Bharatiya Mahavidyalaya, Amravati

Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs)

Bachelor of Science (B.Sc.)

Programme Outcomes

PO1: To introduce the fundamentals of science education
PO2: To enrich students' knowledge in all basic sciences
PO3: To develop interdisciplinary approach amongst students
PO4: To inculcate sense of scientific responsibilities and social & environment awareness
PO5: To help students build-up a progressive and successful career in academics and industry
PO6: To motivate the students to contribute in the development of Nation

Botany

Programme Specific Outcomes

PSO1: Provide knowledge of the medicinal plants of Melghat region to the students and promote them to use them as earning source
PSO2: Motivate the Botany students for exploration of Melghat flora
PSO3: Preserve the rare medicinal plants of the Melghat region
PSO4: Create recognized laboratory for the students of Botany and provide guidance to the research students
PSO5: Create awareness about plant propagation
PSO6: Develop open natural laboratory for the students of Botany

Course Outcomes

Course: Diversity and Applications of Microbes and Cryptogams
CO1: Study of cryptogamous plants and their diversity in aquatic ecosystem
CO2: To study the role of fungi in food industry
CO3: Diversity of fungi in forest ecosystem
CO4: Investigation on diversity of bryophytes and pteridophytes
CO5: Industrial value of aquatic algae, fungi.

Course: Gymnosperm, Morphology of Angiosperms and Utilization of plants
CO1: To bring investigation on paleobotanical study in India
CO2: Taxonomical and economical study of gymnosperms
CO3: Systematic study of plants and their classifications
CO4: Phytitaxonomical study of angiosperm

CO5: Economical importance of spices, timber and Bamboo

Course: Angiosperm systematic, anatomy and embryology

CO1: Exsitu and insitu conservation of flora in forest ecosystem
CO2: Role of anatomy in classification of plants and their phylogeny study
CO3: Role of embryolofy in classification of plants
CO4: Plants systematic and their classifications

Course: Cell biology, Genetics and Biochemistry

CO1: Role of cell biology and its fumction
CO2: Role of gemetics in plant classification
CO3: To study the biochemistry of plants
CO4: Role of enzymes in Industries

Course: Plant physiology and Ecology

CO1: To study the physiological characters of wild and cultivated plants
CO2: To study the role of environmental factors on photosynthesis
CO3: Ecological and environmental study of flora in forest ecosystem
CO4: Investigation the effects of environmental factors in trends in succession
CO5: Food chain and food web in ecosystem

Course: Molecular biology and biotechnology

CO1: Role of DNA and transposable elements in plants
CO2: Concept of gene
CO3: Tools and techniques of recombinant DNA technology
CO4: Cloing vectors
CO5: Gene transfer techniques
CO6: Tissue culture techniques
CO7: Fermentation technology- Bakery and alcohol production
CO8: Health care edible vaccines
CO9: Plant kingdom in detail
CO10: Diversity of Plants with respect to habitat, nutrition and ecological status.
CO11: General knowledge about Viruses
CO12: Understood what is TMV and HIV CO13: Basic knowledge of Bacteria
CO14: Role of microbes in Agriculture, Medicine, and industry.

Chemistry

Programme Specific Outcomes

PSO1: Identify and become familiar with the scope, methodology and application of modern chemistry and learn to appreciate its ability to explain various aspects.
PSO2: Understand theoretical and practical concepts of instruments that are commonly used in most chemistry fields.
PSO3: Design and carry out scientific experiments and record the results of such experiments.

PSO4: Understand safety of chemicals, transfer and measurement of chemical, preparation of solutions, and using physical properties to identify compounds and chemical reactions.
PSO5: Explain how chemistry is useful for social, economic and environmental problems and issues facing our society in energy, medicine and health.

Course Outcomes

Course: Paper I

CO1: Describe periodic properties of elements, understand formation of ionic bonding & factors affecting ionic bond formation.
CO2: Understand electronic configuration, ionization energy, oxidation state of S and P block elements.
CO3: Identity electronic displacement taking place in the molecule by some effects, generation of reactive intermediates, their stability and reactions.
CO4: Interpret aromaticity and based on that distinguish aromatic, anti-aromatic and non- aromatic compounds, able to know the structure of benzene and its electrophilic substitution reaction.
CO5: Understand limitation of first law of thermodynamics and needs of second law of thermodynamics and know the concept of entropy.
CO6: Know the postulates of kinetic theory of gases, understand phase rule and application of phase rule on water system and sulphur system.

Course: Paper-II

CO1: Define polarization and its application, directional nature of covalent bond, concepts of hybridization and know the theory of acids and bases.
CO2: Understand requirement of good solvent and classification of solvents.
CO3: Describe synthesis and chemical reactions of alkyl halides, aryl halides and alcohol.
CO4: Understand methods of formation of phenols, ether and epoxide and their reactions catalyzed by acid and alkali.
CO5: Identify polar and non polar molecules and know paramagnetic and diamagnetic substances.
CO6: Describe rate of reaction in terms of change in concentration and how the rate of chemical reaction changes as a function of time.

Course: Paper III

CO1: Understand covalent bonding, metallic bonding and describe structure of molecule with regular & distorted geometry by using VSEPR theory and know about gravimetric and volumetric analysis.
CO2: Describe various reactions, acidity and reactivity involved in aldehydes ketone and carboxylic acid.
CO3: Identify importance of stereochemistry in organic chemistry & apply the knowledge gained to a variety of chemical problems.
CO4: Define work function, Gibbs free energy and application of phase equillibria in miscible and immiscible liquids.
CO5: Understand determination of surface tension, viscosity and effects of temperature on surface tension and viscosity.

Course: Paper-IV

CO1: Understand chemistry of transition elements with reference to electronic configuration, atomic and ionic size, ionization energy and know about extraction of elements.

CO2: Define inner transition elements and know their properties and general principle of metallurgy.

CO3: Describe reactions of poly nuclear hydrocarbon, synthesis of higher acids with the help of reactive methylene compounds, constitution of glucose, conversion of glucose to fructose etc.

CO4: Know synthesis of aromatic nitro compounds, amino compounds and diazonium salts and their reactions.

CO5: Understand colligative properties of dilute solution and know to determination of molecular weight of solute.

CO6: Identity symmetry in crystal and elements of symmetry in crystals, also know the laws of symmetry.

Course: Paper-V

CO1: Understand key features of co-ordination compounds including variety of structures and know the concepts of oxidation number, coordination number, ligands, chelates and stability of complex.

CO2: Knowledge of crystal field theory to understand splitting in complexes and factors affecting in crystal field splitting.

CO3: Understand heterocyclic compounds especially about their synthesis, reactivity and application of heterocyclic compound in advanced chemical synthesis.

CO4: Classify dyes on the basis of structure and mode of application, preparation and uses of dyes, drugs and pesticides.

CO5: Understand photochemical and thermal reactions by interaction of radiation with matter.

CO6: Identify the electric and magnetic properties of radiation and know the spectroscopic techniques for understanding the atomic structure and structure of molecule.

Course: Paper-VI

CO1: Understand thermodynamic and kinetic stability of complexes and geometry of complexes. Know about spectrophotometric technique for determination of concentration of metal ion. Define and classify chromatographic techniques.

CO2: Know basics of organometallic chemistry, inorganic polymers and bio-inorganic chemistry.

CO3: Identify structure of compound by use of electronic spectroscopy and infrared spectroscopy and know how to interpret spectra.

CO4: Understand the phenomena of Nuclear Magnetic Resonance spectroscopy and mass spectrometry.

CO5: Understand limitation of classical mechanics at molecular length scales and difference between classical and quantum mechanics.

CO6: Identify inter conversions of chemical energy and electrical energy by knowing electrochemistry and application of radio isotopes in industry, agriculture, medicine & biosciences.

Geology

Programme Specific Outcomes

PSO1: Study Geology with an aspect to develop students' interests for Geology-Science of Earth as a subject of study
PSO2: Acquire the knowledge of various kinds of rocks, minerals and fossils in the lab
PSO3: Develop students' sense of inquisitiveness by allowing them to guess about the past geological events
PSO4: Enhance students' perception about geographical and geological aspects of India
PSO5: Provide great opportunities of career and employment
PSO6: Field Visits to introduce and develop field based Geological skills and knowledge
PSO7: Protection and Preservation of Geological heritage

Course Outcomes

Course: General Geology, Physical Geology, Mineralogy, Crystallography & Field Geology

Upon successful completion of the course, students will be able to
CO1: Understand the basicide about geology, branches, scope and origin of the earth system.
CO2: Explain the age determination method sand constitution of earth.
CO3: Understand the rock weathering process.
CO4: Describe and interpret the developmen to fland form sand geologic structures made by the various agents like rive, wind, glacial etc.
CO5: Understand and explain the volcanism and earth quakes theory.
CO6: Understand the concepts of how minerals formand criteria to identify common minerals
CO7: Learn to describe the physical and optical properties of minerals.
CO8: Explain the crystal system
CO9: Understand and use of basic tools for the fieldwork.

Course: Igneous, Sedimentary and Metamorphic Petrology

Upon successful completion of the course, students will be able to
CO1: Explain and describe the formation, classification, structure and structure of igneous rocks.
CO2: Explain and describe the formation, classification structure and structure of sedimentary rocks.
CO3: Explain and describe the formation, classification, structure and structure of metamorphic rocks.
CO4: Classify and identify the Igneous, sedimentary and metamorphic rocks
CO5: Describe the depositional environment of sedimentary rocks.
CO6: Understand the chemical composition of Igneous, sedimentary and metamorphic.

Course: Stratigraphy and paleontology

Upon successful completion of the course, students will be able to
CO1: Understand and describe the general idea about Principles of Stratigraphy, stratigraphic classification
CO2: Describe the physiographic division of India and geological time scale

CO3: Describe and explain the different lithostratigraphic units of India.
CO4: Classification, geographic distribution, lithological characteristics, fossil contents and economic importance of various statigraphic groups.
CO5: Introduction of Palaeontology, Types of fossils Micropalaeontology
CO6: Classify and identify the Phylum Mollusca, Brachiopoda, Echinodermata, Foraminifera, Anthozoa and Trilobita.

Course: Structural Geology, Tectonics and Geomorphology

Upon successful completion of the course, students will be able to
CO1: Describe the outcrops of rocks, their attitude by basic field instruments
CO2: Describe and identify the various geological structures like unconformities, erosional structurs
CO3: Understand and explain the concept of Stress-Strain and deformation, Describe the various structures like folds, joints.
CO4: Describeand explain the concept of Isostacy, Geosyncline Palaeomagnetism
CO5: Describe and explain the Scope of Geomorphology, Concepts of geomorphology, Fluvial Cycle, Drainage patterns and morphometric analysis
CO6: Understand the process of formation of Soil, Different types of landfroms. Idea of applied geomorphology etc.

Course: Structural geology, Platetectonic and Hydrogeology

Upon successful completion of the course, students will be able to
CO1: Understand the basic geological field in struments.
CO2: Describe and identify the various geological structures formed during the depositional and non-depositional activities.
CO3: Understand and explain interior of the earth.
CO4: Explain the concepts of Isostasy.
CO5: Describe evidences of continental driftingand types of platetectonic
CO6: Explain the components, occurrence and distribution of Ground water
CO7: Explain and identify Ground water Provinces of India

Course: Structural geology, Remote sensing and Geophysical exploration

Upon successful completion of the course, students will be able to
CO1: Describe the various structural features.
CO2: Understand and identify the types of folds.
CO3: Understand and identify the phtogrametry elements
CO4: Understand the prospecting and exploration-criteria for searching of ore.
CO5: Describe the various exploration methods.

Mathematics

Programme Specific Outcomes

PSO1: Students will demonstrate an understanding of the common body of knowledge in maths and demonstrate the ability to apply analytical and theoretical skill to model and solve the mathematical problems
PSO2: Understand the nature of mathematical proofs and be able to write clear and concise proofs.
PSO3: Be able to communicate effectively in oral and written form
PSO4: Be able to write simple computer programs to perform the mathematical competition.
PSO5: Learn about application of mathematics in other field and gain experiences in mathematical modelling
PSO6: Develop the ability to read, understand and use basic definition in linear and abstract algebra and real analysis and be able to prove simple consequence of this definition
PSO7: Student learns to communicate idea effectively and to digest new information and concepts independently.
PSO8: Students are encouraged to develop intellectual and become involved with professional organization
PSO9: Communicate mathematical ideas both orally and in writing
PSO 10: Investigate and solve unfamiliar maths problems
PSO11: Demonstrate the proficiency in writing proofs

Course Outcomes

Course: Algebra & Trigonometry

By the completion of this course the student will be able to
CO1: Understand the concepts of Hyperbolic and inverse hyperbolic function , De Moivre's theorem, and its application
CO2: Understand the concept of summation series, Gregory series, Euler's series, Machin's series, Rutherford's series,
CO3: Learn about Elements of quaternion: complex conjugate of a quaternion, norm, inverse, quaternion as a rotation operator, interpretation, a special quaternion product, operator algorithm, quaternion to matrices.
CO4: Deeply know about polynomial equation, its roots nature, solve some quadratic, biquadratic polynomial, Cardon method to solve cubic equations
CO5: Introduction and explanation of Matrices, Rank, Eigen values and Eigen vector, Caly- Hamilton Theorem etc.

Course: Differential and Integral Calculus

By the completion of this course the student will be able to know
CO1: Definition of the limit of a function, basic properties of limits, continuous functions and classification of discontinuities.
CO2: Differentiability, successive differentiation, Leibnitz theorem, indeterminate forms and L'Hospital rule. Rolle's theorem, Lagrange's mean value theorem, Cauchy's mean value theorem, Maclaurin and Taylor series expansions.

CO3: Partial derivatives and differentiation of real valued function of two variables, homogeneous functions, Euler's theorem on homogeneous functions.
CO4: Integration of some standard form, reduction formulae Walli's formula, quadrature, rectification,etc.

Course: Differential Equations: Ordinary and Partial

By the completion of this course the student will be able to know
CO1: Degree and order of a ordinary differential equation, linear differential equations and differential equations reducible to the linear form. Exact differential equations. Differential equations of first order and higher degree, Orthogonal trajectories.
CO2: Second order linear differential equations with constant coefficients, homogeneous Linear ordinary differential equations, reducible to homogeneous differential Equations.
CO3: Reduction of order, transformation of the equation by changing the dependent variable and independent variable, normal form, method of variation of parameters. Ordinary simultaneous differential equations.
CO4: Formation of partial differential equations, partial differential equations of the first order, total differential equation . Lagrange's method, some special types of equations which can be solved easily by methods other than the general method.
CO5:Compatible differential equations.Charpit's general method of solution, partial differential equations of second and higher orders. Homogeneous and non-homogeneous equations with constant coefficients.

Course: Vector Analysis and Solid Geometry

By the completion of this course the student will be able to know
CO1: Scalar and vector product of three vectors, product of four vectors, vector differentiation and vector integration.
CO2: Space curve t, n,b vectors, fundamental planes, curvature, torsion, Frenet Serret formulae.
CO3: Gradient, divergence and Curl, directional derivative, line integral(existence and evaluation),work done, Greens theorem.
CO4: Sphere: Different forms of sphere, section of a sphere by a plane, sphere through a given circle, intersection of sphere and a line, orthogonal sphere and condition of orthogonality.
CO5: Cone : The equation of a cone with a guiding curve, cone with vertex and origin, right circular cone. Cylinder: equation of right circular cylinder

Course: Advanced Calculus

By the completion of this course the student will be able to know
CO1: Sequence, positivity theorem, sandwich theorem, monotonic and bounded sequence, Cauchy sequence.
CO2: Series: Series of nonnegative terms, convergence of geometric series and the series Comparison tests, Cauchy's integral test, conditional convergent, Leibnitz rule,
CO3: Limit and continuity of functions of two variables,Taylor's theorem for function of two variables.
CO4: Maxima and minima of two variables, Lagrange's multipliers method, Jacobians.
CO5; Double integral (definition and evaluation technique)

Course: Elementary Number Theory

By the completion of this course the student will be able to know

CO1: Divisibility, Euclidean algorithm, least common multiple.
CO2: Prime numbers, the fundamental theorem of arithmetic or unique factorization theorem, Fermat numbers, linear Diophantine equation.
CO3: Congruence, special divisibility test, linear congruences, Chinese remainder theorem.
CO4: Arithmetic functions, Euler's theorem, the functions, Mobius function.
CO5: Primitive roots, primitive roots for prime, polynomial congruences, The congruence

Course: Modern Algebra: groups and rings

By the completion of this course the student will be able to know
CO1: Group: Definition, subgroups, cyclic groups,permutation groups
CO2: Cosets and normal subgroups quotient group.
CO3: Homomorphism and isomorphism Fundamental theorem on homomorphism of a group, natural homomorphism, second isomorphism theorem, third isomorphism theorem.
CO4: Ring, subring, characterization of ring, integral domain, field, subfield and prime field.
CO5: Ideal, quotient ring, ring homomorphism.

Course: Classical Mechanics

By the completion of this course the student will be able to know
CO1: Constraints, generalized coordinates, D'Alembert's principle and Lagrange's equations of motion.
CO2: Central force motion: Areal velocity, equivalent one body problem, central orbit, Virial theorem, Kepler's laws of motion.
CO3: Calculus of variation: functional, externals, Euler's differential equation, Hamilton's principle, procedure, least action principle.
CO4: Rigid body, generalized co-ordinates of a rigid body, Eulerian angles, Euler's theorem, finite rotations, infinitesimal rotations.

Course: Mathematical Analysis

By the completion of this course the student will be able to know
CO1: Riemann Integral monotonic functions, the fundamental theorem of integral calculus, mean value.
CO2: Improper integrals and their convergence, Beta and gamma functions.
CO3: Continuity and differentiability of complex function, analytic function, Cauchy- Riemann equations, harmonic and conjugate functions, Milne-Thomson method.
CO4: Elementary function, mapping by elementary function, Mobius transformation, fixed point, cross ratio, inverse and critical points, conformal mapping.
CO5: Metric spaces, neighbourhood, limit point, interior point, open and closed sets, Cauchy sequences, completeness.

Course: Mathematical Methods

By the completion of this course the student will be able to know
CO1: Legendre's equation, Bessel's equation Strun-Liouville boundary value problem.
CO2: Fourier series, Fourier series for odd and even functions, half-range Fourier sine series and half-range Fourier cosine series.
CO3: Laplace transform: Fourier Transform

Course: Linear Algebra

CO1: Vector Space: Linear transformations Dual Spaces Inner Product Spaces Modules its Definition, example and properties

Course: Graph Theory

CO1: To understand Graph. Application of graphs, finite and infinite graphs, incidence and degree, isolated vertex, pendent vertex and null graph, isomorphism, subgraphs, walks, path and circuits, connected graphs and components, Euler graph, operation on graphs, Hamiltonian paths and circuits, travelling sales man problem. Trees, some properties of trees,Fundamental circuits, Cutsets, Some properties of cutesets, Kurutowski's two graphs, different representation of planer graph, detection of

Course: Special Theory of Relativity

CO1: To understand Review of Newtonian Mechanics. Relativistic Kinematics Geometrical representation of space- time Relativistic Mechanics Electromagnetism

Physics

Programme Specific Outcomes

PSO1: To improve scientific attitude and to give emphasis on the development of experimental skills, data analysis, calculations, and also on the limitations of the experimental method and data and, result obtained
PSO2: To underline the strength of equations, formulae, graphs, mathematical tools to tackle the problems
PSO3: To understand the conceptual development of the subject and thereby develop the interest in the subject. A topic on this is introduced in the Emerging Physics Course
PSO4: To create interest in the subject and improve technological aspect through mini projects, projects, models, demonstrations, etc.
PSO5: To create interest in the subject to continue to work in the field of science in general and physics in particular
PSO6: To make students understand the role and contribution of Physics in the present day science and technology
PSO7: To motivate students to make career in Physics.

Course Outcomes

Course: Mechanics, Properties of matter, waves and oscillations

By the completion of this course the student will be able to
CO1: Understand the concepts of gravitation and planetary motions.
CO2: Describe the rotational motion of rigid body and moment of inertia, concept of liner and angular momentum.
CO3: Understand simple harmonic oscillations, damped harmonic oscillations, forced harmonic oscillations and explain the theory of simple pendulum, compound pendulum and Kater's pendulum.
CO4: Describe the concept of combination of S.H.M.'s and Lissajous figures, properties, production and applications of ultrasonic waves
CO5: Knows in details the elastic constants, properties of elastic bodies and different methods to measure elastic constants.
CO6: Introduction and explanation to kinematics of moving fluids, Bernoulli's theorem and surface of tension.

Course: Kinetic theory, thermodynamics and electric current

By the completion of this course the student will be able to

CO1: Describe details regarding kinetic theory of gases, transport phenomenon in gases like transport of mass, momentum and energy.

CO2: Explain the basic laws of thermodynamics, different thermodynamic processes, concept of internal energy, entropy and S-T diagram.

CO3: Describe Joule-Thomson effect, liquefaction of hydrogen and helium gases, thermo-dynamical systems, variables and relations.

CO4: Understand the motion of charge particles in electric and magnetic fields, working of mass spectrograph, linear accelerator and cyclotron.

CO5: Understand basic network theorems and construction and working of Ballistic Galvanometer; concepts of varying currents through different circuits.

CO6: Understand the concepts of alternating current with various combinations of resistor, capacitor and inductor, theory of transformer and energy losses in transformer.

Course: Mathematical background, Solid state electronic devices and special theory of relativity

By the completion of this course the student will be able to

CO1: Focuses on mathematical background and laws of electrostatics.

CO2: Explain basic terms of electrostatics, Maxwell's equations and Poynting vector.

CO3: Understand the semiconductor Physics, hall effect and semiconducting devices like diode, LED, BJT, J-FET, with emphasis on parameters and applications of OP-AMP.

CO4: Explain special theory of relativity, length contraction, time dilation and energy-mass relation.

CO5: Understand the structure of earth, types and causes of earthquakes, intensity of earthquakes,scattering, absorption and reflection of solar radiation by atmosphere and mechanism of cloud formation.

Course: Optics, Acoustics and renewable sources of energy

By the completion of this course the student will be able to

CO1: Understand geometrical optics and theory of interference of light, formation of Newton's ring, applications of Newton's rings.

CO2: Understand phenomenon of diffraction of light, Fresnel and Fraunhofer diffraction, construction and elementary theory of plan diffraction grating; use the laboratory techniques to determine wavelength of monochromatic source of light and resolving power of grating.

CO3: Understand concept of polarization of light, double refraction, production and detection of polarized light, Phase retardation plates.

CO4: Understand basic concepts, construction, working and applications of different types of LASER.

CO5: Understand the construction, types of fiber optics and role of fiber optics in communication system.

CO6: Understand the various renewable like solar energy, wind energy, ocean energy, geothermal energy, hydrogen energy system and fuel cell, solar energy storage and solar photovoltaic systems-concept, operating principle and applications.

Course: Quantum mechanics, Atomic and molecular spectroscopy, Nuclear Physics, Hybrid parameters and Oscillators

By the completion of this course the student will be able to

CO1: Understand origin of quantum mechanics. Describe concept of wave packet, Davisson Germer experiment, Heisenberg's Uncertainty principle, Thought experiment and Gamma ray microscope.
CO2: Know the Schrodinger equation and its applications, Schrodinger time dependent and time independent equations, Eigen functions and Eigen values and qualitative analysis of zero point energy.
CO3: Understand vector atom model, Stern-Gerlach experiment and different types of coupling. Know the properties and types of X-ray, experimental arrangement for Raman Effect.
CO4: Know about detection of charge particles by using G. M. counter, concept of nuclear physics like, Alpha decay, Beta decay, Concept of nuclear fission and fusion and construction of nuclear reactor.
CO5: Understand hybrid parameter, CE amplifier, Bias stability, Thermal runaway, Noise and distortion in amplifier.
CO6: Know properties, advantage and applications of negative feedback. Describe the construction and working of various types of oscillators and multivibrators.

Course: Statistical Mechanics and Solid State Physics

By the completion of this course the student will be able to
CO1: Understand basic concept of statistical mechanics, principle of equal priori probabilities and Boltzman entropy relation, Maxwell-Boltman statistics, Bose-Einstein statistics, Fermi-Dirac statistics and their applications.
CO2: Understood amorphous and crystalline solids, Diffraction of X-rays by crystals, Bragg's law, experimental determination of lattice parameters of NaCl crystal, Defects in solids.
CO3: Explain free electron theory, density of states, concept of Fermi energy and Band structure.
CO4: Explain diamagnetic, Paramagnetic, ferromagnetic materials; Classical Langevin's theory of dia and paramagnetic domains, Curie's law, Weiss's law and hysteresis.
CO5: Understand superconductors and its type, Meissner effect, Applications of superconductors, Nanomaterials, effect of reduction of dimensions on physical properties, applications of nanomaterials in different fields.

ZOOLOGY

Programme Specific Outcomes

PSO1: Provide knowledge about classification of non chordate and chordate animals
PSO:2 Provide knowledge about cell and its various cell organelles
PSO3: Motivate the students for study of local fauna and their natural habitat
PSO4: Provide knowledge about branches of biology like advance genetics, evolution, ecology, physiology and biotechnology

Course outcomes

Course: life and diversity of non-chordata & cell and developmental biology

- To study identification and classification of non-chordates
- To study use, care and maintenance of microscope
- To observe the life cycle of various insects
- Provide knowledge about embryological development

Course: Life and diversity of chordates, concept of evolution & Advanced genetics and animal ecology

- To study identification and classification of chordates

- Provide the knowledge of evolution by charts, models and fossil samples
- Provide knowledge about genetic traits and syndromes in humans
- To study the culture of drosophila in laboratory and observe their life cycle and mutant flies
- Provide knowledge about ecosystem ecology

Course: Animal physiology, economic Zoology and Molecular Biology, Biotechnology

- Provide knowledge about various systems in the body and their physiology
- Students learn detection of blood groups, Haemoglobin and measurement of blood pressure in human being
- Provide knowledge about economic zoology like Apiculture, Sericulture, Aquaculture
- Create awareness about locally available fishes and agricultural pests
- Provide knowledge about molecular biology
- Provide knowledge about advance tools and techniques in Zoology like camera lucida, PCR, microtechnique blotting techniques.

Computer Science

Programme Specific Outcomes

PSO1: Communicating computing concepts and solutions to bridge the gap between computing industry experts and business leaders to create and initiate innovation.
PSO2: Effectively utilizing their knowledge of computing principles and mathematical theory to develop sustainable solutions to current and future computing problems.
PSO3: Exhibiting their computing expertise within the computing community through corporate leadership, entrepreneurship and advanced graduate study.
PSO4: Developing and implementing solution based systems and processes that address issues and improve existing systems within a computing based industry.
PSO5: Information on Emerging Trends: Give information about software design and development practices to develop software applications in emerging areas such as Cloud and High performance computing, Data analytics and Cyber security.
PSO6: Successful Career and Entrepreneurship.The ability to employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur, and for higher studies.

Course Outcomes

Course: Fundamentals of Information Technology and C Programming

By the completion of this course the student will be able to
CO1: Be aware of the history of the discipline of Computer Science and understand the conceptual planning of the subject.
CO2: Understand the nature of the software development process, includeing the need to provide appropriate documentation.
CO3: Understand the working of computers, networking and programming languages like C.
CO4: Analysis of different functions, syntaxes, flow and types of programming languages and be able to program fluently in one or two programming languages.

CO5: Understand standard techniques for solving a problem on a computer, including programming techniques and techniques for the representation of information.
CO6: Understand the importance and the nature of operating systems and compilers.

Course: Web Technology and Advanced Programming in C

By the completion of this course the student will be able to
CO1: Understand the basics of websites.
CO2: Understand different elements used in creation of WebPages.
CO3: Application of different styles on WebPages using CSS.
CO4: Understand data transfers using XML.
CO5: Understand C programming in depth by knowing concepts of arrays, pointers, etc.
CO6: Understand working of functions, structures and file handling in C Programming.

Course: Object Oriented Programming with Data Structure and C++

CO 1: Introduction to data structure & types of data structure.detailed concept of Stacks, Linear arrays & its operations.
CO 2: Student will understand concept of Queues, Linked List and its different operations **CO 3:** Tees, Sorting and Searching techniques and its operations are studied.
CO 4: Understands Object Oriented Programming concepts which includes Classes and objects specifies, defining data member and member functions, Managing console I/O.
CO 5: Understands Functions in C++, Function overloading and Inline Function, Friend function. Array of Objects Pointer to objects, 'this' pointer. Constructor and Destructor, Usage of Constructor.
CO 6: Student will able to understand concept of Operator Overloading**:** Inheritance, virtual base classes and abstract base classes.

Course: RDBMS and PL/SQL

By the completion of this course the student will be able to
CO1: Understands fundamentals of DBMS, architecture of DBMS and database models.
CO2: Understands about relations and Normalization.
CO3: Understands about different commands in SQL and able to do program on SQL.
CO4: Student will understand different functions like conversion, numeric.
CO5: Understands what is PL/SQL,variable, curser and trigger.
CO6: Understands about transactions and their commands like GRAND and REVOKE

Course: RDBMS and Visual Basics

By the completion of this course the student will be able to
CO1: Understand basics of database management system.
CO2: Identify different models in database and knowing the differences in it.
CO3: Understand the Structured Query Language to interact with databases.
CO4: Understand basics of Visual Basic to get knowledge of Event Driven Programming.
CO5: Create Menu Driven Programs inVisual Basic.
CO6: Understand Internal Functions in Visual Basic.

Course: PL/ Advanced Visual Basics

By the completion of this course the student will be able to

CO1: Learn about the built-in functions in SQL.

CO2: Understand the basics of PL/SQL and Transactions.

CO3: Understand the securities applied on databases.

CO4: Understand different aspects of Visual Basic like, Dialog box controls, Forms and File Handling.

CO5: Program with different programming languages effectively in languages like Visual Basic and as back end tool like Oracle.

CO6: Proficient in problem solving using different programming languages.

Microbiology

Programme Specific Outcomes

PSO: Microbiology is a branch of science which deals with the study of microbiology life. This subject is also called the paramedical branch and having scope in medical science agriculture and industrial science

Course Outcomes

Course Semester-I

CO1: History of microbiology and scope of microbiology as modern science

CO2: Microbiology gives information to microscopes hape of micro-organisms and arrangement

CO3: Classification of micro-organisms characteristics

CO4: structure of organization of bacteria.

CO5: Microbial Nurition ,pure culture technique.

CO6: Reproduction and growth of bacteria.

Overall units gives information regarding subject initial ideas

Course Semester -II

CO1: Various give information regarding infection types

CO2: Microbial control How to control the micro-organism

CO3: Applied aspect of micro-organism in agriculture industrial with of microbial products biodegradation and bioleaching

CO4: Basic Biochemistry

CO5: Biostatics

CO6: Computer concept –Application of computer in biology

Course Semester -III

In this year microbial genetics and genetic engineering is including for study

CO1: Genetic Multiplication and expression

CO2: Genetic Regulations and mutation

CO3: Genetic eccombination

CO4: Looks of genetic engineering

CO5: Techniques of G.E.

CO6: Application of G.E.

Course Semester -IV

This Syllabus includes study on medical science And microbiology

CO1: Epidemiology-Which gives information regarding how dieses control

CO2: Immunology- This unit related immunity

CO3: Serology Techniques of diagonasis

CO4: Pathogenic bacteria – case of dieses and its representable organs

CO5: Other pathogenic bacteria – Human pathogenic

CO6: Antimicrobial chemotherapy Antifungal agent

Course Semester -V

Final year syllabus content environment microbiology and bioinstrumentation.

CO1: Microbial Association and air microbiology – various microbial flara. Present in environment imporfance studied

CO2: Soil microbiology – Microbes present in soil and utility for production and its industrial application various Geo-microbiology

CO3: Water Microbiology – Plankton present in water and water deseas and its tests.

CO4: Assessment of water uality and treatment bacteriological analysis coliforms ICMR and standard .Unit V;- BIoinstruments – various equipment present and used for testing and analysis propose Isotopic etc.

Course Semester -VI

This year syllabus contents more study on "Industrial production" which is having economical values.

CO1: Fermentation in general – study requirement for industrial production

CO2: Industrial production-I various lequire and its study

CO3: Industrial production II- It includes bakers yeast sep vit production

CO4: Microbiology of milk- various pasteurization process milk products spoilage of milk

CO5: Food microbiology – sources of microbiology confamination foodpoisoinim WHO Standards etc

CO6: Enzymology and metabolism Various enzymology and different cycles EMP & TCA cycles Studied well which is enzyme linked metabolic activity studied well.

Biotechnology

Programme Specific Outcomes

PSO: This is new emerging branch of science which gives biological development for every field and finds solution for hot issues .This subject is having scope in agriculture sector . Industrial sector medical science and environmental science.

Course Outcomes

Course Semester -I

CO1: Evolution of cell and introduction of biotechnology so for biological properties concerned it is necessary to study 1st cell (plant cell, Animal cell And microbial cell structure

CO2: Biomolecules - I Carbohydrates And Proteins –It is also Important to study change in biomolecules structure and organization change

CO3: Biomolecules II – Nucleic acid and protein

CO4: Sructure and function of cell organelles
CO5: Cell transport and Fractionation
CO6: Cytoskeleton, Cell division and stem cells

Course Semester-II

CO1: Scope and importance of microbiology. How micro scope is important for G.E. study
CO2: Microbial cell and structure It is important to know how is cell size structure of microbial cell and important for G.E.
CO3: Microbial Metabolism What is the metabolism reaction inside due cell and how can we structure
CO4: Industrial useful Microorganism in agriculture
CO5: Pathogenic microorganisms
CO6::-Basic techniques in microbiology

Course Semester-III

It density due essential maths Biostatics Bioinformation and some Biophysical methods.
CO1: Essential Maths- What is due important of math in biology study
CO2: Introduction to statistics
CO3: Measures of central tendencies
CO4: General Biophysical methods
CO5: Thermodynamics as applied to biological system
CO6: Bioinformatics Introduction

Course Semester-IV

Genetic engineering and microbial biotechnology
CO1: molecular basis of life
CO2: Protein synthesis
CO3: Gene clonnig
CO4: Microbial Biotechnology-I Medicine
CO5: Microbial Biotechnology-II Industry
CO6: Microvbial Biotechnology-III Environment

Course Semester-V

CO1: Animal cell biotechnology studies the structure of cell and how change
CO2: Design and layout of the laboratory, biosafety cabinets Deionizers and water purification system
CO3: Introduction to the balanced salt solution and simple growth medium.
CO4: Type of Tissue culture
CO5: Application of animal cell culture
CO6: specialized Techniques in Biotechnology.

Course Semester-VI

CO1: Growth
CO2: Plant Growth substances
CO3: Plant Tissue Culture

CO4: In vitro technique in tissue culture
CO5: Single cell suspension
CO6: Somatic Hybridization

All the above units gives information to student how can we do tissue culture of different plant parts produces due number of plants by using various techniques. What is the requirements of cell for multiplication. This year study also important for business development and conservation of Biodiversity and extinct species of flora.

Bharatiya Mahavidyalaya, Amravati

Bachelor of Arts (B.A.)

Programme Outcomes

PO1: Provide knowledge and understanding of various fields of study in core disciplines in the humanities and social sciences
PO2: Develop critical and analytical skills to the identification and resolution of problems within complex changing social, linguistic and literary contexts
PO3: Understanding of the general concepts and principles of selected areas of study outside core disciplines of the humanities, social sciences and languages
PO4: Follow independence in learning appropriate theories and methodologies with intellectual honesty and an understanding of ethical and human values
PO5: Encourage students to analyse the problems and apply their knowledge for remedies thereof
PO6: Enhance students skills of effective communication and language learning i.e. reading, writing, listening and speaking another language with fluency and understand its cultural value
PO7: Become well informed and updated member of the community and responsible citizens
PO8: Work with self esteem, self reliance, self-reflection and creativity to face adversities in the work and personal life

English

Programme Specific Outcomes

PSO1: Make students English Language proficient to improve their employability
PSO2: Train them in the use and application of English language to overcome their day to day difficulties
PSO3: Tribal can preserve and popularize their language and culture through English
PSO4: Imbibing moral and human values through study of language and literature
PSO5: Give them a broader picture of the world through making them learn English language and literatures of the world
PSO6: Introduce them with technological advancement in English language

Course Outcomes

By the completion of this course the student will be able to
CO1: Students will learn analysis of the text from prose passages for understanding the contents
CO2: Prose passages will help improve reading and writing skills
CO3: They will develop imaginative thinking by reading and reciting poetry
CO4: Language activities will promote effective use of language in day to day life and enhance professional skills
CO5: The course content will enable rational thinking along with learning life skills.
CO6: Students will learn professional ethics.
CO7: Students will learn environmental consciousness.
CO8: Developing sensitivity regarding gender equality.

Marathi

Programme Specific Outcomes

PSO1: To make students learn various literary streams, their nature, scope etc.
PSO2: To go through the contemplation by numerous thinkers on human life, values, and human problems expressed in Marathi
PSO3: To enhance empathy, inclusiveness, tolerance and human values
PSO4: To make the students study multi disciplinary aspects of Marathi
PSO5: To learn about Marathi culture with its variety and plurality vis a vis Indian culture
PSO6: To develop commutation skills
PSO7: To motivate students to make career in Marathi

Course Outcomes

By the completion of this course the student will be able to
CO1: Develop Attitude of Literary Forms. (Marathi Poetry & Story)
CO2: Develop Reading, Writing & Communication Skills of Students.
CO3: Develop Attitude of Literary Forms. (Marathi vaicharik sahitya & Novel)
CO4:Get the students introduced with interdisciplenery aspects of Marathi .
CO5: Information about Literary Theory.
CO6: Develop Attitude of Literary Forms. (Lalit Gadya)
CO7: Get the students introduced with various streams of Marathi
CO8: Information about the history of MODERN Marathi Literature.
CO9: Develop Attitude of Marathi Linguistics & Grammar.

Hindi

Programme Specific Outcomes

PSO1: Promote Hindi as our national language and a symbol of nationality
PSO2: Make students understand its simplicity and lucidity
PSO3: Study and understand Literature in Hindi and significance of its translation
PSO4: Popularize Hindi and promote people to adopt Hindi along with their mother tongue
PSO5: Study Hindi along with local tribal languages
PSO6: Promote regional language translation with the help of study of Hindi

Course Outcomes

By the completion of this course the student will be able to
CO1: Students will understand the various aspects of Hindi Language and literature.
CO2: Hindi is a national language and students will understand and comprehend its significance and relevance.
CO3: They will learn Hindi language and its usage in day to day and professional life.
CO4: Students will develop imaginative and language skills during study of Hindi and Hindi literature.

Economics

Programme Specific Outcomes

PSO1: To study economics theories and principles and see their applications
PSO2: Understand and study the Indian economy
PSO3: Understand and study monetary policies of India
PSO4: Determine economic variables including inflation, unemployment, poverty, GDP, balance of payments
PSO5: Understand the behaviour of financial and money markets and perform cost-benefit analysis for making investment decisions

Course outcomes

Course: Micro Economics

On completion of the course, students are able to
CO1. Aware about fundamental concepts of economics
CO2. Understand economic approach
CO3. Know role of market in real life.
CO4. Understand the theory of oligopoly & duopoly

Course: Economy of Maharashtra

CO1. Understand nature of Maharashtra economy
CO2. Understand population & economic development
CO3. Understand infrastructure and economic development
CO4. Understand role of agriculture in Maharashtra economy

Course: Macro Economics

On completion of the course, students are able to
CO1. Understand macro economic analysis
CO2. Understand of national income
CO3. Understand classical & Keynesian theories of output and employment
CO4. Understand consumption & Investment function
CO5. Understand concept of public fiancé
CO6. Understand concept of public revenue
CO7. Understand concept of inflation and deflation

Course Indian Economy Developments and Environmental Economics

On completion of the course, students are able to
CO1. Understand India's foreign trade
CO2. Understand concept of globalization
CO3. Understand public expenditure in India
CO4. Understand public debt& deficit finance
CO5. Understand concept of fiscal policy
CO6. Understand concept of budget & deficit finance

CO7. Understand international trade theories
CO8. Understand gains from international trade & trade policy
CO9. Understand economics of agriculture
CO10. Understand Indian agriculture sector
CO11. Understand the concept of environmental pollution
CO12. Understand relation between population and environment
CO13. Understand types of pollution and its remedies

Geography

Programme specific outcomes

PSO 1 – Study Geography with an aspect to developme student interest for Geography as a subject of study.
PSO2 - Understand and study the geographical aspect
PSO 3- study environmental and Climatical Issues.
PSO 4- understand and study the geography of India with reference to Maharashtra,
PSO 5- prepare student for various competitive examination.

Course outcomes

Course – paper-1

Upon successful completion of the course, student will be able to.
CO1 :- Understand the Nature of Geography meanings , scope and Branches of Geography.
CO2 :- Explain the origin of the earth, its longitude and latitude.
CO3 :- Describe earth rotation, revolution and its effecs an explain local and standard time.
CO4 :-Describe lunar and solar Eclips.
CO5:- Describe and explain earth movement – Orogenic , and Eporgenic movement.
CO6:- understand causes , types and effect of earthquake and volcanoes.

Course- Elements of geomorphology.

CO1: - Describe and explain the classification and characteristic of rock .
CO2:-Describe the work of steream and explain the land forms associated with river
CO3 :- Describe land scape associated with glacier-.
CO4:- Describe land scape associated with wind
CO5 :- Explain the land scale associated with under ground water.
CO6 :- Explain the application of geomorphology and human activities.

Course:- Climatology

CO1:- Introduce student with climatology, defination , significance
CO2:- I) Describe composition and structure of the atmosphere .
II) Explain the distribution and factor affecting the distribution of temperature
III) Explain the range of temperature.
CO3:- Describe atmospheric pressure and wind formation.
CO4:- Explain atmospheric moisture and forms of precipitation.
CO5 :- Understand atmospheric pollution and global warming.

Course:- Oceanography

CO1:- Explain nature and scope of oceanography.
CO2:-Understand surface configuration of the ocean floor.
CO3:-Explain temperature of ocean sea and distribution of salinity of ocean water.
CO4:-Understand the circulation of Oceanic water
CO5:- know about the marine deposit and coral Reef.

Course:- Geography of India.

CO1:- Explain the physical landscape of India and the morphological region of India.
CO2:- Explain the distribution and conservation of Iron, Magnese, Boxite ,Power resource
CO3:- I) Describe spetial distribution of population.
II) Describe industrial regions of India.
CO4- Explain the basis of regional divisions of India in connection with population, agriculture Industry, transport and trade.
CO5:- Understand the application of geomorphology and human activities.

Home Economics

Programme specific outcomes

PSO1: To create an awareness about decision making & management in family
PSO2: Develop employability skills & the skill of earning while learning
PSO3: Understand basic concept of nutrition & dietetics
PSO4: Develop ability to plan diet for various stages of life & disease
PSO5: Understand Human development regarding children's physical & Psychological development

Course Outcomes

Course: Home management

On completion of the course, students are able to
CO1: Understand the Home Economics as education of life
CO2: Understand the importance of Home management & uses of family Resources
CO3: Understand role of decision making in home management
CO4: Understand the skill of learning
CO5: Aware about water management

Course Food Science and Water Management

CO1: Understand basic concept of food and nutrition.
CO2: Know the relation between health and nutrition.
CO3 : Understand therapeutic diet
CO4: Aware about food preservation & food Adultration

Course : Human Development

CO1: Understand Prenatural Development
CO2: Understand various behavior problems of childhood
CO3: Realise the effect of Heredity and Environmentof Children's development

CO4: Understand importance of decipline (Punishment and Reward)
CO5: Understand Role of Parent –child relationship

Political Science

Programme Specific Outcomes

PSO1: Political Science students will be able to write, read, speak and listen effectively in academic and social contexts
PSO2: Political Science students will be able to construct research questions and use appropriate sources and research methods to answer them
PSO3: Political Science students will analyze individual and group political behavior; the political process; public policy and administration; and case law within government
PSO4: Political Science students will analyze the core intellectual traditions in political thought and apply their central tenets to contemporary political questions and issues
PSO5: Political Science students will analyze the behavior of state and non-state actors and the nature of their interactions
PSO6: Political Science students will compare and contrast the various political, social and economic systems that exist across the international community and analyze the political consequences of those variations
PSO7: Political Science students will use analytical skills to understand civic, social and environmental challenges
PSO8: Political Science students will demonstrate social responsibility and ethical reasoning within a variety of contexts
PSO9: Political Science students will generate a scholarly product that demonstrates appropriateknowledge, technical proficiency, information collection, synthesis, interpretation, presentation, and reflection

Course Outcomes

Course: Indian Constitutional Provisions and Local Self Government

By the completion of this course the student will be able to
CO1: Characteristic of Indian Constitution, Preamble, Fundamental Rights.
CO2: Directive Principal of State Policy, Fundamental Duties, Citizenship
CO3: President, Vice President, Prime minister
CO4: Parliament- loksabha, Rajyasabha
CO5: Judicial System of India-Supreme Court, High Court

Course: Indian Constitutional Provisions and Local Self Government

By the completion of this course the student will be able to
CO1: Election Commission of India- structure, power and Function
CO2: state Executive- Governor, Chief Minister, council of Minister
CO3: State Legislature- structure, power and Function
CO4: local self Government
CO5: women Political Participation in Panchyat raj, Nagpur Pact in Maharashtra formation, Right to Information Act

Course: Comparative Government and Politics

By the completion of this course the student will be able to

CO1: Meaning of comparative Government, Approaches of the comparative study, Constitutionalism

CO2: The Government and Politics of U.K- Constitution, Executive, Legislature, Judiciary, Political Party

CO3: The Government and Politics of U.S.- Constitution, Executive, Legislature, Judiciary, Political Party

CO4: The Government and Politics of Switzerland- Constitution, Executive, Legislature, Judiciary, Political Party

CO5: The Government and Politics of China- Constitution, Executive, Legislature, Judiciary, Political Party

Course: Political Theory

By the completion of this course the student will be able to

CO1: Nature and Significance of Political Theory, Meaning and scope

CO2: State- Theory of state Origin- Devine theory, Social Contract Theory, Evolutionary Theory

CO3: Political Concept- Sovereignty, citizenship, Liberty

CO4: Equality and Justice, Democracy

CO5: Development and Welfare State

Sociology

Programme Specific Outcomes

PSO1: Introduce students to social institution, organizations and their nature, work and utility

PSO2: Create awareness among students about various social problems their nature and causes and to study and find out remedies

PSO3: To teach students about social values and norms and cultivate ideal citizens

PSO4: To introduce students with tribal society and culture, their problems and develop positive attitude towards them

Course Outcomes

Course: Introduction to Sociology

By the completion of this course the student will be able to

CO1: learn origin and development of Sociology and its relations with other social science subjects.

CO2: introduce students with various social systems and their utility.

CO3: make students aware of basic social concepts like society, community, groups,etc.

CO4: teach them the importance of socialisation, culture, social control, etc.

Course: Indian Social Structure and Social Problems

By the completion of this course the student will be able to

CO1: introduce students with tribal, rural and civil socities.

CO2: bring primary Indian systems like family, caste, marriage, class to the notice of students.

CO3: make students aware of several social problems, their causes and remedeis thereof.

Course: Social Anthropology

By the completion of this course the student will be able to

CO1: introduce students with origin, nature and ambit of Social Anthropology and its relations with other social science branches.

CO2: bring various social systems of tribal community like family, clan, marriage to the notice of students.

CO3: introduce students with tribal economy, faith, religion, magic and their political systems.

CO4: inform srudents about Problems of tribals, reformative programs and various schems addressing their problems.

Bharatiya Mahavidyalaya, Amravati

Bachelor of Commerce (B.Com.)

Programme Outcomes

PO1: To build conceptual foundation and application skills in the areas of Accountancy, Finance, Management, research and higher education

PO2: To sharpen the students analytical and decision making skills

PO3: To provide the students with a unique ability to manage accounts, people and organizations across the world with a combination of B.Com Degree

PO4: To build life skills through value based education and service oriented program

PO5: To provide the students a competitive edge in the job market by equipping them with financial and management accounting techniques covering the technical areas that accountants are required to master

Statistics

Programme Specific Outcomes

PSO1: Mathematical knowledge to analyze and solve problems

PSO2: Statisticals reasoning and inferential methods, modeling and its limitations

PSO3: interpreting and communicating the result of a statistical analysis

PSO4: Data analysis using statistical computing tools and software

PSO5: Enhacing confidence through problem-solving method

Accounting

Programme Specific Outcomes

PSO1: Introduction to the real/ practical way of Accountancy.

PSO2: To enbale students with computerised accounting skills throgh MS-Excel and Tally to bring out a good Book-keeper in themselves

PSO3: Trying to bring out a good accountant.

PSO4: Students should be able to find out the profitability of the business, costefficiency

PSO5: Explain the basic nature of a joint stock company as a form of business Organisation and the various kinds of companies based on liability of their members

PSO6: Describe the types of shares issued by a company; explain the accounting Treatment of shares issued at par, at premium and at discount including over subscription

PSO7: Outline the accounting for forfeiture of shares and reissue of forfeited shares under varying situations

Computer and Information Technology

Programme Specific Outcomes

PSO1: Study the history of the discipline of computer and understand the concepts of the subject

PSO2: Understand the nature of the software development process, including the need to provide appropriate documentation

PSO3: Understand the working of computers, networking and programming languages
PSO4: Analysis of different functions, syntaxes, flow and types of programming languages and be able to program fluently in one or two programming languages
PSO5: Understand standard techniques for solving a problem on a computer, including programming techniques and techniques for the representation of information
PSO6: Explore the ways of programming with different logic than traditional ways
PSO7: Designing webpages using scripting languages like HTML, CSS and XML
PSO8: Understanding databases and operating it with SQL and PL/SQL

Business Regulatory Framework and Company Law

Programme Specific Outcomes

PSO1: Critically review the Indian legal system and institution relevant to commercials actors and advisors and argue its relevance in managing contemporary business organizations
PSO2: Critically examine the general areas of contact and corporate law and regulation encountered by commercial in local and global settings

Essentials of E-Commerce :

Programme Specific Outcomes

PSO1: Analyzing the impact of e-commerce on business models and strategy
PSO2: Recognize and discuss global E-commerce issues
PSO3: Assess electronic payment systems
PSO4: Growth in entrepreneurship skill of the students Economics:
PSO1: Use Supply and Demand curves to analyze the impact of Taxes etc. on consumer surplus and market efficiency
PSO2: Apply the concept of opportunity cost
PSO3: Employ marginal analysis for decision making
PSO4: Analyze operation of market under varying competitive conditions
PSO5: Analyze causes and consequences of on employment inflection and growth
Business Environment:
PSO6: Imparting them the specific knowledge of Business Environment
PSO7: Analyse the political, social, economical, technological and other configurations that supports cross-border trade
PSO8: Apply an understanding of the nature of the multinational firm as institutional structure for the conduct of the cross-border trade ande investment
PSO9: Analyse the key decisions that multinational firms make in relation to the choice of markets and entry strategies

Money and Financial System

Programme Specific Outcomes

PSO1: Identify the principles behind the workings of the financial system
PSO2: Demonstrate knowledge about the evolution of financial markets and various

credit instruments; and the evolution of money and its functions

PSO3: Analyse the operations of equity and debt (bond) markets including interest-rate movements

PSO4: Demonstrate an understanding of the history, evolution, structure, operations and regulation of modern central banking and financial systems together with the design and conduct of monetary policy, with particular focus on the Asia-Pacific

PSO5: Demonstrate an understanding of the principles of modern commercial banking and operational issues within a globalised economic system

PSO6: Outcome of the subject comes under Management board

Principles of Business Organization/ Principles of Business Management

Programme Specific Outcomes

PSO1: Identify major business functions of accounting, finance, information systems, management, and marketing

PSO2: Describe the relationships of social responsibility, ethics, and law in business

PSO3: Explain forms of ownership, including their advantages and disadvantages

PSO4: Identify and explain the domestic and international considerations for today's business environment

PSO5: Identify and explain the role and effect of government on business

PSO6: Describe the importance and effects of ethical practices in business and be able to analyze business situations to identify ethical dilemmas and ethical lapses

PSO7: Explain the banking and financial systems, including the securities

Course outcomes

Course: Principles of Business Organization

On successful completion of this course students will be able to

CO1: Study the forms of business organization understand the basic concepts and recent trends in commerce, Trade & business practices. Understand the functioning of trade associations and study the industrialization.

CO2: Explain forms of ownership, including their advantages and disadvantages, identify and explain the domestic and international considerations for today's business environment: social, economic, legal, ethical, technological, competitive, and international and identify and explain the role and effect of government on business.

Course: Advanced Accountancy (AAC)

On successful completion of this course students will be able to

CO1: Learn the Basics of Advanced Accountancy & record Accounting Transactions in Journal, Ledger Posting, Prepare Trial- Balance and Rectify the Errors if any.

CO2: Learn to keep various types of Subsidy Books like Purchase Book, Sales Book etc. and maintain Various Types of Cash Book.

CO3: Learn to prepare Final Accounts of Individuals.

CO4: Learn Various Methods of Depreciation and Solve Problems on- Straight line Method and Reducing Balance Method.

CO5: Prepare all types of Bank Reconciliation Statements. In and all Trying to bring out a good Accountant within themselves. He must be able to find out the profitability of the business, cost efficiency.

Course: Computer Fundamentals and Operating System

On successful completion of this course students will be able to

CO1: Learn the concept of Block Diagram, Input and Output, Concept of Software and types Software.

CO2: Learn the concept of fundamentals of computer, Generations of Computer, Types and Applications of Digital Computer.

CO3: Learn the concept of Memory and types primary memory and Secondary memory. CO4: Learn the Input and Output Device

CO5: Get the knowledge of the concept of MS-Word and Formatting Documents.

Business Economics:

CO1: Describe and explain how microeconomics models can be used to consider fundamental economics choices of households and firms.

CO2: Describe and explain how macroeconomics models can be used to analyses the economy as a whole.

CO3:Describe and explain how Government police influences microeconomics outcomes.

CO4: Interpret and use economic models diagrams and tables use them to analyses economic situation.

CO5: Be able to evaluate the effects of Law of Demand, Law of Variable Proportion.

Course: Principles of Business Management

On successful completion of this course students will be able to

CO1: Discuss and communicate the management evolution and how it will affect future managers, Observe and evaluate the influence of historical forces on the current practice of management and Identify strengths, weaknesses, opportunities, and threats of information technology for businesses.

CO2: Practice the process of management's four functions: planning, organizing, leading, and controlling, Identify and properly use vocabularies within the field of management to articulate one's own position on a specific management issue and communicate effectively with varied audiences.

CO3: Explain how organizations adapt to an uncertain environment and identify techniques managers use to influence and control the internal environment.

CO4: Evaluate leadership styles to anticipate the consequences of each leadership style.

CO5: Gather and analyze both qualitative and quantitative information to isolate issues and formulate best control methods.

Course: Financial Accounting (FAC)

On successful completion of this course students will be able to

CO1: Prepare Accounts of Non-Trading Institutions.

CO2: Prepare Accounts of Co-operative Societies.

CO3: Prepare Accounts of Agriculture Farms.

CO4: Prepare Accounts of Hire, purchases and Instalment purchase.
CO5: Understand Law`s of Insolvency and prepare Accounts of Insolvency of Individuals.

Course: Computer Fundamentals and Operating System –II

On successful completion of this course students will be able to
CO1: Understand concept of Operating system, advantages and disadvantages of operating system
CO2: Get the practical knowledge of UNIX /Linux MACINTOSH MS –Window Operating System command
CO3: Understand the concept of Memory management techniques, CPU management, Data management
CO4: Understand the concept only regarding modern communication likes fax voice mail , e mail Tele conferencing and video conferencing file exchange
CO5: Understand the concept of word processing and working with table and graphics using MS word 2007
CO6: Understand the concept of MS Power point presentation using power point2007

Course: Business Economics

Upon successful completion of the requirements for this course students will
CO1: Be familiar with introductory canonical models of consumer and macro economy. CO2: Have a basic understanding of the operation of a modern economy.
CO3: Be able to evaluate the effects of Government interventions in individual markets and in the macro economy.
CO4: Analyze operation of markets under varying competitive condition.
CO5: Analyze operation of factor pricing.

Course: Corporate Accounting

On successful completion of this course students will be able to
CO1: This course shall able the students to develop awareness and train them in Corporate Accounting inconformity with the Provisions of Indian Companies Act 1956 and Indian Accounting Standards.
CO2: Student would Learn to prepare Accounting for Liquidation of companies – Preparation of Liquidator's Final Statement of Account. Accounting for Amalgamation, Absorption and External Reconstruction of companies – Calculation of purchase consideration.
CO3: This course students will be able explain the Concept of Fund, What is flow of Fund, Rules of Fund flow statement, Schedule of changes in working capital, Statement of sources and Application of Fund.

Course : Business Economics

CO1: Explain the evolution of money and its nature and functions of money, Explain how information about the future can reduce the uncertainty associated with future monetary value, and Explain the concept " value of money"
CO2: Identify the principles behind the workings of the financial system, the Indian Banking System, the role of development banks in India. To study the law and practice of Banking System in India, study the recent trends in Indian Banking

System

CO3: Assess the responses of the economy to both monetary and fiscal policy, Explain the basic purposes of the monetary and financial systems. Identify the markets for tocks, bonds, derivatives, and currencies.

CO4: Demonstrate an understanding of the history, evolution, structure, operations and regulation of commercial banking, central banking and financial systems together with the design and conduct of monetary policy.

Course: Income Tax and Audit

By the completion of this course the student will be able to

CO1: Understand basic Concepts of Income Tax.

CO2: Compute Tax liability on Various Heads of Income like Salary, House Property, Business and profession, Capital Gain & other sources.

CO3: Compute Tax liability on Various Heads of Income, & understand Tax Management & Tax Administration.

CO4: Understand Basic Concepts of Auditing, Types of Audits, Audit Programme, Audit Books, Routine checking and Vouching.

CO5: Understand the power and duties of Company Auditor & preparation of Audit Report.

CO6: Understand the Special Audit of Banking, Insurance and Non-Profit Companies & Educational Institutes also Investigation. In and all to Make him/her a good Tax Consultant or an Auditor.

Course: Information Technology and Business Data Processing

CO1: Understand the use of information technology and data in computing use of data processing

CO2: Understand the Database and Database management system

CO3: Understand use of ms excel 2003/2007/higher

CO4: Understand the concept of MS-Excel, spreadsheet Basics and Editing and Formatting Worksheet

CO5: Understand computerizing accounting and taxation

CO6: Work with tally 9.0 and higher version

Course: Business Mathematics and Statistics

By the completion of this course the student will be able to

CO1: Recognize the importance and value of mathematical and statistical thinking approach to problem slowing, on a diverse variety of disciplines.

CO2: Become familiar with a verity of examples where mathematics and statistics helps accurately explain abstract or physical phenomena.

CO3: Independently read mathematical or statistical literature of a various types, including survey articles, scholarly books and online sources.

CO4: Become life-long learners who are able to independently expand their mathematical or statistical expertise when needed.

CO5: Analyze Mathematical and statistical knowledge and solve problems.

Course: Internet world wide web:

On successful completion of this course students will be able to

CO1: Develop skill among students in applications of internet in commerce education.

CO2: Explain the Concept of HTML, HTML Organization, Creation of HTML files, HTML editor, Tags and attributes of HTML, learning the basic structure, elements of HTML, Creation of web page using HTML and Introduction to Internet and World Wide Web, web browsers, web sites, search engines.

CO3: Explain HTML Form Building - Form elements , Tab navigation, Access Keys, Developing web pages using frames, Hyperlinks, images.

Course: Business Environment (BEM)

By the completion of this course the student will be able to

CO1: Understand Indian Business Environment, National Income, Parallel Economy, Indian Trade & Industry and Indian Agriculture.

CO2: Understand Problems in the Development of India. Human resources, unemployment and poverty in India.

CO3: Understand the Role of Government- Industrial Policy, Free Trade Policy, Liberalization, Privatization & Glob.

CO4: Understand & Analyze Planning in India, Finance Commission Current Trends in Indian Econocnplaning.

CO5: Understand the International Business Environment, International Economic Institutions and Grouping like GATT, World Bank, WTO, IMF, SAFTA etc.

Course: Essentials of E-Commerce (EOE)

In this subject Essentials of E-Commerce the outcomes are as under

CO1: Analyzing the impact of e-commerce on business models and strategy

CO2: Recognize and discuss global E-commerce issues

CO3: Assess Electronic Payment Systems

CO4: Growth in Entrepreneurship Skill of the Students

CO5: Understand various Emerging Business Models of E- Commerce.

Course: Cost and Management Accounting

Upon successful completion of this course students will able to

CO1: Demonstrate an understanding of the difference between job-order costing and process costing.

CO2: Identify and describe the basic cost concepts and understand the manufacturing environment.

CO3: Demonstrate knowledge of the tools to make management decisions using relevant costs and capital budgeting techniques.

CO4: Explain how an organization develops there master budget.

CO5: Demonstrate knowledge of Standard costs and analysis of variances.

Course: Business Regulatory Framework and Company Law

Upon successful completion of the module, candidates are expected to able to

CO1: Apply their knowledge of the law of trusts to establish the presence or absence of tortoise liability and consequences which result.

CO2: Discuss the various legal and regulatory rules covered in the course and the respective rights and obligations created under these.

CO3: Apply their knowledge of the legal rules governing contract to determine:

- The existence and validity of a contract.
- The rights and obligations of the parties to a contract.

CO4: Discuss and explain the regulatory framework, mechanisms and laws relating to corporate decision making, opportunities and governance.

CO5: Analyze, explain and apply the essential aspects of a good corporate governance framework and practice for companies.

Bharatiya Mahavidyalaya, Amravati

M.Sc. Computer Science

Programme Specific Outcomes

PSO1: Able to identify, analyze and develop computer applications to meet desired needs within realistic things such as security and applicability

PSO2: Able to select modern computing tools and techniques which includes knowledge of the following topics: various types of finite automata, elective subjects in the research areas were studied. Areas of specialization include artificial intelligence, Compiler, Networking concepts and other Programming languages.

PSO3: Able to conduct experiments based on Programming languages to enhance their practical skills in order to implements knowledge in industry.

PSO4: Information on Emerging treads, Give information about software design and development practices to develop software applications in emerging areas such as cloud and high performance computing, data analytics and Cyber security.

PSO5: Successfully pursue lifelong learning to fulfill their goals. Students become professionals in industry, government, research, and consulting firms.

Msc part I: Semester-I

1MCS1: Digital System and Microprocessors

By the completion of this course the student will be able to

CO1: Understand how computer actually perform mathematical operation.

CO2: Understand logic family, how the number are converted into other number systems.

CO3: Understand design of arithmetic circuit and how computer performs addition, subtraction.

CO4: Understand the construction and working of flip-flops and other register with purpose of register.

CO5: Understand microcomputer system evolution, and architecture of 8086 microprocessor.

CO6: Understand interfacing and various interrupt in8086up microprocessor

1MCS2: .NET Technologies and C#

By the completion of this course the student will be able to

CO1: Understand .net, the C# environment and get the overview of C# language.

CO2: Understand structure of C# program and all basic entities of C# program.

CO3: Understand how object oriented programming is implemented in C#.

CO4: Understand the concept of operator overloading types of errors in C#.

CO5: Understand multithreading in C# and file manipulation in C#.

CO6: Able to understand how data can be access with .net

1MCS3: OPERATING SYSTEM

By the completion of this course the student will be able to

CO1: student are able to understand structure of OS and services provided by operating system.

CO2: understand the concept of process and also understand the scheduling of process in operating system.

CO3: understand how process can be synchronized and how deadlocks can be managed by OS.

CO4: understand the memory management system of computer.

CO5: understand file organization and access in computer also the protection of files in computer system.

CO6: understand the concept of distributed file system and remote file access in computer.

1MCS4: Computer Networks

By the completion of this course the student will be able to

CO1: Understand the Digital Communication in Computer Network. Studies Network Reference 4 layer model

CO2: The working of Application layer of OSI model and various protocol HTTP, FTP

CO3: Understand principle and working of Transport layer and working of TCP.

CO4: Understand the working of Network layer and Internet protocol.

CO5: Understand the working of Data Link layer, ATM, IEEE, 802.11.

CO6: Understand the concept of network security and internet network management framework

Msc part I: Semester-II

2MCS1: java programming

By the completion of this course the student will be able to

CO1: Understand java tools and learn about loop structure of java.

CO2: Understand object oriented concept of the java programming.

Co3: Understand packages in java and how we implement packages of java.

CO4: Understand the implementation of applet in java and Methods.

CO5: Understand java I/O Classes and learn Concept of file handling.

CO6: Learn about different interfaces of java programming.

2MCS2: Data Structure

By the completion of this course the student will be able to

CO1: Understand the concept of the data Structure and Learn about data Structure.

CO2: Understand the Structure of Stack and Queues and learn about in depth operations.

CO3: Understand Trees is a more efficient way to store data and used to manage data in hierarchical Way in other sense application of Trees.

CO4: Understand important properties of Searching and the nature of sorting in depth.

CO5: Understand the Structure of graphs and the different types of graph in Data Structure.

CO6: Learn about Technique of indexing and how we efficiently retrieve records from the data base.

2MCS3: Software Engineering

By the completion of this course the student will be able to

CO1: Understand the ability of the software and major component of the software & software application and layer models of software.

CO2: Learn about software frameworks and understand principle models of software & the entire concept in an effective manner.

CO3: Learn about different modeling approach understand E-R diagram of software like Logical approach of software.

CO4: Understand the software design techniques in details and effectively.

CO5: Understand the structure of software quality and learn about different software metrics.

CO6: Understand software techniques and learn about working at software techniques

2MCS4(1): Discrete Mathematical Structures

By the completion of this course the student will be able to

CO1: aware of mathematical logics which are used in computer system and students will know how these logics actually works in computer.
CO2: Understand set theory which is a central part of mathematical operations in computer.
CO3: Understand algebraic structure and also they deeply know the concept of grammar and languages in computer.
CO4: Understand the Boolean algebra in computer and the concept of lattice.
CO5: Understand the basic concept of graph theory and they will be used to with simple precedence grammar in computer.
CO6 : know fault detection in combinational switching circuits and understand various methods of fault detection in computer.

2MCS4(2): Compiler Construction

By the completion of this course the student will be able to
CO1:Students will able to study about typical compiler structure and their implementation Programming language grammars used in that languages
CO2: Students will able to understand working of scanner with the different techniques of parsing. Here we can take a glance on various symbol table organizations.
CO3: Student will able to do a deep study about static and dynamic memory allocation and accessing that location for strings and arrays.
CO4: The study of various control structures used in compilation process like procedural calls, conditional execution and iteration control is studied in detailed.
CO5: Students will able to study about compilation of various Input\Output statements, I\O routine and compilation of FORMAT statements.
CO6: Understand and learn about the various types of optimization with the study of program flow analysis and a study about how a writing of compiler can be done

M.Sc. II - Semester III

3MCS1: Data Mining and Data Warehouse

By the completion of this course the student will be able to
CO1: understand the concept of data mining and its functionality. Various methods of data processing studied.
CO2: Understands OLAP technology & studied details of multidimensional data.
CO3: Students will able to understand various kinds of association rules and various mining methods.
CO4: Learn about cluster analysis and studied different models in detailed.
CO5: understand cluster analysis and grid based models.
CO6: Learn cluster analysis and application of data mining and trends in data mining.

3MCS2: Computer graphics:

By the completion of this course the student will be able to
CO1: Understand geometry and line generation concept in depth.
CO2: Understand and learn about polygon and different types of Transformation Techniques.
CO3: Understand the different types of segment in computer graphics learn about Clipping Techniques.
CO4: Learn about handling algorithm and understand in depth 3D geometry.
CO5: Learn effectively about hidden surfaces and lines and understand different algorithm.
CO6: Understand Shading Techniques of graphics and Learn about Curves.

3MCS3: Client –Server Computing

By the completion of this course the student will be able to

CO1: Understand Networking in java and Learn about TCP/IP server socket.

CO2: Understand and Learn in depth java connectivity and programming.

CO3: Understand and Learn in depth Servlets and cookies.

CO4: Understand java script and Learn about from object in java.

CO5: Understand the nature of java RMI packages in depth.

CO6: Learn about java scripts and understand concept of Beans in depth.

3MCS4: Distributed Operating System

By the completion of this course the student will be able to

CO1: Understand about the goals of distributed operating system. Also can take detail information about how communication occurs in distributed system.

CO2: Deeply study about different algorithms related to the synchronization in distributed system.

CO3: Learn detailed study about the different processes and processors in distributed system are done.

CO4: Students will able to understand how a file system works in distributed system. Also they can study about the design of file system in distributed system, implementation and various trends in distributed operating system.

CO5: Detailed case study about AMOEBA.

3MCS5: Theory of Computation

By the completion of this course the student will be able to

CO1: Understand various computational languages with the study about trees, Graphs, Strings and alphabets. Understand concept Finite Automata the €-moves.

CO2-: Understand various types of Finite automata and Application. Set theory and regular expression is also studied with the concept to grammar.

CO3: Take a glance on like Chomsky Normal Forms and Greenback Normal Forms. The concept of context free grammar and Context Free Language with Push-Down Automata is also studied.

CO4: Here we have detailed study about the Concept of Turing Machine with its definition, model and design.

CO5-Students can study about the Chomsky Hierarchy of languages.

CO6-Students will able to understand what recursive function theory is and Universal Turing Machine concept.

MSc II (Semester IV)

4MSC1: Artificial Intelligence and Expert System

After completion of this course Student will able to

CO1: Understand the Prolog programme and Learn about Interactive programming.

CO2: Understand different types of AI technique Learn about problem characteristics in depth.

CO3: Learn in depth Basic problem solving methods and Understand algorithms.

CO4: Understand games playing techniques in depth and Learn about programming.

CO5: Understand predicate logic and representation of Knowledge in depth.

CO6: Learn about Natural Language Understanding and Understand artificial neural networks.

4MSC2: Design and Analysis of Algorithms

After completion of this course Student will able to

CO1: Understand Structure program and Learn about Divide and conquer Methods.

CO2: Understand Greedy Methods and effectively learn the nature of the multistage graph.

CO3: Understand and Learn about Basic search and Traversal Techniques.

CO4: Understand Branch and bound and Learn about modular arithmetic.

CO5: Learn and Understand Lower bound Theory and techniques for algebraic.

CO6: Understand and Learn about NP-Hard and NP-Complete problem.

4MSC3: Network Security.

After completion of this course Student will able to

CO1: Learn Terminology and Networking Security.

CO2: Understand and learn about in depth different types of Cryptography.

CO3: Understand the concept of the Authentication and learns about Integrity and Encryption and decryption techniques.

CO4: Learn in depth Cryptographic Algorithms.

CO5: E-mail Security and learn about Keys and Security Services.

CO6: Understand The Firewall Techniques and different Types of The Web Security problems.

4MSC 14: Mobile Communications

After completion of this course Student will able to

CO1: Understand mobile communication and Learn about Cellular system.

CO2: Access Control and Telecommunication system.

CO3: Understand Satellite System and different types of Broadcast Systems.

CO4: Learn about wireless LAN and understand Bluetooth.

CO5: Understand Network Layers and TCP/IP Networks.

CO 6: Understand Mobility and Learn about Word wide Web in depth.

4MSC 15: Digital Image Processing

After completion of this course Student will able to

CO1: Understand Origins and Learn about Image processing system and Digital Image.

CO2: Understand Basic Gray Level and learn about in depth Arithmetic/Logic operation.

CO3: Understand Image Enhancement and learn about Domains and Concept of Filter.

CO4: Image Restoration and Learn about in depth Geometric Transformation.

CO5: Understand Color Models and concept of the Morphological Image.

CO6: Understand Image Segmentation and Learn about in depth Local and global processing Techniques.

4MCS 16: Software Testing

After completion of this course Student will able to

CO1: Understand how software can be tested before its installation. The study of testing approach and steps in outline approach has been studied.

CO2: Understand and learn how the test cases can be created with taking an overview on how documentation shortcuts can be done
CO3: Students will able to do study able the creation of decision tables, application with complex data. Also here they can able to study about the testing of Object oriented software.
CO4: Students will able to understand how a web application can be test before its implementation.
CO5: The techniques of reducing the no. of test cases can be studied here. The various steps have been studied here.
CO6: Students will able to do study about how quality software can be created. The detailed study of the factors regarding to a creation of quality software has been studied.

M.A. (Geography)

Programme specific outcomes.

PSO 1 – Study Geography with an aspect to developme student interest for Geography as a subject of study.
PSO2 - Understand and study the geographical aspect
PSO 3- Study principles of Geomorphology.
PSO 4- Study oceanography and climatology
PSO 5 – Understand Regional planning and Development.
PSO 6- Prepare student for various competitive examination.
POS7 – Study the History of Geographical thought.
POS 8- Understand population and Urban geography

Course outcome :

Upon successful completion of the course, student will be able to.
CO1 :- Understand the Nature , meanings , scope of Geomorphology.
CO2 :- Explain the origin of the eart.
CO3 :- Describe Exogenic process es
CO4 :-study Geomorphic processes and resulting land forms like Glacial,fluvial, Aeolian coastaland karst topography
CO5:- Explain application of Geomorphological knowledge in Human life

Course- Oceanography

CO1: - Describe nature and scope of Oceanography .
CO2:- Explain physical and chemical property of see water
CO3 :-.Understand marine biological environment.
CO4:- Describe marine deposits
CO5 :- Understand Human impact on marine environment

Course:- Regional planning and Development

CO1:- Introduce Region
CO2:- Understand meaning, aims and objective of Regional planning
CO3:- Explain models of economic growth.

CO4:- Describe regional dispartities in india
CO5 :- Understand Salient features of Indian five year plans.

Course :-Principles of Climatology

CO1:- Explain nature and scope of climatology.
CO2:-understand Isolation and Heat balance of the earth.
CO3 :-Understand atmospheric pressure and wind.
CO4 :-understand Air masses.
CO5:- know about the climatic classification

Course:- Biogeography.

CO1:- Explain the nature ,scope and development of Biogeography.
CO2:- Know Biogeographic processes.
CO3:- Understand Plant geography
CO4- Explain the Zoogeography
CO5:- Understand the Palaeobotanical and palaeo climatological records of environmental change in india.

Course:- Geography of Tourism

CO1:- Explain the nature, scope of Geography of Tourism
CO2:- Explain impact of Tourism.
CO3:- Understand Tourism planning and development
CO4- Know about Indian Tourism industry
CO5:- Understand the role of foreign capital in the development of Tourism industry.

Course:- History of Geographical Thought

CO1:- know the contribution of Greek and Roman Geographers.
CO2:- Understand the founders of modern Geographical thoughts
CO3:- Understand Dichotomy and Dualism.
CO4- Know about conceptualdevelopment.
CO5:- Understand the modern approaches of Geography.

Course:- Population Geography

CO1:- Explain the nature ,scope of population Geography .
CO2:- Explain growth,distribution and density of world population.
CO3:-Know the components of population change.
CO4- Understand population composition.
CO5:- Know the composition of population in india.

Course:- Urban Geography

CO1:- Explain the nature ,scope of uraban Geography .
CO2:- Understand urban functions.
CO3:-Know the urban morphology.
CO4- Understand the concept of city region.
CO5:- Know the urban hierarchie sand central place concepts.

Course:- Agricultural Geography

CO1:- Explain the definition nature, scope of ageicultural Geography .
CO2:- Explain determinants of agricultural pattern
CO3:-Know the agricultural regionalization
CO4- Understand agricultural land use models
CO5:- Know the agricultural in india

Course:- Economic Geography

CO1:- Explain the definition nature, scope of economic Geography .
CO2:- know the factors of location of economic activity.
CO3:-Understand the importance of marketing.
CO4- Describe the factors associated with the development of transport system.
CO5:- Understand the economic development of india.

Course:- Environmental Geography

CO1:- Explain the nature, scope and importance of environmental Geography .
CO2:- Understand the concept of ecosystem.
CO3:-Know the major ecosystems of the worlds.
CO4- Know the environmental pollution.
CO5:- Understand the environmental legislation.

M.Com.

Programme Outcome

PO1: To build conceptual foundation and application skills in the areas of Accountancy, Finance, Marketing, computer, Co-Operation, Corporate Tax, Management, research and professional education.
PO2: To sharpen the students analytical and decision making skills.
PO3: To provide the students with a unique ability to manage accounts, people and organizations across the world with completion of M.Com Degree.
PO4: To build life skills through value based education and service oriented programs.
PO5: To provide the students a competitive edge in the job market by equipping them with financial and management accounting techniques covering the technical areas that accountants are required to master. To providing practical knowledge with the help of assigning project on various aspects of the market such as marketing, human resource, production technique, financial etc.

Managerial Economics

Programme Specific Outcomes

PSO1: knowledge about the difference between Traditional Economics and Managerial Economics to specific analyzing actual business situations and solve problems. Apply the concept of opportunity cost
PSO2: analyzing theory of demand and related aspect such as elasticity of demand, consumer choice in various situation to take proper decision in actual business situation.
PSO3: Know and understand production technique and various cost incurred for ex. Average cost , marginal cost , total cost etc. which very important for taking production decision.

PSO4:know about various market situations for taking decision about determination of prices in particular market situation.
PSO5: keep in touch with knowledge about business cycle ; Inflation & deflation , recession & boom .

Advanced Financial and Cost Accounting

Programme Specific Outcomes

PSO1: Introduction to the real/ practical way of Accountancy.
PSO2: know about valuation of share and goodwill in practical financial accounting.
PSO3: Trying to bring out a efficient Financial Manager.
PSO4: Students should be able to find out the profitability of the business, cost efficiency
PSO5: Explain the basic nature of a joint stock company as a form of business organisation and the various kinds of companies based on liability of their members
PSO6: Describe the procedure of Amalgamation and absorption of a company; explain the accounting treatment to related issues.
PSO7: Providing knowledge about various type cost for ex. Standard cost, marginal cost, operating cost, historical cost.

Services marketing and customer relationship management

Programme Specific Outcomes

PSO1: To acquaint students with basic issues in services marketing and customer relationship management
PSO2: Understand various types of services industries and marketing of these industrial products. the nature of the software development process, including the need to provide appropriate documentation
PSO3: Understand the services marketing applications such as marketing of financial, Hospital , Tourism, Educational Institutions.
PSO4: Know about meaning, importance, scope and reasons customer relationship management.
PSO5: understand about formulation and implementation of customer relationship management.

Banking And Insurance services

Programme Specific Outcomes

PSO1: Review the Indian Banking system and Structure of commercial Bank. Process of credit creation , Nationalisation , Priority sectors lending . meaning of N.P.A. and its impact on bank and economy.
PSO2: Critically examine the general functions of R.B.I., S.B.I., R.R.Bs and Co-Operative banks.
PS03: Introduction of Insurance, General Principles of Insurance and Privaisation of Insurance.
PS04: Know about various types of Insurance such as Life, Fire, Marine , Crop, Livestock, Motor, Personal, Accident etc.
PS05: Provide knowledge Legislations of life and General Insurance and working of various Non-Banking Financial Institution.

Accounting for Managerial Decision

Programme Specific Outcomes

PSO1:Introduction of Management Accounting as a tool of management. Importance of management accounting for Managerial decision and role and responsibility of Management Accountant.

PS02: Analyzed and Interprete financial Statement by recognize Fund Flow Statement, Cash Flow Statement.
PS03: Understand various types of budget which are essential for managerial decision for ex. Functional Budget, Master Budget, Flexible Budget etc. and also understand about Budgetary control.

Computer Application in Business

Programme Specific Outcomes

PSO1: The objective of this course is to provide an understanding to computers, computer operating system , and application of relevant softwares in managerial decision making.
PSO2: Technical knowledge about modern information technology like LAN, WAN, E-mail, WWW and internet browsing.
PSO3: Technical use of MS-Word in business Data processing .
PSO4:Use of MS-Excel for creating using and maintaining numerical data in business.
PSO5: introduction and use of C language and performing data processing .

Management Concept and Organisational Behaviour

Programme Specific Outcomes

PSO1: To help student understand the conceptual framework of management and organizational behavior
PSO2: Presenting and understanding thoughts of various management experts related to management concepts, tools , theories in development of professional management.
PSO3: Considering various functions of management.
PSO4: Introduction about the concept of Individual, Group and organizational behavior.
PSO5:Understanding the importance of Organizational change and Organizational diagnosis.

Strategic Management

Programme Specific Outcomes

PSO1: To enhance decision making abilities of students in situation of uncertainty in dynamic business environment.
PSO2: Understanding the concept of strategy and various approaches to strategic decision making.
PSO3: Understanding the concept of business environment and its components. SWOT analysis.
PSO4:Providing knowledge about various Strategy choices such as Modernization , Diversification, Integration, Merger, Take over, Disinvestment and Liquidation .
PSO5: Understanding the concept of formulation of strategy and implementation of strategy.

Statistical Analysis

Programme Specific Outcomes

PSO1: The objective of this course is to make the student learn the application of statistical tools and techniques for decision making.
PSO2: With the help this subject students are aware about testimonial study in critical variables of subjects.

Essentials of E-Commerce

Programme Specific Outcomes

PSO1: Analyzing the impact of e-commerce on business models and strategy
PSO2: Recognize and discuss global E-commerce issues

PSO3: Assess electronic payment systems
PSO4: Growth in entrepreneurship skill of the students
PSO5: The objective of this course is enable students to gain knowledge about E-Commerce and its various component

Research Methodology

Programme Specific Outcomes

PSO1: This course aims at making students conversant with the basic principles and theoretic concepts of the research and guide them in their applications, so the students will be able to write project report for course
PSO2: Recognise the student about process of research i.e. Formulation of Hypothesis, Data collection sources, analyzing and interpretation of data which are required for assessing particular situation.
PSO3: To enable students learn the process, tools and techniques of marketing research.

Corporate Tax Planning and Management

Programme Specific Outcomes

PSO1: This course aims at making students conversant with the corporate assessment, concept of Corporate Tax Planning and Indian Tax Laws , as also their implications for Corporate Management.
PSO2: Identify Tax liability ,Income exemption from Income Tax for Companies. Describe various deduction from income in computation of total income of company.
PSO3: Introduction to Tax Management. Analysis of concept of tax planning , tax avoidance and tax evasions.
PSO4: Demonstrate Tax planning for new Business ,Tax Planning relating to capital structure decision, dividend policy, bonus shares.
PSO5: Demonstrate Special Tax Provisions viz. Free Trade Zone , Infrastructure sector, Backward Areas , Tax incentives for exporters.

Project Report

Programme Specific Outcomes

PSO1: The objective of this course is to provide an understanding to the field work and practical proficiency the students should acquire.
PSO2: Increasing students ability to analyze actual market situation by market survey , Marketing research.
PSO3: In A project report, it is expected to present scientific and systematic presentation of data and information related to the subject of research study.
PSO4: Detail information about the business units or organization working under any commercial activity.
PSO5: Comparative study of two different business units or organization working under any commercial activity.
PSO6: Tracing the problem of any business units or organization working under any commercial activity and recommendation thereon.
PSO7:To recommend any new form of business units or organization of any commercial activity.

Co-Operative Management

Programme Specific Outcomes

PSO1:To acquaint student with the concept , meaning of Co-Operation. Providing introduction about principles of co-operation.

PSO2: Study about development of management thought in co-operative management.

PSO3: introduction about management structure of co- operative society i.e. selection of member, responsibilities of member, duties, responsibilities, authorities of secretary,BOD

Advertising And Sales Management

Programme Specific Outcomes

PSO1:To acquaint student with the theory and practice and advertising as well as management of a firm's sales operation

PSO2: Understanding effect of advertising i.e. Economic and Social.

PSO3: Study about various advertising medias i.e, Print media, Broadcasting media , Internet media. Selection of media.

PSO4: Identify about concept , objective and sales management for increasing the ability of student.

International Marketing

Programme Specific Outcomes

PSO1: To acquaint student with the approach of international marketing , complexities therein, strategies about entry in international market.

PSO2: Increasing awareness about environment at international market level and their impact on international marketing decision.

PSO3: Know about various decisions related to product and pricing decision at international level.

PSO4: Know about promotional and distribution decision in international marketing

M.A. English

Programme Specific Outcomes

PSO1: Make students proficient in English Language to improve their employability.

PSO2: To make students masters in their specific subject area.

PSO3: To develop a critical understanding through application of critical theories to the text.

PSO4: To develop an appreciation of world literatures and also to expose them to world cultures through their literatures.

PSO5: Help them retain, preserve and appreciate their unique cultural identity in view of world culture.

PSO6: To help the students to trace the origin of the word and draw connections to the other languages and their contribution in development of the society.

PSO7: To develop research aptitude.

PSO8: To make them efficient in English language and literature teaching

PSO9: Help them understand the development of structure of modern English language.

Course Outcomes

After the successful completion of the course student is expected to:

CO1: Critically analyse texts through application of different Critical theories.

CO2: Develop appreciation of different forms of literature through an independent in-depth analysis of poetry, drama, fiction & prose.

CO3: Study classical background and influence in shaping the consecutive literature & how individual is shaped by ancestral influences.

CO4: Trace the development of English Language & Literature and learn its impact on society and how society impacts it.

CO5: Acquire language communication and writing skills.

CO6: Help promote native literature through translations in English.

CO7: Become better human being through greater human exposure to literature and hence a greater understanding of human life.

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