

ARTS & COMMERCE COLLEGE, WARVAT BAKAL

BA PROGRAM OUTCOMES (POs)

After the completion of BA program the students are able to:

- PO1.** Acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible enough.
- PO2.** Acquaint with the social, economic, historical, geographical, political, ideological and philosophical tradition and thinking.
- PO3.** Communicate with the world in a better and meaningful way.
- PO4.** To acquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.
- PO5.** Provide the base to be the responsible citizen.

BA PROGRAM SPECIFIC OUTCOMES (PSOs)

B.A. (English Compulsory)

A student of B.A. studying English as a compulsory language is expected to acquire:

- PSO1.** Basic knowledge of English as Language.
- PSO2.** An ability to understand Literature.
- PSO3.** Basic knowledge of English Grammar.
- PSO4.** An ability to appreciate literature with critical thinking.
- PSO5.** An understanding of relationship between literature and real life.

B.A. (Marathi Compulsory)

A student of B.A. studying Marathi as a compulsory and optional subject is expected to:

- PSO1.** Create an interest in literature.
- PSO2.** Avail the job opportunities in translation, transformation and media.
- PSO3.** Develop language.
- PSO4.** Increase the critical attitude about literary studies.
- PSO5.** Imbue the literary research attitude.

B.A. (History)

A student of B.A. studying History as an optional subject is expected to:

- PSO1.** Evaluate historical information from multiple Sources.
- PSO2.** Distinguish difference between primary sources and secondary sources.
- PSO3.** Develop their knowledge about Indian Ancient Culture, Mughal Art and Architecture.
- PSO4.** Identify Modern Indian Map and World map.
- PSO5.** Describe rise of modern world.

B.A. (Political Science)

A student of B.A. studying Political as an optional subject is expected to:

- PSO1.** To Understand the basic structure of Indian political system
- PSO2.** To Understand the preamble of Indian constitution
- PSO3.** To Understand the importance of voting power
- PSO4.** To Inculcate interest in political field
- PSO5.** To create the leadership qualities in students

B.A. (Economics)

A student of B.A. studying Economics as an optional subject is expected to:

- PSO1.** Understand and analyze markets, consumer behavior.
PSO2. Become aware about Indian financial system, banking system, public finance and foreign trade.
PSO3. Gain knowledge of monetary policy, fiscal policy, fiscal deficit and budgetary deficit etc. concepts.
PSO4. Equip with the knowledge of theoretical, empirical and policy issues relating to the Indian economy.
PSO5. Develop the knowledge and application skills about theories of economic growth and issues of economic planning.

B.A. (Marathi Literature)

A student of B.A. studying Economics as an optional subject is expected to:

- PSO 1.** Understand the social customs and codes through Marathi literature.
PSO2. Be aware of impact of various factors on Marathi literature.
PSO3. Develop their critical and creative skills.
PSO4. Understand the moral values reflected in Marathi literature.
PSO5. Go for higher studies and post graduate courses in Marathi language.

BA COURSE OUTCOMES (COs)

B.A. Part I (English Compulsory)	B.A. Part II (English Compulsory)	B.A. Part III (English Compulsory)
<p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To understand the use of parts of speech and tenses 2) To write personal, business letters. 3) To write Curriculum Vitae properly. 4) To construct sentences of English Language. 5) To able to use verb forms properly. 6) To construct story Building. 7) To compose Fax and Email. 8) To write notices, Agendas and Minutes. 	<p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To construct and use of simple, complex and compound sentences. 2) To employ interpersonal conversations. 3) To employ casual conversations. 	<p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To develop reading skills. 2) To develop speaking skills. 3) To develop listening skills. 4) To develop writing skills.
<p>B.A. Part I (History)</p> <p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To understand the genesis of history and the development of history writing in India. 2) To understand the sources of ancient India and the Civilizations like Indus and Aryan. 3) To understand the history of Ancient India. 4) To understand the roles of Mourya, Gupta and Vardhana Empires in India. 	<p>B.A. Part II (History)</p> <p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To understand the formation, expansion and consolidation of <i>Sultanet Shahi</i> and Mughal Empire. 2) To understand the formation, expansion and consolidation of British Empire in India under East India Company. 3) To understand the consequences of national Movement in India. 	<p>B.A. Part III (History)</p> <p>By completion of this course students will be able –</p> <ol style="list-style-type: none"> 1) To understand the changes of Europe after the French Revolution and Political changes in Asian and African Countries. 2) To understand the causes of I and II World War. 3) To understand the formation of UNO to maintain peace around the world. 4) To understand the conflict of democracy and Socialism after Second World War. 5) To understand the emergence of Cold War. 6) To understand the World History.
<p>B.A. Part I (Political Science)</p> <p>By completion of this course students will be able-</p> <ol style="list-style-type: none"> 1) To understand the rights of the President and the Governors 2) To understand the principles of the different Political Parties. 	<p>B.A. Part II (Political Science)</p> <p>By completion of this course students will be able-</p> <ol style="list-style-type: none"> 1) To understand the administration and laws of England, America and China. 	<p>B.A. Part III (Political Science)</p> <p>By completion of this course students will be able-</p> <ol style="list-style-type: none"> 1) To understand Ways to make the democracy successful. 2) To understand Western and Indian Political thoughts.

<p>3) To understand the duties of Prime ministers and Cabinet. 4) To understand the function of opposite Parties. 5) To understand the duties and rights of the parliament and Supreme Court.</p>	<p>2) To understand the Presidential and Parliamentary Democracy. 3) To understand the political happening of SAARC and Other countries. 4) To understand the structure and function of united nation Organizations (UNO).</p>	<p>3) To understand the concept of state of Mahatma Gandhi and Aristotle 4) To understand the nationalist thought of Vivekananda. 5) To understand the principles of democracy of Bejhot, Abraham Lincoln and Dr. B.R.Ambedkar.</p>
<p>B.A. Part I (Economics) By completing this course, students will be able 1) To get the knowledge of the basic principles of Economics. 2) To get the knowledge of the basic concepts in Economics. 3) To get the knowledge of the demand supply and market structure. 4) To learn the nature of Maharashtra Economy.</p>	<p>B.A. Part II (Economics) By completing this course, students will be able 1) To know the basic concept and theories of Macro Economics. 2) To learn the structure of Indian Banking System. 3) To get the information of the role of RBI in Indian economy. 4) To learn the information of the role IMF, World Bank, WTO in Indian Economy. 4) To get the knowledge of the employment and inflation theories.</p>	<p>B.A. Part III (Economics) By completing this course, students will be able:- 1) To learn the basic concept and theories in Demography Science. 2) To get the knowledge of Indian Population issues. 3) To learn the structure of Indian Economy. 4) To get the knowledge of the basic economic problems and their solution in Indian Economy. 5) To learn the concept of Environment.</p>

B.Com. PROGRAM OUTCOMES (POs)

After the completion of B. Com. program the students are able to:

- PO1.** Acquire basic and fundamental knowledge and skills for doing business and commercial activities of their choice.
- PO2.** To develop Numerical ability.
- PO3.** Acquire the accounting knowledge, management principles, retail trading, banking and insurance transactions, business economics and financial management.
- PO4.** Acquire knowledge in the field of management accounting, corporate accounting, statistical and mathematical techniques and knowledge relating to corporate law and business laws.
- PO5.** Do a business of their choice or choosing a profession or can become employees having basic knowledge and skill required for such activities.

B.Com. PROGRAM SPECIFIC OUTCOMES (PSOs)

- PSO 1:** The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
- PSO 2:** By goodness of the preparation they can turn into a Manager, Accountant, Management Accountant, Cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents and Government employments and so on.
- PSO 3:** Students will prove themselves in different professional exams like C.A., C S, CMA, MPSC, UPSC as well as other courses.
- PSO 4:** The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
- PSO 5:** Students will gain thorough systematic and subject skills within various disciplines of

finance, auditing and taxation, accounting, management, communication, computer.

PSO 6: Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator as well as other financial supporting services.

PSO 7: Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.

PSO 8: Students will be able to do their higher education and can make research in the field of finance and commerce.

B.Com. COURSE OUTCOMES (COs)

SEM I COMPUTER FUNDAMENTAL AND OPERATING SYSTEM –I

To impart basic knowledge about Computer, Word Processing, Fundamentals of Computer, Computer Organization, Memory organization of Computer, Concept, Types, Input / Output Devices, Word Processing Formatting Document.

SEM I PRINCIPLES OF ECONOMICS

To impart Economic Laws , Nature, Characteristics, Limitation & Importance, Utility Approach, Elasticity of Demand, Production Function, Cost and Revenue.

SEM I ADVANCED ACCOUNTANCY

To impart basic Accounting Knowledge as applicable to business, Accounting Transactions, Rectification of errors, Sub-sidiary Book, Cash Book, Depreciation Methods, Bank Reconciliation statement.

SEM I PRINCIPLES OF BUSINESS ORGANIZATION

To impart Commerce and Industry, Business, Merger and Acquisition, New Enterprises, Trade In India.

SEM II COMPUTER FUNDAMENTAL AND OPERATING SYSTEM –II

To impart basic knowledge about Computer, MS-Word Processing 2007 and MS-PowerPoint 2007, Operating System Basics, Operating System [Advance], Modern communications, Word Processing working with Table and Graphics, PowerPoint Presentation

SEM II BUSINESS ECONOMICS

To impart Business and Managerial Economics, Market Structure, Factors Pricing.

SEM II FINANCIAL ACCOUNTING

To develop conceptual understanding of fundamentals of financial accounting system and to impart skills in accounting for various kinds of business transaction, Accounts of Non-trading Institutions, Special Accounting Areas : Accounts of Co-operative societies, Accounting for Agriculture Farms, Hire purchases & Installment purchase Accounts, Insolvency

SEM - III COMPANY ACCOUNTS

This course enable the students to develop awareness about company account, Issue, forfeiture and Re-issue of Shares, Final Accounts of company, Profit prior to Incorporations, Amalgamation of Company, Absorption of Company

SEM - III BUSINESS MATHEMATICS

The objective of this course is to enable the students to have such minimum knowledge of Mathematics, Natural Numbers, Integers H.C.F. & L.C.M. , Linear Equation , Percentage, Discount, Commission and Brokerage, Average, Profit and Loss Mathematics of Finance, Simple Interest, Compound Interest, Ratio and Proportion, Ratio and percentage, Concept of proportion, Simple and Compound proportion, Direct and inverse proportion.

SEM-III AUDITING

To impart Meaning of Auditing, Objectives & Advantages, Types of Audit, commencement of business audit, Internal Check system, Audit program, Routine checking and Vouching, Verification and Valuation of Assets and liabilities, Company Auditor, Appointment, Power, duties, Liabilities, Audit of Divisible Profit, Dividend, Audit Report, Types of Report, Audit of Banking, Insurance & Educational Institutions.

SEM-III MONETARY SYSTEM

To impart Barter System of Exchange and its Problems, Definition and Nature of Money, Functions and Importance of Money, Kinds of Money, Price Fluctuations, Money Market and Capital Market.

SEM-III Information Technology & Business Data Processing-I

The objective of this course is to familiarize with basics of Information Technology and use of Spreadsheet Package for Business Data Processing

SEM- IV CORPORATE ACCOUNTING

This course enable the students to develop awareness about corporate accounting.

SEM V COST ACCOUNTING

This course exposes the students to the basic concepts and tools used in Cost Accounting and provide an understanding of the applications of Cost Accounting techniques for determination of cost of production.

SEM V BUSINESS ENVIRONMENT

The contents herein intend to develop the ability to understand and interpret sector wise business environment of India.

SEM V BUSINESS REGULATORY FRAMEWORK

To help the students to understand the concept of business Laws and it's applications in business regulation.

SEM V PROCESS BUSINESS I

The course aims to educate the students with the different factors which effect business. This course aims to develop ability to understand and scan business environment as well as process in order to analyses the opportunities and take decisions under the uncertainty.

SEM V CO-OPERATIVE BUSINESS I

To grasp the historical development of Co-operatives in India. To Understand and appreciate theoretical development of the co-operative enterprises in India. To appreciate role and relevance of co-operatives in the present economic environment. To develop understanding and insight in co-operative development.

SEM V INTERNET WORLD WIDE WEB I

The course aims at familiarizing the students with the basic concepts and ground rules of Internet and the various services it offers including designing of website and how to access information from depositories in the world wide web.

SEM V E-COMMERCE

The objective of the course is to familiarize the students with the essentials of internet based e-commerce and to make them comprehend its practical aspects as well as growth potential of

<p>Account of and Individuals, Laws of insolvency- Provisions for preferential creditors, Meaning of insolvency, Procedure of insolvency, Problems on Insolvency Accounts.</p> <p>SEM II PRINCIPLES OF BUSINESS MANAGEMENT</p> <p>To impart Management Concept, Planning, Organizing, Directing, Controlling.</p>	<p>SEM IV BUSINESS STATISTICS</p> <p>The objective of this course is to enable the students to have such minimum knowledge of Statistics.</p> <p>SEM IV INCOME TAX</p> <p>To know Basic concepts, Computation of Income, Income from other sources, Income Tax Authorities and Return of income.</p> <p>SEM-IV Information Technology & Business Data Processing-II</p> <p>The objective of this course is to familiarize with basics of Database, Database management System and use of Accounting Package for Business Data Processing.</p>	<p>ecommerce in India.</p> <p>SEM VI MANAGEMENT ACCOUNTING</p> <p>This course exposes the students to the basic concepts and tools used in Management Accounting. To provide an understanding of the applications of Management Accounting techniques for management decision making.</p> <p>SEM VI ECONOMICS OF DEVELOPMENT</p> <p>To provide an insight into various growth models and their applicability in present scenario.</p> <p>SEM VI COMPANY LAW</p> <p>The course exposes to Incorporation of company, Share capital of company, Securities Market, Company Secretary and Company meetings.</p> <p>SEM VI INTERNET AND WORLD WIDE WEB II</p> <p>The course aims at familiarizing the students with the basic concepts and ground rules of Internet and the various services it offers including designing of website and how to access information from depositories in the world wide web.</p> <p>SEM VI E-COMMERCE II</p> <p>The objective of the course is to acquaint the students with the internet- based e-commerce business models, internet marketing and e-governance.</p>
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B.Sc. PROGRAM OUTCOMES (POs)

After the completion of B. Sc. program the students are able to:

- PO1.** Develop scientific temperament and attitude.
- PO2.** Inculcate the qualities like observation, precision, analytical mind, logical thinking, clarity of thought and expression, systematic approach.
- PO3.** Handle the unexpected situation by critically analyzing the problem.
- PO4.** Extract information, formulate and solve problems in a systematic and logical manner.
- PO5.** Perform the jobs in diverse fields such as science, engineering, industries, survey, education, banking, development-planning, self-business etc. efficiently.

B.Sc. PROGRAM SPECIFIC OUTCOMES (PSOs)

B.Sc. (Chemistry)

A student of B.Sc. studying Chemistry is expected to:

- PSO1:** Acquire basic knowledge of chemistry.
- PSO2:** Gain knowledge of various principles governing chemical reactions which are important in industry and daily life.
- PSO3:** Understand fundamental and basic concepts of organic, in-organic, physical and analytical chemistry.
- PSO4:** Acquire knowledge of mechanistic approach of various organic and inorganic reactions.
- PSO5:** Be competent to apply practical aspects of chemistry by means of qualitative, quantitative and instrumental methods.

B.Sc. (Botany)

A student of B.Sc. studying Botany is expected to:

- PSO1:** Be able to develop knowledge about Characteristics of bacteria, viruses, and fungi.
- PSO2:** Be able to identify the major groups of organisms with an emphasis on plants.
- PSO3:** Be able to compare and contrast the characteristics of plants, algae, fungi, Bryophyte
- PSO4:** Be able to explain how organisms function at different levels.
- PSO5:** Be able to explicate the ecological interconnectedness of life on earth.

B.Sc. (Zoology)

A student of B.Sc. studying Zoology is expected to:

- PSO1:** Acquire knowledge about various Phyla in animal kingdom.
- PSO2:** Gain knowledge of life and diversity of nonchordata and chordata. **PSO3:** Acquire knowledge of basics of cell and developmental biology.
- PSO4:** Understand the concepts in animal physiology and animal ecology.
- PSO5:** Acquire knowledge of an essence of molecular biology and biotechnology

B.Sc. (Physics)

A student of B.Sc. studying Physics is expected to:

- PSO1:** To acquire core knowledge of major topics of physics.
- PSO2:** Gain competence in communication skills for communicating physics phenomenon and basic principles.
- PSO3:** Gain knowledge of the ways and methods to design and conduct an experiment demonstrating various physics concepts.
- PSO4:** To realize impact of physics and science on overall development of the society and develop an understanding of the impact of physics and science on society.
- PSO5:** To apply the conceptual understanding of the physics to general real world situations.

B.Sc. (Computer Science)

A student of B.Sc. studying Computer Science is expected to:

- PSO1:** Acquire fundamentals of Computer Science, Component of Computer, generation of computer, types of computer.
- PSO2:** Learn web page design using HTML.
- PSO3:** Learn programming languages such as C, C++, vb to design small application programmes.
- PSO4:** Learn various database, design of database, Structure query language.
- PSO5:** Learn concepts of programming in PL/SQL.

B.Sc. COURSE OUTCOMES (COs)

<p>SEM I PHYSICS</p> <ol style="list-style-type: none"> 1. Able to understand the terminology used in Classical Mechanics, Planetary motion, Gravitational laws, Simple harmonic motion, wave motion, Elasticity & Kinematics of moving fluids. 2. Ability to employ conceptual understanding to make predictions, and then approach the problem mathematically. 3. Ability to understand the important connections between theory and experiment. <p>SEM I CHEMISTRY</p> <ol style="list-style-type: none"> 1) Ability to understand periodicity in properties of main group elements and ionic bonding 2) Ability to understand electronic displacement effects, reactive intermediates and chemistry of aliphatic and aromatic hydrocarbons 	<p>SEM III PHYSICS</p> <ol style="list-style-type: none"> 1. Knowledge of the concepts in Mathematical Physics and Electrostatics, Magnetostatics and Electrodynamics (Maxwell’s Equation, Solid State Electronics Devices- Physics of semiconductors, Electronic devices-like: BJT, FET, Op-Amp etc., Special Theory of Relativity, Atmosphere and Geophysics. 2. Understanding importance of these concepts and phenomena in real life practices. <p>SEM III CHEMISTRY</p> <p>Knowledge of -</p> <ol style="list-style-type: none"> 1) Postulates and application of MO theorist application of MO theory for simple homonuclear and hetero-nuclear diatomic molecules. 2) Metallic bonding and VSEPR theory for molecular structure. 3) Theory of volumetric and 	<p>SEM V PHYSICS</p> <ol style="list-style-type: none"> 1. Knowledge of the basics of the Origin of Quantum Mechanics, Development of Schrödinger’s equation, Atomic and Molecular Spectroscopy, Nuclear Physics, introduction to Hybrid parameters and Amplifiers, feedback and oscillators. 2. Understanding importance of these concepts and connection between theory & practical and applications to practical devices & systems. <p>SEM V CHEMISTRY</p> <p>Knowledge of -</p> <ol style="list-style-type: none"> 1) Various theories of bonding for coordination compounds like Werners, VBT, CFT 2) Isoemrism and electronic spectra of complexes. 3) Chemistry of heterocyclic and organometallic compounds. 4) Chemistry of dyes, drugs and pesticides.
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<p>3) Knowledge of the fundamentals of thermodynamics and Kinetic theory of gases.</p> <p>4) Knowledge of phase rules and its application to one component system.</p> <p>SEM I BOTANY After completion of this Course, the student are able to develop the following outcomes:</p> <ol style="list-style-type: none"> 1. Students are expected to familiarize with the morphological and systematic knowledge about different plant groups including Algae, fungi, Bryophyte and Pteridophyte etc. They are be able to make use of this knowledge for detailed study in other disciplines. 2. The study are able to know about different algal and fungal groups around them, their symbiotic association, and economic importance. 3. Students are able to distinguish between different Taxa of Mastigomycotina, Ascomycota, Basidiomycota and Deuteromycotina. They will be become familiar with edible and poisonous fungi and their association with trees. 4. Understanding the role of microbes in different field. 5. Industry, Food and Agriculture etc. 6. The students are able to understand the vast diversity of bacteria and Viruses in relation to Structure, nutrition and Reproduction <p>SEM I ZOOLOGY Knowledge of the basic knowledge of Animal Kingdom through its classification and evolution of life. They will also learn various systems organized through a well-controlled and developed mechanism.</p> <p>SEM I COMPUTER SCIENCE Knowledge of the fundamentals of Computer such as Block Diagram of Computer, I/O devices, Memory and its types and basics of OS, Network, types of Network, Network Topology, Internet and fundamentals of programming languages, types of languages, executable statements. They are able to write the algorithms, draw flowcharts and develop programs in c.</p> <p>SEM II PHYSICS</p> <ol style="list-style-type: none"> 1. Knowledge of the concepts in Kinetic theory of Gases, Thermodynamics, Liquefaction of Gases, Motion of Charged Particles in Electric and Magnetic fields, Electrical Network Theorems & ac current. 2. Understanding importance of these topics in real world. <p>SEM II CHEMISTRY</p>	<p>gravimetric quantitative analysis.</p> <p>4) Organic chemistry of aldehydes, ketones, and carboxylic acids.</p> <p>5) Stereochemistry of organic compounds especially optical, geometrical and conformational isomerism.</p> <p>6) Thermodynamic equilibrium with reference to Gibbs and Helmholtz free energy.</p> <p>7) Phase equilibria for partially miscible and immiscible liquids</p> <p>8) Surface tension, Viscosity and electrolytic conductance measurements and application.</p> <p>SEM III BOTANY</p> <ol style="list-style-type: none"> 1. Knowledge of the history of Plant Systematics and its role in classification. They are able to make use of this knowledge for the identification and grouping of different plants based on the anatomy. 2. Knowledge of classification on the basis of anatomical difference into different groups. 3. Knowledge of the basic anatomical concepts of Primary Structure of Root, Stem, Leaf and Flower. They will be able to discuss the idea of secondary growth. 4. Ability to understand the Tissues Arrangement in Root, Stem, Leaf and Secondary Plant Body. 5. Knowledge about formation of male and Female gametes, their fusion, development of embryo, formation of seed and endosperm. <p>SEM III ZOOLOGY Life And Diversity Of Chordata And Concept. In addition to this, To learn evolution of life from a unicellular life to a multicellular organism.</p> <p>SEM IV PHYSICS</p> <ol style="list-style-type: none"> 1. Knowledge of the concepts in Geometrical optics and interference, Diffraction, Polarization. 2. Knowledge of conceptual ideas of Laser, fiber optics & basics of the Renewable Energy Source. <p>SEM IV CHEMISTRY Knowledge of - 1) Chemistry of d-block and f-block elements.</p> <ol style="list-style-type: none"> 2) Principles involved in extraction of elements and general principles of metallurgy 3) Chemistry of poly-nuclear hydrocarbon, reactive methylene compounds and carbohydrates 4) Chemistry of nitro and amino compounds 5) Colligative properties and Crystal state. <p>SEM IV BOTANY</p>	<p>5) Principles of photochemistry, quantum yield and luminescence.</p> <p>6) Principles of molecular spectroscopy.</p> <p>SEM V BOTANY</p> <ol style="list-style-type: none"> 1. Advance knowledge about plant water relation, physiology, metabolism and ecology. 2. Understanding about the plant response to different stimuli and plant movement. 3. Understanding plant growth mechanism, role of growth hormones in plant development. 4. Knowledge of various factor of environment and their impact on plant growth and development. 5. Understanding the structure and function of ecosystem. <p>SEM V ZOOLOGY Animal Physiology And Economic Zoology. Mechanism of working. They will also learn applied and economic aspects of modern zoology by studying various cultures in the field of agriculture and aquaculture.</p> <p>SEM VI PHYSICS</p> <ol style="list-style-type: none"> 1. Understands the basics of the Statistical Mechanics, MB, BE & FD Statistical distributions, Crystallography, Electrical properties & magnetic properties of the materials, Nanoscience & nanotechnology and Superconductivity. 2. Understanding connection between theory & practical. 3. Competence regarding practical applications of these concepts in real world. <p>SEM VI CHEMISTRY Knowledge of - 1) Kinetic Aspects of Metal Complexes</p> <ol style="list-style-type: none"> 2) Spectrophotometry, Calorimetry and chromatographic analytical methods. 3) Chemistry of metal carbonyls, inorganic polymers and essential elements. 4) UV, IR, NMR and Mass spectroscopy for structure elucidation of organic compounds. 5) Elementary quantum mechanics and Schrodinger wave equation. 6) Electrochemical Cells and principles of nuclear chemistry. <p>SEM VI BOTANY</p> <ol style="list-style-type: none"> 1. Knowledge about genetic material i.e. DNA, RNA etc. 2. Understanding about the recombinant DNA technology, protein synthesis, protein sorting, cloning techniques to construct genomic libraries and a broad view about cloning vector types and strategies.
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<p>Knowledge of - 1) rules of polarizability and concept of covalent bonding. 2) Theories of acids and bases. 3) Chemistry of p-block elements 4) Chemistry of non-aqueous solvents 5) Chemistry of organic compounds conating halogen and oxygen like alkenyl and aryl halides, alcohols, ethers, epoxides and phenol. 6) Physical properties and relation to molecular structure. 7) Fundamentals of chemical kinetics.</p> <p>SEM II BOTANY</p> <p>1. After studying this course students develop better understanding of the Concept of Fossilization. Students will be expected to know about the general characteristics of Gymnosperms and their affinities with Pteridophyte and Angiosperms. 2. Through this course students will get the better opportunity to understand the plants taught in theory, their morphological features through preserved specimens and slides. 3. Students would get the knowledge about all morphological parts of the plant. 4. Students also get knowledge about utilization of plants in spices, timber.</p> <p>SEM II ZOOLOGY</p> <p>Ability to understand basics and fundamentals of life by studying cell, its organelles and their functions. They will also learn preliminary ideas of fertilization and development of life.</p>	<p>1. On successful completion of this course students are able to describe, apply and integrate the basic concepts of Cell Biology Genetics and Biochemistry, Structure and Functions of different Organelles. 2. Understanding the structure, types and aberration of chromosome. 3. Understanding gene interaction and develop skill to solve genetic problem 4. Knowledge about gene mutation, linkage and crossing over etc. 5. Understand different types of enzyme and their mechanism of action. 6. Awareness about Structural and Functional Strategies of Biomolecule like Carbohydrate.</p> <p>SEM IV ZOOLOGY</p> <p>Ability to understand modern and advance developments in the field of genetics; biotic and abiotic factors with their interaction to ecosystem.</p>	<p>3. Knowledge about parameters involved in gene transfer techniques. 4. Ability to understand the different techniques used in Plant Tissue Culture including Plant Micro propagation, Callus and Suspension Culture and their Applications. 5. Understanding about the functioning of various equipment's used in Tissue Culture Work.</p> <p>SEM VI ZOOLOGY</p> <p>Ability to</p> <p>1. Have knowledge about genetic material i.e. DNA, RNA etc. 2. to have an understanding about the recombinant DNA technology, protein synthesis, protein sorting, cloning techniques to construct genomic libraries and a broad view about cloning vector types and strategies. 3. Have knowledge about parameters involved in gene transfer techniques. 4. Know the different techniques used in Animal Tissue Culture and their Applications. 5. Understand the functioning of various equipment's used in Tissue Culture Work.</p>
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