I, Sem-I	**अर्वाचीन मराठी कविता - संपादित**	▪ Foster values of human consciousness through the exploration of poetry.
B.A. Part-I, Sem-II	**आई रिटायर होतेय (नाटक)- अशोक पाटोळे**	▪ Acknowledge the enduring service of mothers across generations, transcending age.
	अर्वाचीन मराठी कविता - संपादित	▪ Understand societal inequality and modes of self-expression through poetic works.
B.A. Part-II, Sem.III	**निवडक मराठी कथा- संपादित**	▪ Gain insight into positive and negative human values through the characterization of story figures.
	संत तुकारामांचे निवडक अभंग - डॉ. आ. ह. साळुंखे	▪ Recognize signs of social disparity grounded in spiritual teachings.
B.A. Part-II, Sem.IV	**आठवणींचे पक्षी - प्रा. प्र. ई. सोनकांबळे**	▪ Foster self-consciousness by exploring human life, conflicts, and social disparities.
	लीळाचरित्रतील निवडक कथा - राजेंद्र राऊत	▪ Acquire knowledge about ancient social statuses, miracles, customs, and language.
B.A. Part-III, Sem-V	**मिरासदारी - द.मा. मिरासदार**	▪ Understand the purpose, nature, and production process of literature.
	साहित्य विचार - डॉ. दत्तात्रय पुंडे, डॉ. स्नेहल तावरे	▪ Explore the intricate relationship between literature and the human mind.
B.A. Part-III, Sem-VI	**एक होता कार्व्हर - वीणा गवाणकर**	▪ Introduction to research on seemingly normal personalities.
	भाषा विज्ञान परिचय - डॉ. स.गं. मालशे, डॉ. दत्तात्रय पुंडे, डॉ. अंजली सोमण	▪ Understand the forms, uses, and theories of language as a tool for expressing ideas and identifying scientific terminology

Subject- English Literature

Class	**Course**	**Outcome (Students will .....)**

B.A. Part-I, Sem-I	**English Literature**	▪ Explore Literary Movements across different historical periods. ▪ Define Literary Theories and Criticism Terms. ▪ Foster reading, writing, and analytical capabilities. ▪ Cultivate critical and creative communication skills. ▪ Gain insights into genres and conventions of English drama.
B.A. Part-I, Sem-II	**English Literature**	▪ Analyze diverse literary forms. ▪ Familiarize with structures, aesthetics, and techniques in literature. ▪ Attain competence and clarity in understanding literary elements. ▪ Communicate effectively in written and oral English. ▪ Stimulate critical thinking skills.
B.A. Part-II, Sem-III	**English Literature**	▪ Evaluate the 'Background to the Study of English Literature.' ▪ Identify literary elements, poetry elements, and the Metaphysical school of poetry. ▪ Understand the origin and development of essays. ▪ Gain knowledge of introductory literary terms. ▪ Comprehend different forms of advertising.
B.A. Part-II, Sem-IV	**English Literature**	▪ Evaluate various types of reports. ▪ Develop dramatic and performing skills. ▪ Grasp various soft skills. ▪ Enjoy reading English short stories. ▪ Apply soft skills in daily life.
B.A. Part-III, Sem-V	**English Literature**	▪ Familiarize and adapt sentence construction to situational needs. ▪ Differentiate between acceptable and unacceptable English sentences. ▪ Create grammatically correct and appropriate English sentences. ▪ Enhance poetic skills and appreciate poetry as a literary art. ▪ Develop language proficiency through listening, speaking, reading, and writing.
B.A. Part-	**English Literature**	▪ Familiarize and adapt sentence construction to situational needs. ▪ Hone dramatic and performing skills.

III, Sem-VI		▪ Develop critical, analytical, logical thinking, and judgment. ▪ Enhance poetic skills and appreciate poetry as a literary art. ▪ Develop language proficiency through listening, speaking, reading, and writing.
Subject- Hindi Literature		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**Hindi Literature**	▪ Explore various genres of Hindi literature, enhancing interest. ▪ Recognize the significance of standard script and language. ▪ Encounter diverse issues through stories, fostering problem-solving skills. ▪ Develope critical thinking and writing skills.
B.A. Part-I, Sem-II	**Hindi Literature**	▪ Heighten interest in drama and gained insights into theater. ▪ Develope an affinity for acting. ▪ Receive an introduction to cultural aspects. ▪ Enhance learning-related skills, including Natrang plays and Andhadhund novels.
B.A. Part-II, Sem-III	**Hindi Literature**	▪ Deepen interest in Hindi literature and explored narrative genres. ▪ Engage through stories, poems, interviews, sketches, and novels. ▪ Delve into Natarang Kitab and studied the tradition of Hindi literature. ▪ Introduce prominent literary figures like Acharya Ramchandra, Premchand, and Krishna Sobti.
B.A. Part-II, Sem-IV	**Hindi Literature**	▪ Increase interest in drama and gained theatrical insights. ▪ Attracte to Abhinaya, explored meanings of poems from Kavya Darpan. ▪ Aware of Ritual and Bhakti Ka. ▪ Understand Rasa, Shabd Shakti, Characteristics, and Principles of Poetry.
B.A. Part-III, Sem-V	**Hindi Literature**	▪ Sustain interest in Hindi literature, exploring various narrative genres. ▪ Connect emotionally through diverse mediums. ▪ Exposure to Gadh Gaurav Raghav Publication kitab and the tradition of studying Hindi Literature. ▪ Aware of Nahush, Gupta Ki Ekanki, and the Hindi renaissance period.
B.A.	**Hindi Literature**	▪ Continue interest in drama, acquiring theatrical knowledge.

Part-III, Sem-VI		▪ Attract to Abhinaya, explored Nirala's kavya yatra and Dhumil's literary compositions. ▪ Study Prose Gaurav and delved into the works of Mochiram, exploring death in poetry, and the beauty of river Narmada. ▪ Students will demonstrate a comprehensive understanding of key concepts such as Rasa, Shabd Shakti, Experimentalism, Progressivism, and Shadowism, enabling them to critically analyze and interpret artistic works within these frameworks. ▪ Participants will be able to apply the acquired knowledge of Rasa, Shabd Shakti, Experimentalism, Progressivism, and Shadowism to creatively experiment with and analyze various forms of artistic expression, fostering a deeper appreciation for diverse cultural and artistic traditions.
Subject- Economics		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**Micro Economics**	▪ Apply economic knowledge and skills to gain employability, focusing on analyzing consumer behavior, demand and supply, and elasticity. ▪ Analyze the impact of economic events on markets, fostering a new approach to the study of Economics. ▪ Illustrate the application of microeconomic concepts in real-life situations, examining firm performance under different market structures. ▪ Evaluate factors influencing firm behavior, such as production and costs, and gain awareness of pricing factors like Rent, Wages, Interest, and Profit.
B.A. Part-I, Sem-II	**Economy of Maharashtra**	▪ Understand the geographical and economic features of Maharashtra's economy. ▪ Analyze demographic features, causes, and impacts of population growth, relating them to economic development. ▪ Explore the role of Agriculture, effects of the green revolution, and the significance of Industry and Infrastructure in Maharashtra.

		▪ Investigate issues in the Vidarbha Region, including Farmers' Suicides and Irrigation Backlog, and explore available natural resources.
B.A. Part-II, Sem-III	**Macro Economics**	▪ Explain national income, its calculation methods, and related concepts. ▪ Understand money, Fisher's Quantity Theory of Money, inflation, and deflation. ▪ Explore the consumption function, APC and MPC relationship, and the multiplier concept. ▪ Differentiate between inter-regional and international trade, using Ricardo's comparative cost theory to explain the benefits of international trade.
B.A. Part-II, Sem-IV	**Banking**	▪ Acquire knowledge of banking fundamentals and operations. ▪ Identify types of banks, understand commercial banks' functions, and explore credit creation. ▪ Examine the functions of Central banks, suggest credit control instruments, and understand Cooperative Bank and NABARD objectives. ▪ Analyze the roles and functions of IMF and World Bank, and comprehend recent services in the banking sector.
B.A. Part-III, Sem-V	**Indian Economy**	▪ Develop a comprehensive understanding of the Indian Economy. ▪ Explore basic characteristics and economic planning in the Indian context. ▪ Understand the role of Agriculture and Industries in economic development, analyzing the impact of international trade. ▪ Assess causes and measures of poverty and unemployment, and comprehend environmental concepts and pollution causes/effects.
B.A. Part-III, Sem-VI	**Demography**	▪ Grasp the basics of demography and study established population theories. ▪ Understand social demographic variables and their influence on population growth, composition, and structure. ▪ Critically analyze migration and urbanization concepts. ▪ Identify data sources, perform demographic analyses, and explore population policy's impact on socio-economic issues.
MA	**Paper-I, Micro Economics-I**	▪ Demonstrate understanding of microeconomic principles. ▪ Interpret utility, demand-supply, and elasticity concepts.

Part-I, Sem-I		▪ Apply these concepts to analyze economic policy problems. ▪ Analyze the perfectly competitive market framework. ▪ Assess microeconomic relationships and frameworks. ▪ Devise pricing strategies, calculate firm productivity, and analyze costs.
	Paper-II, Macro Economics-I	▪ Explain the evolution and functions of money. ▪ Understand national income concepts. ▪ Explore money supply and high-powered money. ▪ Familiarize with Keynesian theory of employment. ▪ Comprehend consumption function theories. ▪ Evaluate monetary and fiscal policy effects.
	Paper-III, Statistics for Economics	▪ Describe basic statistics concepts. ▪ Recognize the significance of statistics in Economics. ▪ Understand survey, data collection, and presentation issues. ▪ Explore the role of CSO & NSSO. ▪ Calculate and apply central tendency, dispersion, skewness, correlation, and regression.
	Paper-IV, Agriculture Economics	▪ Understand agricultural economics scope. ▪ Analyze rural infrastructure and agricultural production. ▪ Examine issues related to agricultural and economic development ▪ Address farm management and agricultural risk types. ▪ Explore labor supply, mobility, and segmentation in labor markets. ▪ Evaluate agricultural finance problems and suggest improvements. ▪ Understand agricultural growth in India and globalization effects.
	Paper-V, History of Economic Thought	▪ Paper-V: History of Economic Thought ▪ Familiarize with mercantilism and physiocracy. ▪ Introduce classical economists' economic thoughts. ▪ Explore critiques of classicism and modern economic thoughts. ▪ Understand economic thoughts of Indian economists.

MA Part-I, Sem-II	**Paper-I, Micro Economics-II**	▪ Demonstrate thorough understanding of microeconomic principles. ▪ Interpret Monopolistic and Oligopolistic market frameworks. ▪ Break down welfare economics nuances. ▪ Review and apply concepts to solve economic policy problems. ▪ Devise and apply game-theoretic solutions for decision-making.
	Paper-II, Macro Economics-II	▪ Understand real economic issues and policy outcomes. ▪ Gain knowledge of interest rates and inflation theories. ▪ Explore inflation in developing economies. ▪ Learn about the demand for money and business cycles.
	Paper-III, Statistics for Economics-II	▪ Understand Sampling & Estimation concepts. ▪ Use sample survey on various issues. ▪ Test hypotheses using statistical tests. ▪ Understand time-series trends for forecasting. ▪ Explore uses of Probability. ▪ Calculate Index Numbers.
	Paper-IV Rural Development	▪ Explore rural development definitions, concepts, and scope. ▪ Explain types of agriculture, including horticulture and dairying. ▪ Understand Panchyat Raj and Cooperative Movement in Rural Economy. ▪ Examine rural labor issues and government-run development programs.
	Paper-V Co-operation	▪ Understand cooperative principles and values. ▪ Explore the origin and development of the Cooperative movement. ▪ Know the role of NAFED & Co-operative agro-based industries. ▪ Examine various types of cooperative societies. ▪ Create awareness about cooperative organizations in rural and urban areas. ▪ Understand the financial institute framework and cooperative auditor's role.
	Paper-I, Economic Growth,	▪ Realize the concept of economic development. ▪ Gain knowledge about economic development aspects.

MA Part-II, Sem-III	**Development and Planning-I**	▪ Understand classical and neo-classical theories of economic development. ▪ Explore modern theories of economic development.
	Paper-II International Trade & Finance	▪ Learn classical and modern theories of international trade. ▪ Realize gains of international trade and its relationship with economic development. ▪ Understand the balance of payments.
	Paper-III Indian Economic Policy	▪ Learn features of the Indian economy. ▪ Understand Indian poverty, employment, and income. ▪ Realize agriculture and industrial policies. ▪ Explore infrastructure, social security, and the service sector.
	Paper-IV Research Methodology for Economics	▪ Understand and apply basics in research methodology. ▪ Select appropriate research designs. ▪ Implement research projects, collect, edit, and analyze data. ▪ Develop qualitative and quantitative data analysis skills.
MA Part-II, Sem-IV	**Paper-I Economic Growth, Development and Planning-II**	▪ Gain an idea about economic planning and development. ▪ Understand the theory of economic development. ▪ Explore pectoral aspects of economic development. ▪ Realize the relationship between international trade and economic development. ▪ Understand economic development policy.
	Paper-II International Trade & Finance	▪ Learn about India's international trade policy. ▪ Understand regional economic blocks and WTO. ▪ Know about foreign capital and functions of MNCs.
	Paper-III Indian Economic Policy	▪ Gain knowledge of balance of payment and trade policy. ▪ Learn about foreign capital, exchange, and multinational corporations. ▪ Realize the impact of globalization. ▪ Be introduced to monetary and fiscal policy. ▪ Understand economic planning and policy.
	Paper-IV	▪ Understand the basics of demography.

	Demography	▪ Study established theories of population. ▪ Analyze core social demographic variables and their influence. ▪ Critically analyze migration and urbanization concepts. ▪ Identify appropriate data sources and perform basic demographic analyses. ▪ Explore population policy and its impact on socio-economic issues.
Subject- Political Science		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**Indian Constitutional Provisions and Local Self Government**	▪ Grasp the importance of the Indian constitution as the foundational law of the nation. ▪ Fulfill fundamental duties and discern responsibilities in national development. ▪ Analyze the Indian Political System, encompassing the roles and functions of Union and State Governments. ▪ Critically examine key institutions of the Indian Union, including the Executive and Legislature. ▪ Acknowledge the robustness of India's Judiciary in safeguarding human rights.
B.A. Part-I, Sem-II	**Indian Constitutional Provisions and Local Self Government**	▪ Assess the significance of the Election Commission of India in ensuring free and fair elections. ▪ Identify and evaluate the powers and responsibilities of political figures like the Governor and Chief Minister. ▪ Describe the structure and powers of the Legislative Assembly and Legislative Council. ▪ Evaluate the impact of Local Self-Government in Maharashtra on governance. ▪ Examine the composition, functions, and powers of Gram Panchayat and Gram Sabha in rural local governance.
B.A. Part-II, Sem-III	**Selected Constitutions and International Relations (U,K.,U.S.A)**	▪ Understand the significance of the Crown, Prime Minister, and Cabinet in the UK's unwritten constitution. ▪ Explain the powers and roles of the House of Lords and the House of Commons in the UK's parliamentary system. ▪ Evaluate the functions and responsibilities of key figures in the USA Constitution.

		▪ Investigate the composition and roles of the Senate and House of Representatives in the US legislature. ▪ Acquire knowledge about the functioning and jurisdiction of the US Supreme Court. ▪ Examine the structure, purpose, and function of SAARC.
B.A. Part-II, Sem-IV	**Selected Constitutions and International Relations (U,K.,U.S.A &China)**	▪ Understand the role of governmental Standing Committees in China and their impact on governance. ▪ Analyze key institutions in China's central system, such as the State Council, Prime Minister, and Communist Party. ▪ Comprehend the structure and functioning of the United Nations Organization and its specialized agencies. ▪ Explain the importance of the Security Council, Secretary-General, and International Court of Justice within the UN. ▪ Analyze major issues influencing India-China relations.
B.A. Part-III, Sem-V	**Modern Concepts and Policy in polities**	▪ Acquire leadership skills and understand the role of leadership. ▪ Understand the nature of Indian nationalism. ▪ Describe the characteristics of a communist system and its current situation in India. ▪ Explore acts of terrorism and their implications.
B.A. Part-III, Sem-VI	**Indian Constitutional Provisions and Local Self Government**	▪ Explain the significance of the Election Commission of India. ▪ Know the powers and roles of the Governor, Chief Minister, and Council of Ministers. ▪ Understand the structure and powers of the Legislative Assembly and Legislative Council. ▪ Recognize the importance of Local Self-Government in Maharashtra. ▪ Familiarize yourself with the composition, function, and powers of Gram Panchayat and Gram Sabha.
MA Part-I, Sem-I	**Paper-I (Political Thought in Modern India)**	▪ Explore the ideologies and contributions of key figures in modern Indian history. ▪ Evaluate the diverse streams of Indian Political Thought. ▪ Compare and contrast ideas from Indian Political Thinkers. ▪ Demonstrate a deep understanding of the ideological foundations of nation-building in India. ▪ Acquaint with the evolution of Indian Political Thought, spanning from Ram Mohan Roy to Dr. Punjabrao Deshmukh.

		▪ Critically analyze the development of Indian Political Thought throughout history.
	Paper-II **(Indian Government and Politics)**	▪ Gain comprehensive knowledge of India's constitutional development and principles. ▪ Understand fundamental rights and constitutional amendments. ▪ Grasp the structure and functions of the Supreme Court and its role in the legal system. ▪ Acquaint with the intricacies of the electoral process in India. ▪ Analyze significant issues in Indian politics, such as caste dynamics, religious influences, regionalism, and language-related challenges. ▪ Develop the ability to critically assess India's political landscape, integrating constitutional principles with real-world scenarios.
	Paper-lll **(Public Administration)**	▪ Understand the meaning, nature, and historical development of public administration. ▪ Identify and compare various approaches and methods used in public administration. ▪ Comprehend fundamental concepts and diverse types of organizations within the administrative framework. ▪ Analyze and describe the intricacies of administrative organization. ▪ Demonstrate knowledge of bureaucracy and its defining characteristics. ▪ Evaluate the significance of bureaucracy in public administration and governance.
	Paper-lV **(Theories of International Relations)**	▪ Understand the scope and subject matter of international relations and various theories. ▪ Comprehend the concept of power, including national power and its role in shaping global dynamics. ▪ Acquaint with the management of national power, principles of diplomacy, and global engagement. ▪ Gain insights into disarmament, arms control, and efforts to reduce military tensions. ▪ Explore the concept of non-alignment and its role in international politics. ▪ Understand the New International Economic Order and its implications for global economic relations.
MA Part-I, Sem-II	**Paper-I** **Political Thought in Modern India**	▪ Comprehend the contributions and ideologies of key figures in modern Indian history. ▪ Evaluate diverse ideological streams in Indian Political Thought. ▪ Compare and contrast ideas and theories of prominent Indian Political Thinkers. ▪ Explain the ideological basis for nation-building in India.

		▪ Familiarize with the evolution of Indian Political Thought from Mahatma Phule to Rashtrasant Tukdoji Maharaj. ▪ Develop analytical skills in examining political ideologies in the context of India's history and contemporary challenges.
	Paper-II, Indian Government and Politics	▪ Gain a comprehensive understanding of Directive Principles of State Policy and their significance. ▪ Demonstrate a critical analysis of Indian Federalism and its features, strengths, and challenges. ▪ Comprehend the complex nature of the centre-state relationship and its implications for policymaking. ▪ Analyze issues of religion, language, regionalism, and Naxalism in the Indian political context. ▪ Acquire the ability to critically assess state politics, including regional parties and electoral systems. ▪ Identify and evaluate key issues and trends in Indian politics at national and state levels.
	Paper – III (Public Administration)	▪ Comprehend the mechanism and significance of budgets in administration. ▪ Acquaint with the concept of administrative accountability and responsible decision-making. ▪ Gain an understanding of personnel administration and efficient human resource management. ▪ Analyze the role of globalization and liberalization in public administration. ▪ Understand the concept of governance and good governance for effective and ethical leadership. ▪ Integrate political science knowledge with public administration concepts for practical applications.
	Paper – IV (Theories of International Relation)	▪ Understand and assess the consequences of the end of the Cold War on international relations. ▪ Gain a comprehensive understanding of North-South and South-South dialogues. ▪ Comprehend the impact of globalization on international relations, including economic interdependence. ▪ Investigate global environmental issues and their effects on international cooperation and conflicts. ▪ Explore the complex interplay between terrorism and human rights in international relations. ▪ Develop the ability to propose comprehensive solutions to global challenges in international relations.
MA Part-II, Sem-III	**Paper – I (Western Political Thought And Theory)**	▪ Comprehend and evaluate contributions and ideas of western political philosophers. ▪ Analyze different ideological streams within western political thought. ▪ Compare and critically assess ideas and theories proposed by various Western Political Thinkers.

		▪ Develop a comprehensive understanding of the ideological foundations in western political thought. ▪ Acquaint with the historical evolution of Western Political Thought from Plato to John Rawls and Robert Nozick. ▪ Examine and interpret complex political ideas within the context of Western Political Thought.
	Paper – II **(Research Methodology)**	▪ Understand the significance of scientific methods and objectivity in political science research. ▪ Demonstrate the significance of social research in policy making and political analysis. ▪ Comprehend different methodologies and techniques used in social research. ▪ Acquaint with the process of identifying and defining research topics in political science. ▪ Comprehend hypothesis formulation and its significance in guiding research questions. ▪ Apply scientific principles to conduct research projects in political science.
	Paper – III **(Diplomacy and Indian Foreign Policy)**	▪ Comprehend diplomacy's meaning, nature, scope, and methodologies. ▪ Identify the significance and functions of CONSULS in international relations. ▪ Acquire knowledge about the recruitment, roles, and essential qualities of Diplomats. ▪ Gain insights into the essence and objectives of foreign policy, with a focus on Indian foreign policy's significance. ▪ Analyze the complex process involved in formulating foreign policies. ▪ Develop a critical understanding of the interactions and dynamics shaping international relations.
	Paper – IV **(International Law and International Organization)**	▪ Demonstrate a comprehensive understanding of International Law, including its historical development and key principles. ▪ Identify and explore diverse subjects and areas covered by International Law. ▪ Acquire in-depth knowledge of International Laws of War, including just war theory and humanitarian law. ▪ Analyze the meaning, nature, and significance of International Organizations. ▪ Examine the evolution and development of International Organizations in response to global challenges. ▪ Evaluate the interchange between International Law and Organizations to maintain peace, security, and stability globally.

MA Part-II, Sem-IV	**Paper – I (Western Political Thought and Theory)**	▪ Demonstrate a comprehensive understanding of Democratic Socialism and its role in contemporary political systems. ▪ Analyze and evaluate various political theories, including their meanings, nature, and historical context. ▪ Understand the significance and implications of Behaviouralism in the study of political science. ▪ Examine critically and discuss the concepts of Power, Authority, and Legitimacy in political contexts. ▪ Identify and analyze essential elements of the State and Sovereignty and their interplay in shaping political structures. ▪ Develop a knowledge base for applying political science principles to real-world scenarios, fostering critical thinking.
	Paper – II (Research Methodology)	▪ Acquaint with the meaning and characteristics of research design in political science. ▪ Demonstrate proficiency in data processing and sampling techniques relevant to political science research, acquiring the ability to handle and analyze data systematically. ▪ Explore various data collection methods in political science research, understanding the strengths and limitations of each approach. ▪ Analyze and interpret data in the context of social research, learning to draw meaningful conclusions regarding political issues. ▪ Recognize the significance of case study analysis in political science and master the art of effective report and thesis writing.
	Paper–III (Diplomacy and Indian Foreign Policy)	▪ Identify and analyze key institutions involved in foreign affairs, such as the Foreign Affairs Department and Embassies. ▪ Explain the roles and responsibilities of diplomats and their significance in international relations. ▪ Compare and contrast the Liberal and Realist phases of Indian Foreign Policy, understanding their respective principles and implications. ▪ Analyze post-liberalization phases of Indian Foreign Policy and their impact on international relations.

		▪ Evaluate the dynamics of National Security, including the factors influencing it and its significance in shaping foreign policy decisions. ▪ Develop a comprehensive understanding of the interactions between national security and foreign affairs, exploring their implications on global politics
	Paper – IV (International Law and International Organization)	▪ Understand the concept of Terrorism and its implications in International Law. ▪ Acquire knowledge about the structure, functions, and significance of the International Court of Justice. ▪ Comprehend the principles and regulations governing Laws of Neutrality in international conflicts. ▪ Analyze the historical background and functions of the League of Nations. ▪ Evaluate the aims, objectives, and significance of the United Nations Organization (U.N.O.). ▪ Demonstrate a comprehensive understanding of various aspects of International Law and International Organizations and their impact on global politics.
Subject- History		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**History of India (From Earliest Times to 1205 A.D.)**	▪ Analyze and interpret ancient Indian historical sources, gaining insights into socio-economic, political, and cultural aspects. ▪ Acquire knowledge about territorial empires, focusing on the Mauryan and post-Mauryan periods. ▪ Gain in-depth understanding of the Gupta Empire, exploring its achievements and contributions. ▪ Explore the Vardhan Empire, Deccan, and South Indian dynasties, understanding their historical and cultural significance. ▪ Examine Arab and Turk invasions and their impact on ancient Indian society, economy, and culture. ▪ Gain insights into various aspects of ancient Indian society, including education, women's roles, judicial administration, art, architecture, and social structures.
B.A.	**History of India**	▪ Demonstrate comprehensive understanding of Delhi Sultanate establishment, expansion, and consolidation.

Part-I, Sem-II	**(From 1206 A.D.to 1525 A.D.)**	▪ Acquire in-depth knowledge of Allauddin Khilji's reign, including political strategies and economic measures. ▪ Assess reforms by Mohammad Tughluq and Firoz Shah Tughlaq, examining successes, failures, and implications. ▪ Explore factors contributing to the rise of the Bahmani Kingdom and Vijayanagar Empire in the Deccan. ▪ Examine Delhi Sultanate's political structure, administrative hierarchy, societal aspects, and women's roles. ▪ Explore economic, technological advancements, arts, education, and religious movements during the Sultanate Period.
B.A. Part-II, Sem-III	**History of India (From 1526 to 1756 A.D.)**	▪ Demonstrate comprehensive understanding of Medieval India, focusing on Mughal Empire's establishment and consolidation. ▪ Understand Mughal political system, ruling classes, and their roles in governance. ▪ Gain insights into Mughal Empire's interactions with Rajput kingdoms, especially during Akbar and Aurangzeb's reigns. ▪ Analyze factors contributing to the decline and downfall of the Mughal Empire, including economic structure. ▪ Explain societal and religious diversity within the Mughal Empire, showcasing educational practices and literary achievements. ▪ Acquire knowledge about Maratha history, the rise of Maratha power, and political, military, judicial, fiscal, and religious policies under Maratha rule.
B.A. Part-II, Sem-IV	**History of India (From 1757 to 1947A.D.)**	▪ Gain knowledge about European powers' arrival in India, focusing on Portuguese, French, and British impact. ▪ Understand British dominion, expansion strategies, and mechanisms for consolidating rule in India. ▪ Acquaint with causes, nature, and consequences of the Revolt of 1857 in India's struggle against British rule.

		▪ Explore implications of the Queen's Proclamation, its impact on socio-religious movements, and modern education in India. ▪ Understand factors leading to the rise of nationalism in India and its significance in the country's freedom struggle. ▪ Explore India's constitutional development, revolutionary movements, and leaders like Subhash Chandra Bose in the struggle for independence.
B.A. Part-III, Sem-V	**History of Modern World (From 1780 to 1920 A.D.)**	▪ Explore the French Revolution, emergence of Napoleon Bonaparte, Congress of Vienna, and their historical significance. ▪ Acquire extensive knowledge about the Making of Nations, including the status of Italy and Germany, and Bismark's foreign policy. ▪ Understand the Triple Entente, Russo-Japanese War, First World War, and President Woodrow Wilson's Fourteen Points. ▪ Gain knowledge about the U.S.A.'s entry into the First World War, concepts of communism, capitalism, socialism, and the Russian Revolution.
B.A. Part-III, Sem-VI		▪ Understand the rise of fascism in Italy, Nazism in Germany, Stalin's rise in Russia, and the Great Economic Depression. ▪ Acquire knowledge about the causes and results of the Second World War, U.S.A.'s entry, and diplomatic conferences. ▪ Learn about the United Nations Organization and the emergence of the U.S.A. and U.S.S.R. as world powers. ▪ Gain insights into the causes and effects of the Cold War, Truman Doctrine, Marshall Plan, Point Four Programme, and military alliances. ▪ Explore the Suez Crisis, Eisenhower Doctrine, European Unity and Disunity, and the European Common Market.
MA Part-I, Sem-I	**Paper-I, Historiography**	▪ Demonstrate a comprehensive understanding of the nature, scope, and various types of historiography. ▪ Analyze and differentiate historical approaches and methodologies.

		▪ Identify and evaluate primary and secondary historical sources, demonstrating the ability to distinguish reliable information. ▪ Acquire skills to critically analyze historical events, practices, and ideas, while discerning bias and unreliability. ▪ Apply internal and external criticism to assess historical accounts' accuracy and credibility. ▪ Explore history as both an art and science, appreciating the creativity in interpreting events and the systematic approach to research. ▪ Compare ancient Indian, Greco-Roman, and Chinese traditions, gaining a broader perspective on cultural developments. ▪ Demonstrate knowledge of significant historical thinkers and comprehend the evolution of historical thought.
	Paper-II **Ancient India** **(From Earliest Time to 606 A.D.)**	▪ Explore sources of Ancient India, including Pre-History, Proto History, and Early Historic India. ▪ Understand the Later Vedic Age, Janapadas, Mahajanpadas, Religious Movements, Iranian & Macedonian Invasions, and their effects. ▪ Gain knowledge about Nandas, Mauryas, Ashoka's Dhamma, Post Mauryan developments, and Satavahanas Dynasty. ▪ Acquire insights into Kushanas society, Sangam Age, Guptas Polity, Economy, Society, Vakatakas, and land grants
	Paper-III **India Under the Sultanate Period** **(1206 to 1526 A.D.)**	▪ Identify and explain sources, foundation, and consolidation of the Sultanate period, including key historical figures. ▪ Gain comprehensive knowledge of Administrative and Economic Reforms during Mohammad-bin-Tughlaq and Feroz Shah Tughlaq's rule. ▪ Understand the historical context of Bahamani and Vijayanagar Kingdoms, analyzing their contributions and significance. ▪ Explore agrarian economy, trade, commerce, monetary system, and social conditions during the Sultanate period. ▪ Develop insights into architectural traditions in India, focusing on regional styles and analyzing their cultural significance.

	Paper-IV **Modern World** **(from 1871 to 1945 A.D.)**	▪ Explain the development and impact of capitalism and imperialism on global trade and colonization. ▪ Acquire knowledge about factors leading to the First World War and its consequences on global politics and economy. ▪ Examine peace settlements post-World War I and their long-term impact on international relations. ▪ Explore the Russian Revolution, rise of fascism, and analyze foreign policies of Japan, France, and the Soviet Union during World War II.
MA Part-I, Sem-II	**Paper-I** **Trends and Theories of History**	▪ Identify Imperialist and Nationalist History Writing, understanding key figures such as James Mill and R.C. Mujumdar. ▪ Examine Orientalist and Marxist History Writing, becoming familiar with William Jones and R.S. Sharma. ▪ Analyze Theological and Subaltern History Writing, gaining insights into figures like Saint Augustine and Ranjit Guha. ▪ Explore Cyclical, Comparative, and Ecological Approaches to History for a comprehensive understanding. ▪ Critically evaluate Themes of History, focusing on Religion and Culture, Varna, Caste, and Gender.
	Paper-II **Ancient India** **(606 to 1206 A.D.)**	▪ Paper-II, Ancient India (606 to 1206 A.D.) ▪ Understand historical sources for studying ancient India and critically analyze archaeological, literary, and epigraphic sources. ▪ Explore political landscape post-Vardhan India, dynasties, Arab and Turkish invasions, and forms of legitimization used by rulers. ▪ Comprehend Post Vardhan economy, including agrarian and urban systems, trade, craft guilds, and coinage. ▪ Investigate social aspects, including status of women, religious practices, Bhakti movements, and significance of literature, art, and architecture. ▪ Analyze historical developments, connecting political, economic, and socio-cultural aspects.
	Paper-III **India Under the Mughals**	▪ Paper-III, India Under the Mughals (1526 to 1707 A.D.)

	(1526 to 1707 A.D.)	▪ Identify and analyze historical sources related to the Mughal period, gaining insights into prominent emperors. ▪ Comprehend Mughal administrative structure, revenue system, and trade and commerce practices. ▪ Explore social conditions, including status of women, religious movements, and advancements in art and architecture. ▪ Analyze factors contributing to the Golden Age of the Mughal period, examining socio-political, economic, and cultural aspects.
	Paper-IV **Contemporary World:** **(1945 to 2000 A. D.)**	▪ Understand ideological and political factors leading to the Cold War and its global impact. ▪ Acquire knowledge about challenges faced by post-war Germany, rise of communism in China, and disintegration of the Soviet Union. ▪ Explore collapse of communist regimes in East Europe, civil rights movements, apartheid in South Africa, and feminist movements. ▪ Analyze the emergence of a unipolar world, reunification of Germany, Kuwait Crisis, and implications of globalization on historical developments.
MA Part-II, Sem-III	**Paper – I** **History of India** **(1857 to 1947 A.D.)**	▪ Understand the historical significance of the Revolt of 1857 and its impact on the Indian National Congress. ▪ Analyze resistance trends leading to 1919, exploring various forms of protests and uprisings. ▪ Gain insights into the political landscape, ideology behind Satyagraha movements, and the Government of India Act of 1935. ▪ Investigate communal politics during the struggle for independence and the partition of India. ▪ Demonstrate economic organization of colonial India, peasant and working-class movements, and social reform movements.
	Paper-II **History of Marathas** **(1600 to 1707 A.D.)**	▪ Understand sources of Maratha history, Shivaji's rise, and relations with Adilshahi Dynasty, Mughals, and foreign powers. ▪ Gain knowledge about Sambhaji's reign, Maratha war of Independence, and Maratha administration. ▪ Explore religious policies of Shivaji and Sambhaji, social and economic institutions, and developments in education, literature, art, and architecture.

		▪ Acquire a comprehensive understanding of key events, political dynamics, and socio-economic aspects of Maratha history.
	Paper-III **Women in Indian History**	▪ Gain a comprehensive understanding of approaches and sources used in studying women's history. ▪ Explore religious status, contributions to philosophy and religion, and roles within family structures and society. ▪ Understand educational and legal rights throughout Ancient, Medieval, and colonial periods. ▪ Acquire knowledge about women's involvement in politics, household work, agriculture, industry, and professions. ▪ Learn about women's participation in reform movements and organizations during the colonial period.
	Paper-IV **History of Social Movement in Maharashtra** **(1948 to 1980 A.D.)**	▪ Understand geographical and political landscape of Maharashtra during the 19th and 20th centuries. ▪ Analyze the Sanyukta Maharashtra Movement, social and religious conditions, and background of social movements in India. ▪ Explore the Dalit Movement in Maharashtra, social reforms in post-independence India, and constitutional provisions for social rights.
MA Part-II, Sem-IV	**Paper-I,** **Post Independent of India** **(1947 to 2000 A.D.)**	▪ Gain insights into the integration of princely states into India post-independence, and grasp the significance of the Indian Constitution and its principles. ▪ Understand the reasons behind state reorganization and its impact on administrative structures, and familiarize yourself with key features of the Indian Constitution. ▪ Acquire knowledge about the inception of planned economy, historical evolution of economic policies, and their influence on India's economic development. ▪ Explore the historical context of education and social welfare policies, emphasizing the impact of the Hindu Code Bill and developments in science and space research. ▪ Comprehend India's foreign policy trajectory, including non-alignment, Jawaharlal Nehru's role in the Third World movement, and relations with major countries. ▪ Analyze the foreign policy approach during Indira Gandhi's government, events leading to independent Bangladesh, and the era of liberalization, privatization, and globalization.

	Paper - II **History of Marathas** **(1707 to 1818 A.D.)**	▪ Acquire knowledge of literary sources used for studying Maratha history, covering the Civil War, Shahu's accession, and Balaji Vishwanath's significance. ▪ Understand Maratha power expansion in North India, dynamics of relations with Mughals and foreign powers during Peshwa Bajirao I and Balaji Bajirao's reigns. ▪ Explore Peshwa Madhavrao I's reign, restoration of Maratha power in North India, challenges of Narayanrao's accession, and internal feuds. ▪ Gain insights into the Maratha Confederacy's nature, social and economic conditions, advancements in education, literature, art, and architecture. ▪ Understand the administrative system, military organization, and judicial system under Peshwa rule. ▪ Grasp various aspects of Maratha history, significant events, key rulers, and the broader impact of the Maratha Confederacy on India's historical landscape.
	Paper - III **Indian Women Since Independence**	▪ Understand the Customary Status of Women in Post-Independence and Tribal Societies in family and society. ▪ Gain knowledge of Women Organizations and their role in Women's Political Participation at various levels of governance. ▪ Acquaint with the Feminist Movement, comprehend Women's Representation and Participation in Financial activities, including Trade, Business, Banking, and Professions. ▪ Develop awareness of Women's Representation and Participation in Social and Cultural activities. ▪ Analyze Women's Pursuit of Political Power and its significance in shaping societal dynamics. ▪ Explore Women's Participation in Sports, Science, and Technology to understand their roles and contributions in these fields.
	Paper - IV **Social Reformers of Maharashtra** **(1848 to 1980 A.D.)**	▪ Identify and differentiate between prominent historical figures, such as Mahadev Govind Ranade, Gopal Ganesh Agarkar, Bal Gangadhar Tilak, Gopal Krishna Gokhale, and Dhondo Keshav Karve. ▪ Explore the lives and contributions of social reformers and activists like Pandita Ramabai, Ramabai Ranade, Mahatma Phule, Savitribai Phule, Rajarshi Shahu Maharaj, and Vitthal Ramji Shinde.

		▪ Understand the ideas and impact of notable figures, such as Dr. Babasaheb Ambedkar, Prabodhankar K. C. Thakare, Kisan Fagoji Bansod, Ganesh Akaji Gawai, and Shivram Janba Kamble. ▪ Analyze the role and significance of V. D. Sawarkar, Vinoba Bhave, Karmavir Bhaurao Patil, and Dadasaheb Gaikwad in shaping India's political and social landscape. ▪ Learn the lives and teachings of revered personalities like Sant Gadge Maharaj, Rashtrasant Tukdoji Maharaj, Dr. Bhausaheb Panjabrao Deshmukh, and Pandharinath Patil, and their impact on society. ▪ Investigate the contributions of these individuals within the broader historical, social, and cultural context of India, fostering a deeper understanding of the country's history and heritage.
Subject- Philosophy		
Class	**Course**	**Outcome (Students will .....)**
B.A. Part-I, Sem-I	**Moral Philosophy**	▪ Demonstrate a comprehensive understanding of normative ethics, metaethics, and applied ethics, effectively analyzing ethical dilemmas and moral theories. ▪ Compare ethical inquiry with scientific investigation, gaining insight into ethics as a normative and value-based discipline. ▪ Acquire knowledge of psychological factors shaping human conduct and assess how they influence moral decision-making. ▪ Gain insight into philosophical approaches to pleasure, happiness, and the good life, appreciating diverse perspectives, including Greek hedonism. ▪ Understand concepts of goodwill and categorical imperatives, evaluating moral worth based on influential philosophers like Immanuel Kant. ▪ Explore duty's intrinsic value, separate from personal interests, and appreciate moral obligations valued for their inherent significance.

B.A. Part-I, Sem-II	**Indian and Western Ethics**	▪ Understand Purushartha, including dharma, artha, kama, and moksha, and gain insights into Gadge Baba's humanistic philosophy. ▪ Acquire knowledge of ethical principles in Hindu scriptures, focusing on Varna, ashram, Ruta, and Runa. ▪ Explore Buddhist ethics (ashtang Marg, Nirvana) and Jaina ethics (mahavrat, triratna). ▪ Learn various hedonistic philosophies, including charvaka, psychological, and egoistic hedonism, and examine associated paradoxes. ▪ Analyze objects of moral judgment, theories of punishment, and combine diverse ethical philosophies for a comprehensive understanding.
B.A. Part-II, Sem-III	**History of Ancient Greek Philosophy**	▪ Demonstrate a comprehensive understanding of major philosophers and schools during Ancient Greek philosophy's cosmological and systematic periods. ▪ Analyze and compare beliefs and theories of monist philosophers (Thales, Anaximander, Anaximenes, Xenophanes). ▪ Analyze and compare beliefs and theories of philosophers from the Elaitic school (Parmenides, Zeno, Heraclitus). ▪ Analyze and compare beliefs and theories of pluralist philosophers (Empedocles, Anaxagoras, Pythagoras, Lucipas, Democritus). ▪ Critically evaluate Sophist philosopher Protagoras' ideas, focusing on "man is the measure of all things." ▪ Integrate knowledge gained to form a comprehensive understanding of Ancient Greek philosophy's development and impact on later philosophical thought.
B.A. Part-II, Sem-IV	**History of Modern Western Philosophy**	▪ Understand and explain René Descartes' method of doubt, assess and apply various approaches in philosophical inquiry. ▪ Analyze and discuss Descartes' arguments on the existence of God, understanding complexities and implications of theological discourse. ▪ Evaluate Spinoza's concept of substance, interpret foundational metaphysical ideas. ▪ Compare Locke's concept of matter with Berkeley's refutation, develop skills to discern strengths and weaknesses of philosophical standpoints.

		▪ Examine Hume's theory of causation and its implications for skepticism, analyze philosophical theories of causality. ▪ Enhance analytical thinking, construct well-reasoned arguments, and engage in thoughtful philosophical discussions.
B.A. Part-III, Sem-V	**INDIAN PHILOSOPHY PART-I**	▪ Understand the diversity and common themes within Indian philosophy. ▪ Analyze Karma, Varna, Ashram, and Yadnya concepts from Vedic philosophy. ▪ Explore Brahma, Jivatma, and Liberation in Upnishadic philosophy. ▪ Examine materialistic perspective, theory of knowledge, and refutation of God and Self in Charvaka Darshan. ▪ Evaluate Jain Darshan's classification of knowledge, Syadvada, Nayvada, Jiva/Ajiva, Bondage, and Liberation. ▪ Investigate key ideas in Boudhda Darshan, including Four Noble Truths, Theory of Causation, Momentariness, and perspectives within Madhyamika, Yogachar, Sautrantika, Vaisheshika.
B.A. Part-III, Sem-VI	**INDIAN PHILOSOPHY PART-II**	▪ Understand Nyaya Darshan and its significance in Indian philosophy, analyze and explain different types of Pramanas according to Nyaya philosophy. ▪ Demonstrate knowledge of Sapta Padartha in Vaisheshika philosophy, explain Atomism's implications. ▪ Describe Satkaryavada, Prakriti, Purusa concepts in Samkhya philosophy, examine evolution theory in Samkhya and Yoga philosophy. ▪ Analyze Nature of Knowledge, distinguish between different Sources of Knowledge in Mimansa Darshan. ▪ Examine Concept of Brahman and Atman, along with Vivartvada and critically discuss Concept of Maya's significance in understanding reality, exploring philosophical implications of Moksha.
Subject- Music		
Class	**Course**	**Outcome (Students will .....)**

B.A. Part-I, Sem-I	**Indian Vocal Music**	▪ Demonstrate proficiency in playing and practicing raag-based Alankar, showcasing improvement in sur skills. ▪ Identify and recognize various ragas and talas in listened songs, enhancing musical perception. ▪ Acquire knowledge of Music Veterans, deepening understanding of historical and cultural significance. ▪ Demonstrate understanding and application of musical charts through assigned tasks. ▪ Develop basic skills in playing Harmonium and Tanpura for singing or music accompaniment.
B.A. Part-I, Sem-II	**Indian Vocal Music**	▪ Demonstrate proficiency in Indian vocal music, performing raag-based Alankar with accurate intonation. ▪ Apply foundational knowledge in music theory and history to analyze elements of Indian music. ▪ Acquire basic skills in playing Harmonium and Tanpura for vocal music accompaniment. ▪ Demonstrate a comprehensive understanding of Music Veterans and their contributions. ▪ Recognize different ragas and talas in listened songs, enhancing musical perception.
B.A. Part-II, Sem-III	**Indian Vocal Music**	▪ Demonstrate sur proficiency through daily raag-based Alankar practice. ▪ Recognize ragas and talas in practical sessions. ▪ Acquire knowledge of musical forms and contributions of musicians through theoretical sessions. ▪ Benefit from assignments involving musical charts and patterns.
B.A. Part-II, Sem-IV	**Indian Vocal Music**	▪ Understand historical and cultural context of different Indian music types. ▪ Analyze and critically evaluate musical compositions and performances. ▪ Develop improvisation and creativity in music. ▪ Learn about instruments in Indian music and their role in creating sounds. ▪ Compose and perform original music.
B.A. Part-III, Sem-V	**Indian Vocal Music**	▪ Study delayed khayal and its alapatana in ragas Bageshree, Bhimpalasi, Kedar, Kamod. ▪ Acquire knowledge of Khayal, Dhamar, and Dugun Quadguna of various Talas. ▪ Study 32 thatas and 484 ragas for deeper knowledge of classical music. ▪ Introduction to sarangi and sarod instruments. ▪ Learn about Margi Sangit, Gandharvagan.t, Tones, Major Tones, Minor Tones, Semi Tones.

B.A. Part-III, Sem-VI	**Indian Music**	▪ Study delayed khayal and its alapatana in ragas Hamir, Chandrakaunas, Marubihag, Rageshree. ▪ Acquire Todi, Shankara, Puriya, Puriya Dhanshree, Vasant, Kalavati, Bahar, Chote Khyal. ▪ Understand Chaturanga, Dugun Chaguna, and Flute Chords Introduction. ▪ Know lyrical genres like Rabindra Sangeet, Natya Sangeet. ▪ Explore Pandit Venkatmukhi's composition of 72 thatas and mathematical theory.

AMOLAKCHAND MAHAVIDYALAYA, YAVATMAL-445001

COURSE OUTCOME (CO) [Subjects covered under Faculty of Commerce and Management]

Subject- Marathi		
Class	**Course**	**Outcome (Students will ……...)**
B.Com Part-I, Sem-I	**वैचारिक**	▪ Understand ancient Marathi language through the literature of Mhaimbhat. ▪ Recognize Mhaimbhat's significant contribution to Marathi language. ▪ Explore the connection between language, culture, and literature. ▪ Develop creativity and expressiveness through the study of Marathi literature.
	ललित	▪ Gain knowledge of fine literature, including Chhatrapati Shivaji Maharaj's thoughts. ▪ Recognize the importance of prose in ancient Marathi writings. ▪ Understand environmental concerns through literary works. ▪ Appreciate the role of Lalit Marathi in shaping cultural perspectives.
	कविता	▪ Introduce students to poetry as a literary genre. ▪ Realize the depth of human life through Saint Dnyaneshwar's poem. ▪ Familiarize students with the writings of Sant Dnyaneshwar. ▪ Acknowledge the continuous evolution of poetry in Marathi literature.

	उपयोजित मराठी	▪ Develop correspondence writing skills. ▪ Identify job opportunities in the correspondence sector. ▪ Create application writing skills through the development of general writing skills. ▪ Learn the technique of summary writing.
B.Com Part-I, Sem-II	**वैचारिक**	▪ Gain moral strength from Rajshree Shahu Maharaj's thoughts on secularism. ▪ Remember Mahatma Gandhi's modern approach. ▪ Realize the observant wisdom of Rajshri Shahu Maharaj. ▪ Develop a conceptual approach through the study of ideological Marathi.\
	ललित	▪ Explore the literature of Keshav Meshram. ▪ Understand life philosophy from fine writings. ▪ Recognize the contribution of fine writing in the post-independence era. ▪ Appreciate the role of early Marathi prose in literature.
	कविता	▪ Familiarize students with Bahinabai Chowdhury's poem. ▪ Understand the passion of human life through Vamandada Kardak's poetry ▪ Gain insights into medieval society from Sant Namdev's poetry.
	उपयोजित मराठी	▪ Continue developing correspondence writing skills. ▪ Identify employment opportunities in the correspondence sector. ▪ Strengthen application writing skills. ▪ Learn the technique of tender notification.
B.Com Part-II, Sem-III	**वैचारिक**	▪ Students will gain an understanding of R.G. Jadhav's literature, acquiring the ability to analyze and appreciate the conceptual clarity presented in the articles. ▪ Students will be able to explore the ideological writings of Dr. V. B. Kolte, recognizing their significance in shaping literary thought.
	ललित	▪ Gain insights into the enlightenment and thoughts of Rashtrasant Tukdoji Maharaj through literary exploration. ▪ Understand the impact of Lalit literature, including Steve Job's writings and Vitthal Wagh's articles interpreting Gadge Baba's thought.

	कविता	▪ Develop the ability to analyze and appreciate poetry as a literary genre, with a focus on Madhukar Keche's works. ▪ Interpret Na.Dho.Mahanor's poem to understand the poet's approach to nature and recognize the evolving style of budding poet Shashikant Hingonekar.
	उपयोजित मराठी	▪ Enhance correspondence writing skills with a practical focus on application writing, preparing students for potential job opportunities in the correspondence sector. ▪ Acquire proficiency in summary writing techniques, enabling effective communication in a concise and structured manner.
B.Com. Part-II, Sem-IV	**वैचारिक**	▪ Students will critically analyze Mahatma Gandhi's modern thought and experiment, gaining insight into his ideologies. ▪ Familiarity with Gangadhar Pantawane's ideological writings, fostering a conceptual approach to diverse perspectives.
	ललित	▪ Understanding Chakradhar Swami's prudent thinking through Lilacharitra, enhancing critical thinking skills. ▪ Recognition of the role of life in Baba Patil's writings, leading to an appreciation of fine literature in the post-independence era. ▪ Appreciation and analysis of early Marathi prose, acknowledging its significant role in Marathi literature.
	कविता	▪ Interpretation of Narayan Surve's poem 'We Ese Challo' from the collection 'Mae Vidyapeeth', fostering an understanding of serious life philosophy. ▪ Introduction to Suresh Bhat's poetry and modern poetry, enabling students to appreciate and analyze diverse poetic styles.
	उपयोजित मराठी	▪ Development of ad writing skills, preparing students for effective communication in the business and advertising domain. ▪ Mastery of the technique of tender notification, enhancing students' understanding of formal communication processes.

		▪ Language mastery, providing a strong foundation for effective communication in various professional settings. ▪ Awareness of job opportunities in the correspondence sector, equipping students with practical skills for career advancement.
B.Com Part-III, Sem-V	**वैचारिक**	▪ Understand the literary contributions of Gopal Ganesh Agarkar and analyze their ideological underpinnings. ▪ Evaluate the impact of Rajarshi Shahu Maharaj's educational philosophy on modern Maharashtra. ▪ Critically examine the ideological writings of Ashok Chausalkar and their significance. ▪ Interpret D.P. Chitre's environmental writings within the social context.
	ललित	▪ Explore the literary works of Marathi writer Avinash Dolas and analyze their artistic qualities. ▪ Analyze Dhananjay Datar's article "Learning from Experience" to gain insights into life experiences. ▪ Critically engage with the complexities of human life presented in the article "Andhayatra."
	कविता	▪ Introduce students to the genre of poetry and its various forms. ▪ Analyze Sharadchandra Muktibodh's poetry to understand its reflections on life. ▪ Interpret Nagraj Manjule's poem "Majhi Kavita" to explore rebellious thoughts in poetry. ▪ Enhance students' talent in interpreting and appreciating life and nature poem.
	उपयोजित मराठी	▪ Develop tender writing skills and apply them to real-world scenarios. ▪ Understand the professional applications of tender writing in various contexts. ▪ Acquire journal writing skills and appreciate the technique of effective journal writing for personal and professional growth.
B.Com Part-III, Sem-VI	**वैचारिक**	▪ Demonstrate familiarity with the thought and literature of Savitribai Phule and Tarabai Shinde. ▪ Analyze the ideological writings of Sadanand More. ▪ Critical Analysis of Thinkers:

		▪ Interpret B. L. Bhole's perspective on Dr. Babasaheb Ambedkar.
	ललित	▪ Examine the character portrayal in Anna Bhau Sathe's story. ▪ Understand political machinations through Sharad Pawar's article "Ajatshatru Atalji." ▪ Reflect on the complexities of human life through the article "Thakan."
	कविता	▪ Identify poetry as a distinct literary form. ▪ Analyze Kusumagraja's poetry to grasp the sense of life. ▪ Interpret Sukhdev Dhanke's poem "Bai" to understand the sensitivity of a woman's mind. ▪ Enhance talent through the understanding of life poems.
	उपयोजित मराठी	▪ Develop public statement writing skills. ▪ Apply public statement writing in a professional context. ▪ Acquire report writing skills. ▪ Demonstrate knowledge of report writing techniques
Subject- English		
Class	**Course**	**Outcome (Students will .....)**
B.Com Part-I, Sem-I	**Compulsory English**	▪ Master effective business correspondence skills. ▪ Familiarize yourself with corporate work culture. ▪ Gain motivation from the lives of successful personalities. ▪ Enhance English language fluency in both speaking and writing. ▪ Develop efficient reading and writing abilities.
B.Com Part-I, Sem-II	**Compulsory English**	▪ Hone drafting skills through grammar and writing. ▪ Attain proficiency in language for professional competence. ▪ Explore National Stock Exchange, Share Market, and SIP. ▪ Understand market volatility and the corporate environment. ▪ Broaden perspectives on Trade and Commerce.
B.Com Part-II, Sem-III	**Compulsory English**	▪ Interpret texts from diverse perspectives. ▪ Cultivate interest in quality audio-visual media. ▪ Attain proficiency in listening, speaking, reading, and writing.

		▪ Develop strong oral and written communication skills. ▪ Acquire skills in skimming, scanning, language structure, note-making, and summary writing. ▪ Enhance abilities in guessing meanings and drawing inferences.
B.Com Part-II, Sem-IV	**Compulsory English**	▪ Foster critical, creative, and positive thinking. ▪ Build commercial relationship and problem-solving skills. ▪ Communicate effectively in business correspondence. ▪ Acquaint with corporate work culture. ▪ Gain insights into learning and achieving fluency in English. ▪ Enhance reading and writing efficiency.
B.Com Part-III, Sem-V	**Compulsory English**	▪ Comprehend grammatical skills, including articles, parts of speech, and word formation. ▪ Develop communication and writing skills in letter writing, report writing, and resume building. ▪ Hone drafting skills through grammar and writing. ▪ Attain proficiency in language for professional skills. ▪ Foster a perception for brevity in expression.
B.Com Part-III, Sem-VI	**Compulsory English**	▪ Understand and interpret prose, poetry, and the meaning of literature and life. ▪ Develop communication and writing skills. ▪ Hone drafting skills through grammar and writing. ▪ Attain proficiency in language for professional skills. ▪ Establish the connection between literature and real life.
Subject- Hindi		
Class	**Course**	**Outcome (Students will .....)**
B.Com Part-I, Sem-I	**GUNJAN**	▪ Grasp prose and poetry concepts effectively. ▪ Apply essential Hindi language skills confidently in daily life. ▪ Develop advanced communication skills and express thoughts proficiently. ▪ Appreciate Hindi poetry through the study of renowned poets.

		▪ Utilize colloquial language and grammar for formal and informal communication. ▪ Enhance Hindi writing abilities in composition, letter writing, and dictation.
B.Com Part-I, Sem-II	**GUNJAN**	▪ Understand and interpret Hindi prose and poetry. ▪ Apply all language skills in composing poetry and prose. ▪ Express ideas clearly and confidently in Hindi. ▪ Collaborate effectively in linguistic communication. ▪ Acquaint with Devnagari Script and Technical terminology.
B.Com Part-II, Sem-III	**Gyanyada**	▪ Use Hindi as an official and second language. ▪ Analyze stories and poems to appreciate Hindi literature. ▪ Master the art of composing Hindi essays and enhance writing abilities. ▪ Demonstrate proficiency in formal and business letter writing. ▪ Acquire knowledge of Hindi grammar concepts and enrich language usage.
B.Com Part-II, Sem-IV	**Gyanyada**	▪ Cultivate a human approach in language learning with critical thinking. ▪ Master creative writing elements for effective expression in Hindi. ▪ Understand the story "Abhi Abhi To Aaya Vasant" and its themes. ▪ Recognize the significance of learning Hindi alongside other languages. ▪ Acquire proficiency in word transformation and administrative vocabulary.
B.Com Part-III, Sem-V	**PRABHAS**	▪ Use Hindi as an official and second language for employability. ▪ Understand stories, poems, and write Hindi essays. ▪ Write formal and business letters in Hindi. ▪ Comprehend and create advertisements for various products.
B.Com Part-III, Sem-VI	**PRABHAS**	▪ Adopt a human approach and think critically in language learning. ▪ Understand grammar and apply creative writing elements. ▪ Comprehend specific stories and learn about Hindi and non-Hindi regions. ▪ Understand and write poetry, translations, letters, passages, and headings.
Class	**Course**	**Outcome (Students will .....)**

B.Com Part-I, Sem-I	**Advanced Accountancy**	▪ Grasp fundamental accounting principles and concepts applicable to businesses, showcasing proficiency in managing diverse accounting transactions. ▪ Acquire the skills to maintain various Subsidiary Books, including Purchase and Sales Books, and accurately record transactions. ▪ Prepare final accounts for individuals, encompassing the Trading Account, Profit and Loss Account, and Balance Sheet. ▪ Apply depreciation methods like Straight-line and Reducing Balance to account for asset value decrease over time. ▪ Identify and rectify accounting errors, ensuring the precision of financial records. ▪ Differentiate between Bank Pass Book and Cash Book, and master the preparation of Bank Reconciliation Statements.
	Principles of Business Organization	▪ Understand commerce and industry's meaning, scope, evolution, and impact, emphasizing the emergence of multinational corporations in India. ▪ Analyze various business sectors, organizational forms, and explore modern commerce concepts like online trading and cashless transactions. ▪ Investigate merger strategies, franchising, and copyright importance in trade and commerce. ▪ Generate innovative business ideas, explore creativity in business innovation, and develop business plans. ▪ Examine transport, insurance, and communication's role in commerce, enhancing knowledge about import and export trade services. ▪ Develop effective trade project execution skills and articulate findings coherently.
	Principles of Economics	▪ Apply economic knowledge for employability, using microeconomic concepts to analyze real-life situations. ▪ Compare Traditional and Modern Definitions of economics and apply both Micro & Macro concepts. ▪ Conduct supply and demand analysis for market impact assessment. ▪ Apply Cost & Revenue principles for informed business decisions.

		▪ Analyze economic problems, evaluate alternatives, and recommend strategies for competitive markets.
	Computer Fundamentals & Operating System - I	▪ Explain computer development, identify key components, and differentiate various types of computer memory. ▪ Understand input devices' role in data input/output for business applications. ▪ Develop skills in creating and formatting text documents, applying formatting styles, and leveraging technology for business efficiency. ▪ Apply computer knowledge in real-world commerce scenarios.
B.Com Part-I, Sem-II	**Financial Accounting**	▪ Prepare final accounts for non-trading institutions, co-operative societies, and agriculture business farms. ▪ Record and analyze hire purchase transactions, understanding insolvency processes and preparing related accounts. ▪ Explore provisions of the Insolvency Act and demonstrate proficiency in handling financial situations. ▪ Understand the principles of Business Management, planning, organization, direction, motivation, and control.
	Principles of Business Oraganisation	▪ Gain a comprehensive understanding of commerce and industries, including the evolution and impact, with a focus on the emergence of multinational corporations in India and the significance of Indian businesses in the new millennium. ▪ Analyze various business sectors, ranging from small-scale establishments to online trading, marketing, and cashless transactions. ▪ Explore strategies such as mergers, acquisitions, franchising, and dealership, underscoring the importance of copyrights in the realm of trade. ▪ Cultivate creativity in business innovation, mastering the generation of inventive ideas and understanding the process of developing a business plan for informed decision-making. ▪ Examine the roles of transport, insurance, communication, and other essential services in import and export trade projects within the realm of commerce. ▪ Develop effective trade project management skills, confidently presenting findings and discussing various commerce-related topics in a structured manner.

	Computer Fundamentals & Operating System-II	▪ Demonstrate basic understanding of computer fundamentals, identify Windows versions, and manage files effectively. ▪ Comprehend modern communication methods, network topologies, and create and manage email accounts. ▪ Develop skills in using Microsoft PowerPoint for effective presentations.
	Business Economics	▪ Examine distinctions between Business Economics and Managerial Economics. ▪ Analyze monopolistic pricing, competition types, and demand-supply dynamics. ▪ Apply economic theories of interest, profit, and resource allocation. ▪ Evaluate and recommend strategies for businesses in competitive markets.
B.Com Part-II, Sem-III	**Business Mathematics**	▪ Apply Integers, H.C.F., and L.C.M. concepts in business problem-solving. ▪ Utilize Percentage, Discount, Commission, and Brokerage principles in business scenarios. ▪ Apply Average, Profit and Loss concepts for business data analysis. ▪ Accurately calculate Simple Interest, Compound Interest, and apply them in financial transactions. ▪ Apply mathematical skills to make informed decisions and assess business performance.
	Information Technology & Business Data Processing-I	▪ Explain data processing significance, identify key components, and define database fundamentals. ▪ Introduce spreadsheet packages, apply formulas and functions, and leverage technology in real-world commerce scenarios. ▪ Analyze data insights for business decisions.
	Monetary System	▪ Gain historical knowledge of money, understand demand and supply factors, and explore inflation and deflation concepts. ▪ Analyze the money market, understand the capital market and SEBI's role.
	Company Account	▪ Learn methods of issuing shares and debentures, reconstruct capital structure, and understand profit prior to incorporation. ▪ Develop procedures for amalgamating and absorbing companies, applying knowledge to real-world scenarios.

	Auditing	▪ Understand auditing principles and types, execute audit programs effectively, and prepare comprehensive audit reports. ▪ Specialized knowledge in auditing practices for banks, insurance companies, and educational institutions.
B.Com Part-II, Sem-IV	**Business Statistics**	▪ Demonstrate understanding of basic statistical concepts and apply them in business. ▪ Calculate and interpret index numbers, frequency distributions, and measures of dispersion. ▪ Analyze correlation coefficients and apply statistical analysis techniques to business scenarios.
	Information Technology & Business Data Processing-II	▪ Understand information concepts, operate Tally 9.0, and analyze business data using database management tools. ▪ Comprehend Indian tax system, including TDS, TCS, and Goods and Services Tax (GST).
	Corporate Accounting	▪ Understand corporate accounting procedures, analyze financial statements for banking and insurance companies. ▪ Apply knowledge in valuing shares and Goodwill in accounting.
	Indian Financial System	▪ Understand financial system fundamentals, identify financial institutions, and comprehend commercial banks' role. ▪ Explore stock exchanges, SENSEX, NIFTY, and gain comprehensive knowledge of financial systems.
	Income Tax	▪ Understand basic Income Tax concepts, compute Income from Salary and House Property, and file income tax returns. ▪ Analyze real-life scenarios and apply Income Tax principles for tax planning.
B.Com. Part-III, Sem-V	**Business Environment**	▪ Understand internal and external components of business environment. ▪ Learn about Indian agricultural, industrial, and service environments. ▪ Explore India's trade environment and the impact of foreign trade.
	Cost Accounting	▪ Learn Cost Accounting concepts and tools, prepare cost sheets, and analyze financial statements. ▪ Develop problem-solving techniques and present coherent legal arguments.

		▪ Learn provisions related to Negotiable Instrument Act, 1881, and understand GST.
	Business Regulatory Frame work	▪ Explore foundational concepts in business regulations, covering commercial contract laws, the intricacies of competency to contract, considerations, and contractual objectives. ▪ Delve into the nuances of sale contracts, distinguishing between sale and agreement to sell, exploring conditions and warranties, understanding the rights of unpaid sellers, and examining remedies for contract breaches. ▪ Develop problem-solving skills and the ability to articulate clear legal arguments. ▪ Examine the provisions of the Negotiable Instrument Act, 1881, including the 2015 Amendment Act, focusing on Bills of Exchange, Promissory Notes, and Cheques, along with legal processes for dishonored cheques and associated penalties. ▪ Gain insight into the legal framework of GST and its application in India.
	Internet and WWW-I	▪ Understand networking concepts, computer systems, and basics of HTML. ▪ Operate various social networking sites, Google Drive, and Google Forms.
	E- Commerce - I	▪ Learn E-commerce basics, business models, and Internet marketing strategies. ▪ Apply EDI in business environments and understand E-governance concepts.
B.Com. Part-III, Sem-VI	**Management Accounting**	▪ Understand Management Accounting concepts, analyze financial statements, and prepare budgets. ▪ Apply Break Even Analysis and Ratio Analysis methods.
	Internet and WWW-II	▪ Learn browser functions, web dictionaries, and use social networking sites. ▪ Operate Google Drive, Google Forms, and MS Front Express for web page creation.
	Economics of Development	▪ Understand economic development and growth concepts, Economic Growth Models, and indicators. ▪ Explore balanced and unbalanced growth, Human Resource Development, and financial capital.
	COMPANY LAW	▪ Learn laws governing companies, roles of promoters, classification of companies, and share capital. ▪ Understand security markets, prospectus, and legal provisions related to directors.

	E- Commerce - II	▪ Understand Internet usage in E-commerce, Internet Marketing, and EDI. ▪ Learn about E-governance, including government to business, business to government, and citizen to government relationships.
M.Com. Part-I, Sem.-I	**Managerial Economics**	▪ Develop a thorough comprehension of Managerial Economics, its principles, and practical applications in diverse business contexts. ▪ Cultivate the ability to forecast demand amidst dynamic market conditions, utilizing insights to formulate effective business plans. ▪ Analyze market supply and demand scenarios, identifying influential factors and their impact on business operations. ▪ Understand price determination across various market forms and apply appropriate pricing strategies in real-world business situations. ▪ Grasp concepts of inflation and deflation, enabling assessment of economic challenges and opportunities. ▪ Apply managerial economics principles to solve real-world business problems, make informed decisions, and optimize resource allocation for improved organizational performance
	Services Marketing and Customer Relationship Managements	▪ Comprehend service marketing fundamentals, including nature, types, and environmental influences. ▪ Understand the service marketing process, covering market segmentation, customer needs identification, and pricing strategies. ▪ Analyze various service marketing sectors (e.g., financial services, healthcare) and their applications. ▪ Gain insights into customer relationship management, understanding the concept, assessing customer needs, and building strong relationships. ▪ Acquire knowledge about consumer decision-making processes and their impact on service marketing strategies. ▪ Develop skills to apply rational exchange principles, enhancing customer relationships and service marketing efforts.

	Advanced Financial and Cost Accounting	▪ Apply accounting standards relevant to financial and cost accounting, including journal entries and valuation of Goodwill. ▪ Analyze and interpret financial statements, making informed business decisions based on organizational financial health. ▪ Understand financial and cost accounting principles, analyze different cost components, and identify cost-saving opportunities. ▪ Learn methods for ascertaining and classifying costs in various scenarios, including Machine-Hour-Rate and Operating costing. ▪ Grasp the concept of cost audit, recognizing its importance in ensuring cost efficiency and compliance. ▪ Apply advanced financial and cost accounting knowledge in practical business situations, preparing for challenges in the professional world.
	Banking and Insurance Services	▪ Comprehend commercial banking structure, principles, and functions in India's financial system. ▪ Describe the significance of the Reserve Bank of India and its role in regulating monetary policies and supervising the banking sector. ▪ Analyze the State Bank of India's functions, methods, and importance in the Indian banking industry. ▪ Understand insurance companies' formation, scope, and significance in risk management across sectors. ▪ Differentiate prevalent types of insurance in India, covering life, health, property, and casualty. ▪ Explore operations and functions of Indian insurance companies and their role in shaping the insurance sector.
M.Com. Part-I, Sem.-II	**Accounting for Managerial Decisions**	▪ Apply basic accounting fundamentals under the Indian Companies Act 2013 to prepare accurate vertical financial statements. ▪ Develop proficiency in financial analysis, prepare Fund Flow and Cash Flow Statements, estimate Working Capital, and manage Receivables effectively.

		▪ Understand management accounting techniques for informed financial decisions. ▪ Analyze and interpret financial ratios and core concepts in business finance. ▪ Demonstrate the ability to prepare budgets, fostering better financial planning and control. ▪ Enhance competence in using accounting information for managerial decision-making.
	Strategic Management	▪ Understand strategic management processes and effective decision-making in organizations. ▪ Demonstrate business environmental scanning techniques and identify strategic opportunities and threats. ▪ Value strategy formulation and implementation, aligning plans with organizational goals. ▪ Analyze contributions of corporate, business, and functional strategies to overall success. ▪ Evaluate strategy effectiveness and address execution challenges. ▪ Enhance critical thinking and decision-making skills for long-term organizational success.
	Management Concept and Organizational Behaviour	▪ Analyze leaders' role in decision-making and assess the impact of leadership styles. ▪ Execute managerial functions effectively and handle diverse responsibilities. ▪ Understand management principles and continuous improvement concepts. ▪ Manage work groups, foster cooperation, and create an effective workplace environment. ▪ Apply management insights practically to enhance organizational effectiveness and efficiency. ▪ Contribute to the organization's overall effectiveness, identify areas for improvement, and propose strategies.
	Computer Applications in Business	▪ Understand business concepts and theories, applying them in theoretical and practical contexts. ▪ Utilize OS and MS Office applications for preparing business documents and efficient mathematical computations. ▪ Acquire skills to determine and implement appropriate procedures for preparing financial statements. ▪ Analyze the potential and scope of modern technology in business practices. ▪ Develop critical thinking and problem-solving abilities in the context of computer applications and technology utilization in business environments.

M.Com. Part-II Sem.-III	**Research Methodology**	▪ Understand fundamental concepts and principles of research, including purposes, objectives, and methodologies. ▪ Develop skills in data collection and defining appropriate parameters for research problems. ▪ Acquire skills in data analysis, interpretation, and effective application of theoretical concepts. ▪ Write well-structured project reports and theses supported by sound research methodologies. ▪ Guide and assist others in research endeavors, offering valuable insights in research methodology.
	Statistical Analysis	▪ Understand the concepts of probability, sampling, and correlation, applying them to real-world scenarios. ▪ Identify the applicability of parametric and non-parametric tests in different statistical situations. ▪ Utilize formulae effectively to solve statistical problems and interpret results. ▪ Develop the ability to make informed decisions in uncertain business situations using statistical analysis. ▪ Enhance logical reasoning skills to analyze and interpret complex data sets within the commerce domain.
	Corporate Tax Planning and Management	▪ Distinguish between Tax Evasion, Tax Planning, and Tax Avoidance, understanding their legal and ethical implications. ▪ Understand deductions, rebates, and reliefs available under the Income Tax Act. ▪ Develop the skill to make informed managerial decisions considering the implications of Income Tax Rules. ▪ Acquire knowledge about the concept and implications of DTAAs to prevent double taxation. ▪ Initiate and manage an e-commerce website, recognizing tax implications and compliance requirements.
	E-Commerce and Legal Security	▪ Operate an e-commerce website effectively, manage product listings, and provide a seamless shopping experience.

		▪ Evaluate e-commerce websites, business models, and factors contributing to online business success. ▪ Gain proficiency in building dynamic websites for optimal customer engagement. ▪ Acquire knowledge about cyber laws, legal frameworks, data protection, and intellectual property rights. ▪ Understand the impact of the cyber world on e-commerce, exploring opportunities and challenges.
M.Com. Part-II Sem.-IV	**Entrepreneurship & Skill Development**	▪ Understand the originating theories of entrepreneurship and gain a solid foundation in entrepreneurial principles. ▪ Identify and evaluate business opportunities, equipping with skills to assess potential ventures. ▪ Apply tools and techniques for upgrading entrepreneurship, managing and expanding business endeavors. ▪ Acquire communication and networking skills for effective interaction within organizations and with external stakeholders. ▪ Embrace entrepreneurial opportunities and contribute to the growth of the business world.
	International Financing	▪ Understand the foreign exchange system in international trade and business. ▪ Analyze the role of central banks in international financial management. ▪ Gain knowledge about the international monetary system and global financial markets. ▪ Explore contributions and interventions of the IMF and World Bank in stabilizing global economies. ▪ Evaluate implications of effective international financing for businesses and nations.
	Sales and Distribution Management	▪ Demonstrate a comprehensive understanding of sales and distribution processes within organizations. ▪ Evaluate and apply concepts, approaches, and practical aspects of key decision-making variables in sales and distribution. ▪ Analyze market analysis methods and selling concepts for informed business decisions. ▪ Evaluate sales performance and identify trends in sales and distribution management.

		▪ Establish connections between distribution and other essential marketing variables. ▪ Develop effective strategies for optimizing sales and distribution processes.
	Co- Operative Management	▪ Understand the principles and characteristics of cooperation in the business world. ▪ Analyze the functioning of different types of cooperative societies and financial institutions. ▪ Evaluate government policies and regulations governing the cooperative sector. ▪ Explore the historical development of cooperative legislation in India and its impact. ▪ Identify challenges and opportunities in cooperative management, applying suitable strategies for enhancement.