B.V.V. Sangha's

BVVS Akkamahadevi Women's Arts, Science and Commerce College, Bagalkote

Accredited at 'B' Grade by NAAC

AQAR -2023-24

Criterion-II

Teaching- Learning and Evaluation

2.6.1 Programme and Course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

B.A. Programme Specific Outcomes & Course Outcomes

.**Course Outcomes**

Department	:	Economics
Semester	:	B.A.I Sem
Subject Name & Code :		DSC-1.1 Basic Economics (Economic Analysis)

By the end of the course the student will be able to:

1. Identify the facets of an economic problem.
2. Learn basic economic concepts and terms.
3. Explain the operation of a market system;
4. Analyze the production and cost relationships of a business firm;
5. Evaluate the pricing decisions under different market structures; and
6. Use basic cost-benefit calculations as a means of decision making (i.e. thinking like an economist)

Department	:	Economics
Semester	:	B.A.I Sem
Subject Name & Code :		DSC-1.2 Contemporary Indian Economy

At the end of the course the student should be able to:

i. Understand the current problems of Indian Economy
ii. Identify the factors contributing to the recent growth of the Indian economy.
iii. Evaluate impact of LPG policies on economic growth in India
iv. Analyze the sector specific policies adopted for achieving the inspirational goals

Department	:	Economics
Semester	:	B.A.II Sem
Subject Name & Code :		DSC-2.1 Basic Economics-II

At the end of the course the student should be able to:

1. Understand the operation of the overall economic system;
2. Calculate national income and related aggregates
3. Explain the relationship between macroeconomic aggregates;
4. Analyse the nature of business cycles and policies towards controlling them;
5. Evaluate the macroeconomic policies for solving major problems like poverty and unemployment.

Department   :   Economics
Semester   :   B.A.II Sem
Subject Name & Code :   DSC-2.2 Karnataka Economy

At the end of the course the student should be able to:

1. Understand the nature of economic growth and problems of Karnataka state.
2. Explain the process of structural growth in Karnataka economy;
3. Evaluate the policies and programmes undertaken by the Govt. of Karnataka for bringing.
about socio-economic development.

Department   :   Economics
Semester   :   B.A.III Sem
Subject Name & Code :   Micro-Economics

CO 1. Helps the students to understand the functioning of the economy as a whole.
CO 2. Familiarises the students with the basic concepts of macroeconomics and its application.
 CO 3. Analyse fiscal and monetary policy decision to counter the business cycle.
CO 4. Collection and presentation of data on National Income of India using schedule and graphs.

Department   :   Economics
Semester   :   B.A.IV Sem
Subject Name & Code :   DSC- 4.1 Macroeconomics

CO 1. Understanding the theories of national income accounting.
CO 2. Explain the process of consumption and investment functions.
CO 3. Evaluate the concept of multiplier and inflation.

Department   :   Economics
Semester   :   B.AIVsem
SubjectName&Code: DSC-4.2Macroeconomics

CO1.Understand the nature of data and their presentation.
CO2.Calculate descriptive statistics like measures of central tendency and dispersion.
CO3.Apply statistical techniques like correlation and regression in economic analysis.

Department	:	Economics
Semester	:	B.A.V Sem
Subject Name & Code	:	Indian Economy –I (Compulsory)

CO 1. Collecting recent data on poverty in India.
CO 2. Students identifying BPL families in their locations.
CO 3. Collecting the data of unemployment youth in their areas.
CO 4. Students are able to understand meaning and concepts of national income.

Department	:	Economics
Semester	:	B.A.V Sem
Subject Name & Code	:	International Economics

CO 1. Understanding and knowledge about the basic principles of trade in goods and services at the global level.
CO 2. Perceive the importance of balance of payments situation of a country.
CO 3.The students would understand the rationale of recent changes in the export-import policies of India.
CO 4. Developing a record of foreign exchange rates for a week.

Department	:	Economics
Semester	:	B.A.V Sem
Subject Name & Code	:	International Economics

CO 1. Understanding and knowledge about the basic principles of trade in goods and services at the global level.
CO 2. Perceive the importance of balance of payments situation of a country.
CO 3.The students would understand the rationale of recent changes in the export-import policies of India.
CO 4. Developing a record of foreign exchange rates for a week

Department	:	Economics
Semester	:	B.A.VI Sem
Subject Name & Code	:	Public Economics

CO 1. Know what the study of public finance is all about, different roles played by the Government in an economy.
CO 2. Identify various factors affecting the public expenditure.
CO 3. To know about the accrual and cash indicators while measuring the government debt. CO 4. Evaluate the factors which create excess burden of taxation.
CO 5. To examine the different types of budget deficits.

Course Outcomes

Department	:	Women's Study
Semester	:	B.A.I Sem
Subject Name & Code	:	DSC-1: Understanding Gender

 1.To familiarize students with the concepts of sex and gender as used in feminist works and creating awareness on the ways by which gender is constructed.
2. To make students understand the concepts of masculinity and femininity and the need to treat gender as an analytical category.
3. To elaborate on the concepts of patriarchy and male dominance in society and their impact on women's lives.
4. To introduce students to basic concepts in Women and Gender Studies.

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Department	:	Women's Study
Semester	:	B.A.I Sem
Subject Name & Code :		DSC2 Emerging Gender Issues

1. Developing gender sensitivity among students.
2. Enabling them to look into social issues from gender perspectives.
3. Students will develop a feminist perspective in understanding gender issues.
4. It allows students in identifying emerging gender issues in India and Karnataka.

Department	:	Women's Studies
Semester	:	B.A.II Sem
Subject Name & Code :		DSC-3 Mapping Women's Movements

1. Movements are primary agencies of identity formation and social and political change for nations, states, groups, and individuals. The central concern of this paper is to offer a broad outline concerning the nature and growth of women's movements in the modern age, covering a range of issues pertinent to women's emancipation, dignity, and status.
2. The course is structured to briefly review early women's movements and their central concerns to understand those issues that have been resolved (or remain) and to discuss how early movements formed.
3. This course aims to provide a space to update women's concerns through a fresh lens.

Department	:	Women's Studies
Semester	:	B.A.II Sem
Subject Name & Code :		DSC4: Gender, Economy and Work

1. The course aims to introduce students to the role played by women in the economy. It also aims at developing an understanding of how women's lives are impacted due to their economic position in the society
2. The course further aims to acquaint students with the gendered character of inequality and forms of discrimination against women in the market economy and how their contributions are devalued.
3. The course proposes suggested alternatives to ensure women attain equal rights in the field of economic development.

Department	:	Women's Studies
Semester	:	B.A.III Sem
Subject Name & Code :		Feminism

Co1 : To expose the concepts and philosophy of eminent theory
Co2 : To provide a feminist perspective to understand women's issues

Department	:	Women's Studies
Semester	:	B.A.IV Sem
Subject Name & Code :		Women's Movement in India

Co 1: To give knowledge on importance of women's education
Co 2: To understand the impacts of women's education on development of the country Co 3: To take advantages of Govt. programmes for women's Education.

Department	:	Women's Studies
Semester	:	B.A.V Sem
Subject Name & Code :		Women's Health and Nutrition (P-1)

Co 1: To make the students aware of women's health
Co 2: To provide students knowledge on food and nutrition
Co 3: To understand or aware about consequences of Reproductive age.

Department	:	Women's Studies
Semester	:	B.A.VI Sem
Subject Name & Code :		Women's Economy and Development (P-1)

Co 1: understanding the concept of women's work
Co 2: To understanding the concept of women's development Co 3 : To provide knowledge on women's Empowerment
Co 4: To get knowledge about policies and programmes for women's development

Department	:	Women's Studies
Semester	:	B.A.VI Sem
Subject Name & Code :		Women in politics and law (P-2)

Co 1: To provide knowledge on political participation of women
Co 2: To make the students aware of laws related to women
Co 3: To know why is important of representation of women in political process.

B.Sc Course Outcomes.

Department	:	PHYSICS
Semester	:	**B.Sc.III**
Subject Name & Code :		Optical instruments, Laser and Electrodynamics & Physics

 Students are able to learn & understand the following concepts

CO1.   Chromatic Aberration in a lens
CO2.   Cardinal points
CO3.   He-Ne laser (principle and working) CO4. Gauss divergence & Stokes theorem
CO5.   Biot- Savart law
CO6.   Faraday's laws of electromagnetic induction
CO7.   Electromagnetic waves in isotropic non-conducting medium

Department	:	PHYSICS
Semester	:	B.Sc.IV
Subject Name & Code :		Physical optic and Electricity & Physics

 Students are able to learn & understand the following concepts

CO1.   Young's double slit theory and experiment
CO2.   Newton's Ring Experiment & Michelson interferometer
CO3.   Comparison between zone plate & converging lens
CO4.   RP of telescope
CO5.   Double refraction in uni-axial crystal
 CO6.   Q-factor, RMS value, band width
CO7.   Study of CRO(Construction & working)

Department : PHYSICS
Semester : B.Sc.V
Subject Name & Code : Atomic Molecular & Special theory of Relativity & Physics

Students are able to learn & understand the following concepts

CO1. Properties of cathode rays
CO2. Rutherford's alpha scattering experiment
CO3. Coupling schemes, LS & JJ coupling for two electron system
CO4. Classification of molecular spectra
CO5. Experiment study of Raman Effect CO6.Michelson Morely experiment
CO7. Einstein's mass energy relation

Department : PHYSICS
Semester : B.Sc.V
Subject Name & Code : Quantum Mechanics, Nuclear Physics & energy & Physics

Students are able to
CO1. Understand Heisenberg's uncertainty principle, Davisson &Germer Experiment
CO2. Understand & implement Schrodinger time dependent & independent wave equations &its applications
CO3. Understand nuclear matter radius & charge CO4.Solve problems on Binding energy
CO5. Classify different types of quarks
CO6. Explain nuclear shell model on basic of liquid drop model CO7. State the properties of radioactive radiation
CO8. Understand advantages & disadvantages of renewable & non renewable energy source CO9. Discuss the different types of nuclear radiations
CO10. Understand construction & working of nuclear detectors i.e. G.M.counter

Department : PHYSICS
Semester : B.Sc.VI
Subject Name & Code : Statistical Physics & Solid State & Physics

Students are able to
CO1. Explain statistical formulation
CO2. Understand ensemble representation
CO3. Understand the periodic structure of crystal, reciprocal lattice & its properties
CO4. Compare the properties of magnetic materials
CO5. Understand and implement structure, composition & thermal properties like thermal capacity, thermal conductivity &electrical conductivity of solid materials
CO6. Describe theories of Einstein & Debye model
CO7. Get the knowledge of bond structure of pure semiconductor

Department : PHYSICS
Semester : B.Sc.VI
Subject Name & Code : Network theorems, Optoelectronic & Electronics & Physics

Students are able to
CO1. Analyses logic gates using diodes & transistors CO2. Learn applications of optical fibers
CO3. Learn photodiode, working of LED
CO4. Understand liquid crystals & its applications
CO5. Learn & understand Thevenins & Norton's theorem, wave propagation & modulation
CO6. FET construction working & characteristics CO7. Develop pn junction & study their characteristics
CO8. Understand the basic structure & operation of JFET & MOSFET

Course Outcomes

Department : Mathematics
Semester : B.Sc.I
Subject Name & Code: MATDSCT 1.1: Algebra - I and Calculus – I

Course Learning Outcomes: This course will enable the students to
1. Learn to solve system of linear equations.
    a. Solve the system of homogeneous and non homogeneous linear of m equations in n variables by using concept of rank of matrix, finding eigen values and eigen vectors.
    b. Sketch curves in Cartesian, polar and pedal equations.
    c. Students will be familiar with the techniques of integration and differentiation of function with real variables.
    d. Identify and apply the intermediate value theorems and L'Hospital rule.

Department : Mathematics
Semester : B.Sc.II
Subject Name & Code: MAT DSCT 2.1: Algebra - II and Calculus – II

Course Learning Outcomes: This course will enable the students to

1. Recognize the mathematical objects called Groups.
2. Link the fundamental concepts of groups and symmetries of geometrical objects.
3. Explain the significance of the notions of Cosets, normal subgroups and factor groups.
4. Understand the concept of differentiation and fundamental theorems in differentiation
5. and various rules.
6. Find the extreme values of functions of two variables.

Department : Mathematics
Semester : B.Sc.III
Subject Name & Code: Vector Algebra and Analytical Solid Geometry

C01: Recapitulation of vector algebra. Vector triple product. Product of four vectors. Reciprocal vectors.

C02: Cartesian coordinates in three-dimensional space. Relation between Cartesian coordinates and position vectors.

C03: Distance and division formulae Direction cosines of a line Direction ratios of the join of two points. Projection on a straight line angle between two lines Area of a triangle and volume of a tetrahedron with given vertices

C04: Equation of a plane in the form: (i) (r-a)n=0 (ii) r=c+la+mb (iii) [r-a,b-a,c-a]=0 and their Cartesian equivalence. Plane through three points.

C05: Angle between planes. Equation of plane in the form (i) ; (ii) and their equivalent Cartesian forms. Angle between line and plane

C06: Condition for a line to lie in a plane.Planes coaxial with given planes. Equation of the line of intersection of two planes.Perpendicular distance of a point from a line and plane. Planes bisecting the angle between two given planes co-planarity of two lines. Shortest distance between two lines.

Department : Mathematics
Semester : B.Sc.III
Subject Name & Code: Real Analysis (3.2)

C01: Rolle's theorem, Lagrange's and Cauchy's mean value theorem. Taylor's theorem with Lagrange's form of the remainder. Taylor's and Maclaurin's series. Problems on transcendental functions. Indeterminate forms, L'Hospital rules.

C02: Recapitulation of real number system, postulates and their consequences, inequalities and absolute values, lower and upper bounds.

C03: The upper and lower sums, necessary and sufficient conditions for integrability. Algebra of integrable functions. Intergrability of continuous and monotonic functions. Fundamental theorem of calculus, change of variables. Integration by parts.

C04: The first and second mean value theorems of integral calculus.

C05: Definitions of a line integral, basic properties. Examples on evaluation of line integrals. Examples on differentiation under integral sign and integration under differential sign.

C06: Definitions of double integral: its conversion to iterated integrals. Evaluation of double integrals (i) under given limits (ii) in regions bounded by given curve – change of variables. Surface areas as double integrals. Definition of a triple integral and evaluation. Change of variables. Volume as triple integrals.

Department : Mathematics
Semester : B.Sc.IV
Subject Name & Code: Algebra-III (4.1)

C01: Cyclic groups, cosets, Lagrange's, Fermat's and Eular's thermos.

C02: Normal sub-groups, Homorphism, Kernel of Homorphism, fundamental theorem of Homomorphism, Isomorphism. Permutation groups, rings, sub-rings, Integral domains, fields and their simple properties with examples.

C03: Vector space examples Including Rn and Cn. Properties of vector space: Sub-spaces. Criteria for a subset to be a subspace.

C04: Linear combination concepts of linearly independent and dependent subsets. Basis and dimension of a vector space and standard results related to a basis.

C05: Examples illustrating concept and results Linear transformations: Properties of linear transformations, matrix of a linear transformation, change of basis, range and Kernel of a linear transformation, rank nullity theorem.

Department	:	Mathematics
Semester	:	B.Sc.IV
Subject Name & Code:		Differential Equations-I

C01: Formation of differential equations, equations of first order and first degree equations of first order and higher degree equations, solvable for p, x, y. Clairaut's equations. Singular solutions.

C02: Linear equation with nth order and constant coefficients.

C03: Particular integral when RHS is of the form e ax, xn sin ax, cos ax, eax V, xV where V is a function of x. Cauchy Euler differential equations of order two.

C04: Simultaneous differential equations with constant coefficients.

C05: Solution of ordinary second order linear differential equations by the following methods

Department	:	Mathematics
Semester	:	B.Sc.V
Subject Name & Code:		Vector Analysis and Laplace Transforms

C01 : Vector Analysis: Scalar field, gradient of a scalar field, geometrical meaning, directional derivatives.

C02 : Vector field, divergence and curl of a vector field. Solenoidal and irrotational fields.

C03 : Laplacian of a scalar field. Vector identities. Expressions fodiv f and curl f in orthogonal, curvilinear coordinates and specialization to   Cartesian, cylindrical and spherical coordinates

C04 : Greens, Gauss and Stokes theorems simple examples.

C05 : Fourier Series: Periodic functions. Fourier series of functions with period 2π and period 2L. Halfrange cosine and sine series.

C06 : Laplace Transform: Definition and basic properties. Laplace transform of some common functions.

C07 : Laplace transforms of the derivatives and the integral of a function. Laplace transform of the Heaviside and Dirac delta function –

C08 : Convolution theorem. Inverse Laplace transforms: Application to ordinary linear differential equation of first and second order with constant coefficients.

Department	:	Mathematics
Semester	:	B.Sc.V
Subject Name & Code:		Differential Equations-II (5.2)

C01 : Series Solution: Legendre differential equation. Legendre polynomials Pn (x) as a solution, Rodrigue's formula, generating polynomials theorem.

C02 : Orthogonal property and basic recurrence relations Bessel differential equation. Bessel function $J_n(x)$ as a solution –

C03 : Generation formula –   integral formula for Jn (x): orthogonal property. Basic recurrence relations – problems there on.

C04 : Total Differential Equation: Necessary condition for the equation Pdx+Qdy+Rdz=0 to integral – problems there on. Solution of equation of the form = P dx Q dy Rdz

C05 : Partial Differential Equations Formation of partial differential equations, Lagrange's linear equations Pp+ Qq =R.

C06 : Standard types of first order linear partial differential equations and equations reducible to standard form. Charpit's method.

Department	:	Mathematics
Semester	:	B.Sc.V
Subject Name & Code:		Theory Of Graphs-I (5.3)

C01 Graphs, finite and null graphs. Connectedness and component

C02 Degree of vertex, minimum and maximum degree, $\sum deg$ Vi =2V. The number of vertices of odd degree is even.

C03 Isomorphism, complete graph, line graph, total graph.

C04 Sub-graph, spanning and induced sub-graphs, walk, trail, path, cycle, the shortest path Problems
C05 Bipartite graph. Characterization of bipartite graph in terms of its cycles. 10 hrs C06 Matrix representation: Incidence, adjacency,
C07 Rank of a matrix, cyclic matrices, some applications.

Department	:	Mathematics
Semester	:	B.Sc.VI
Subject Name & Code:		Numerical Analysis (6.1)

C0 1.Errors: Classification of errors absolute, rounding, relative and percentage errors.
Relations connecting the errors with illustrations.

C0 2 .Solution of non-linear equations: method of successive bisection, method of false position, Newton-Raphson's iterative method, the secant method.

C0 3 . Solution of system of equations: Gauss elimination method, Jacobi method, Gauss-Seidel method.

C0 4. Finite Differences: Definition and properties of Δ & ❑and E and relations between them.
The nth differences of a polynomial.

C0 5. Interpolation: Newton-Gregory forward and backward interpolation formulae,

CO 6. Lagrange's and Newton's interpolation formula for unequal intervals, inverse interpolation.

C0 7. Numerical differentiation using forward and backward difference formulae. Computation of first and second derivatives.

C0 8. Numerical integration: General Quadrature formula. Trapezoidal rule, Simpsons 1/3rd and 3/8th rules, Weddles rule, Problems thereon.
C0 9.Solution of initial value problem for ordinary linear first order differential equations by Picard's

C0 10. Taylor's, Euler's and Euler's modified method and Fourth Order Runge – Kutta Methods.

Department	:	Mathematics
Semester	:	B.Sc.VI
Subject Name & Code:		Complex Analysis and Improper Integrals

C01:.Trigonometry: Expression of sine and cosines using De-Moiver's theorem. Series of sines and cosines.
C02: .Hyperbolic functions. Logarithm of a complex number Summation of trigonometric series C03.Complex Analysis: Recapitulation of Complex numbers, the complex plane, conjugate and
Modulus of a complex number.
C04 :The polar form, geometrical representation, Euler's formula $e i\theta = \cos \theta + i \sin \theta$
Functions of complex variables: Limit, continuity and differentiability.

C05: Analytic functions, Cauchy-Reimann equations in Cartesian and polar forms. Sufficient conditions for analyticity.

C06: Real and imaginary parts of analytic function which are harmonic. Construction of analytic function, given real and imaginary parts.

C07: The complex line integral: Examples and properties neighborhood of a point, closed contour, etc. at appropriate places should be mentioned).

C08: Cauchy integral theorem (statement) and its consequences. The Cauchy's integral formulae for the function and derivatives.

C09: Applications to the evaluation of simple line integrals. Cauchy's inequality. Liouille's theorem-Fundamental theorem of algebra Residue theorem with examples.

C010: Improper Integrals: Improper integrals of the first and second kinds. Convergence- Gamma and Beta functions, normal probability integral and error functions,

C011: Connection between two functions, applications to evaluation of integrals. Duplication formulae, Sterling formulae

Department	:	Mathematics
Semester	:	B.Sc.VI
Subject Name & Code:		Theory of Graph-II (6.3)

CO1: Cut vertex, bridge, block, tree, spanning tree, rooted and binary trees, forest CO2 Some properties of trees, characterizations and some examples

C03: Connectivity: Vertex and edge connectivity. Separability, Whitney's inequality K(G)≤G≤

(G). Menger's theorem statement. C03 Eulerian and Hamiltonian Graphs:

C04: The Konigsberg Bridge (new name as Kaliningrad) problem and travelling salesme problem.

C05: Characterization of Eulerian graphs and properties of Hamiltonian graphs. Some applications of graphs in electronic network.

Course Outcomes

Department	:	Chemistry
Semester	:	B.Sc.I
Subject Name & Code :		DSC-11:Analytical and Organic Chemistry – I:

1. The concepts of chemical analysis, accuracy, precision and statistical data treatment
2. Prepare the solutions after calculating the required quantity of salts in preparing the reagents/solutions and dilution of stock solution.
3. The concept of volumetric and gravimetric analysis and deducing the conversion factor for determination
4. Handling of toxic chemicals, concentrated acids and organic solvents and practice safety procedures.
5. The concepts of Organic reactions and techniques of writing the movement of electrons, bond breaking, bond forming
6. The Concept of aromaticity, resonance, hyper conjugation, etc.
7. Understand the preparation of alkanes, alkenes and alkynes, their reactions, etc.
8. Understand the mechanism of nucleophilic, electrophilic reactions

Course Outcomes

Department	:	Chemistry
Semester	:	B.Sc.II
Subject Name & Code :		DSC – 2: INORGANIC AND PHYSICAL CHEMISTRY - I

1. The concepts of chemical analysis, accuracy, precision and statistical data treatment
2. Prepare the solutions after calculating the required quantity of salts in preparing the reagents/solutions and dilution of stock solution.
3. The concept of volumetric and gravimetric analysis and deducing the conversion factor for determination
4. Handling of toxic chemicals, concentrated acids and organic solvents and practice safety procedures.
5. The concepts of Organic reactions and techniques of writing the movement of electrons, bond breaking, bond forming
6. The Concept of aromaticity, resonance, hyper conjugation, etc.
7. Understand the preparation of alkanes, alkenes and alkynes, their reactions, etc.
8. Understand the mechanism of nucleophilic, electrophilic reaction.

Department	:	Chemistry
Semester	:	B.Sc.III

Subject Name & Code :   Organic Chemistry

CO1:Student will write bond Chemical bond using V.B.T
CO2:Understand about Types of solvent their characteristics and applications reactions CO3. They will Classify the alcohols and they will write examples
CO4:Learn about Phenol classification and acidic strength of alcohols and phenols CO5.Understand about how to Nomenclature the ether and epoxides and their synthesis CO6.Undestod Surface tension determination by stalgmometer theoretically.
CO7:Student will differentiate Unimolecular and Bimolecular reactions.
CO8:Gain the more knowledge about I Law of thermodynamics and Joule Thomson effect.

Department   :   Chemistry
Semester   :   B.Sc.IV
Subject Name & Code : Organic Chemistry

CO 1: Understand about the Nuclear chemistry and n/p ratio.
CO 2 : Learn the basics of 'd'block elements magnetic property color and 3d series elements.
CO 3: Understand the Lanthanide series and electronic configurations of f-block elements
CO 4: Students will got how to Synthesize the aldehydes and ketones and structure.
CO 5: Understand the Optical activity D and L configurations
CO 6: Learn about basics and significance of Second law of thermodynamics.
CO7: Students will understand Selection rules for rotational, vibrational and electronic spectra.

Department   :   Chemistry
Semester   :   B.Sc.V
Subject Name & Code :   Optional Chemistry

CO1: Understand the Organ metallic compound structure and chemical reaction
CO2: Learn about Principles of IR, UV and their measurements
CO3:Students will got the knowledge of conductance applications.
CO4:Know about General characteristics of catalysis
CO5:Understand about Equilibrium constant Le- chatalier's principle
 CO6:.Learn about characteristics of Heterocyclic aromatic and pyrrole
CO7:Understand about the Factors affecting stability of complex
CO8:They will know Applications and synthesis of vitamins and Hormones

Department   :   Chemistry
Semester   :   B.Sc.VI
Subject Name & Code :   Optional Chemistry

CO1. Understand the Principles and raw materials manufactures.
CO2. They will learn what are the Types of precipitates are there.
CO3. Learn the basics of Aminoacid, peptides proteins their classification and structure.
CO4. Understand the Factors affecting rate of enzymatic reaction.
CO5. Gain the knowledge of Rault's law and its derivation.
CO6. They can understand the Types of Electrodes and EMI Measurements.
CO7. Students will understand laboratory errors while doing experiments.
CO8.Understand the Types of soaps and their applications and also significance of dyes, drugs, oils and fats.
CO9. Learn about how to Analyse the water and soil, also their waste management's.

Department   **:** Computer Science
Semester   **:** B.Sc.III
Subject Name & Code **:** COBOL and System Analysis and Design Students will be able to apply the following

CO 1: Structure of COBOL program
CO 2: Constants, Literals and coding rules
CO 3: Data types, COBOL verbs and operators CO 4: Input and Output statements
CO 5: Conditional Statements
CO 6: Table Handling and its types
CO 7: File Handling and sorting of files CO 8: System analyses tools used by them CO 9: System design and structure

Department   **:** Computer Science
Semester   **:** B.Sc.IV
Subject Name & Code **:** Data structures using 'C'

CO1: Introduction and operations on data structures
CO2: Memory allocation and pointers
CO3: Stacks and operations on stack
CO4: Queues, Types of Queues
CO5: Linked list and advantages and disadvantages of linked list
CO6: Sequential search and binary search and comparison between them
CO7: Bubble sort, Selection sort, merges sort, Insertion sort and quick sort

Department   **:**   Computer Science
Semester   **:**   B.Sc.V (P-1)
Subject Name & Code **:**   Database Management System

CO1: Characteristics of database and advantages using DBMS
CO2: Data models, Schemas and Instances and classification of DBMS
CO3: Data modeling using E-R model
CO4: Data types and queries in SQL
CO5: Database modifiers in SQL
CO6: Relational data model
CO7: Database design and its normal forms
CO8: Transaction processing of database

Department   **:** Computer Science
Semester   **:** B.Sc.V (P-2)
Subject Name & Code **:** OOPS with C+

Students will gain the knowledge on object oriented programming
CO1: Structure of object oriented paradigm and elements of OOP
CO2: Inline functions function overloading and function overriding
CO3: Class, Objects, Access members, constructors and destructors
CO4: Scope resolution operation, operation overloading using friend function
CO5: Inheritance and its types
CO6: Virtual functions and polymorphism
CO7: Exception Handling and templates
CO 8: Stream class hierarchy, reading and writing strings
CO 9: File pointers error handling and command line argument

Department : Computer Science
Semester : B.Sc.VI (P-1)
Subject Name & Code : Programming in Visual Basic 6.0

CO1: Designing tools available in visual basic environment.
CO 2: Objects, Events and Methods
CO 3: Different forms of controls in visual basic.
CO 4: Programming in Visual basics and its functions.
CO 5: Branching, Looping and arrays used in visual basic.
CO 6:Object oriented programming in visual basic.

Department : Computer Science
Semester : B.Sc.VI (P-2)
Subject Name & Code : Java and Internet Programming

CO 1: Java and Java applications
CO 2: Data types and java tokens, access specifies
CO 3: Operators, experiences and control statements
CO 4 : Classes Inheritance and exceptions
CO 5: Applets and tags
CO 6: Multithreaded programming
CO 7: Graphics programming
CO 8: Event Handling and simple programmes

Programme Specific Outcomes (PSO)
Subject: M.Sc. Botany
Programme Code: HCT-1.1: PHYCOLOGY, MYCOLOGY, BACTERIOLOGY AND VIROLOGY

PSO1: Develop a conceptual understanding of principles and importance of Botany. Students would be benefited with knowledge of core subjects like plant diversity, Biostatics and Bioinformatics, Ecology and Environmental biology, plant pathology, Methods in plant sciences, molecular biology, Genetics and evolution, Systematic Botany, Plant physiology, Plant breeding etc. which are offered in these subjects Modules on analytical techniques, Plant biotechnology, plant propagation, Medicinal plants and phytochemistry would make them obtain skills that help in doing research.

PSO2: Learn about practical technique in lab for detail study of plant cell structure, reproduction, anatomy, breeding procedures for hybridization. Maintain a high level of scientific excellence in botanical research with specific emphasis on the role of plants. Create, select and apply appropriate techniques, resources and modern technology in multidisciplinary way. Practice of subject with knowledge to design experiments, analyze and interpret data to reach to an effective conclusion.

PSO3: They would identify, formulate and analyze the complex problems with reaching a substantiated conclusion. Logical thinking with application of biological, physical and chemical sciences. Learning that develops analytical and integrative problem-solving approaches.

PSO4: Students would perform functions that demand higher competence in national/international organizations with sporty and helping spirits. Prepare the students for many competitive exams like KPSC,IFS, UPSC, NET SLET GATE.

PSO5: Best problem-solving skills in students would encourage them to carry out innovative research projects thereby making them to use knowledge creation in depth. Enable the students to be resourceful in identifying the plants.

PSO6: Knowledgeable, disciplined students with good values, ethics, and kind heart will help in nation building globally. Student should be aware of ethical issues and regulatory considerations while addressing society needs for growth with honesty.

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B.Com Programme Specific Outcomes & Course Outcomes

Department : Commerce
Semester : B.Com.I
Subject Name & Code : 1.1 Financial Accounting.

Course Outcomes: On successful completion of the course, the Students will be able to

CO1: Understand the theoretical framework of accounting as well accounting standards.
CO2: Demonstrate the preparation of financial statement of manufacturing and non-manufacturing entities of sole proprietors.
CO3: Exercise the accounting treatments for consignment transactions & events in the books of consignor and consignee.
CO4: Understand the accounting treatment for royalty transactions & articulate the Royalty agreements.
CO5: Outline the emerging trends in the field of accounting.

Department : Commerce
Semester : B.Com.I
Subject Name & Code : 1.2 Management Principles and Applications

Course Outcomes: On successful completion of the course, the Students will be able to

CO1:Understand and identify the different theories of organizations, which are relevant in the present context.
CO2: Design and demonstrate the strategic plan for the attainment of organizational goals.
CO3: Differentiate the different types of authority and chose the best one in the present context.
CO4: Compare and chose the different types of motivation factors and leadership styles.
CO5: Choose the best controlling techniques for better productivity of an organization.

Department : Commerce
Semester : B.Com.II
Subject Name & Code : 2.1 Advanced Financial Accounting

Course Outcomes: On successful completion of the course, the Students will be able to
CO1: Understand & compute the amount of claims for loss of stock & loss of Profit.
CO2: Learn various methods of accounting for hire purchase transactions.
CO3: Deal with the inter-departmental transfers and their accounting treatment.
CO4: Demonstrate various accounting treatments for dependent& independent branches.
CO5: Prepare financial statements from incomplete records

Department : Commerce
Semester : B.Com.II
Subject Name & Code : 2.2 Business Mathematics

Course Outcomes: On successful completion of the course, the Students will be able to

CO1: Understand the number system and indices applications in solving basic business problems.
CO2: Apply concept of commercial arithmetic concepts to solve business problems.
CO3: Make use of theory of equation in solving the business problems in the present context.
CO4: Understand and apply the concepts of Set Theory, Permutations & Combinations and Matrices solving business problems.
CO5: Apply measurement of solids in solving simple business problems.

Department	:	Commerce
Semester	:	B.Com.II
Subject Name & Code	:	2.2 Corporate Administrations

Course Outcomes: On successful completion of the course, the Students will be able to

CO1: Understand the framework of Companies Act of 2013 and different kind of companies.
CO2: Identify the stages and documents involved in the formation of companies in India.
CO3: Analyze the role, responsibilities and functions of Key management Personnel in Corporate Administration.
CO4: Examine the procedure involved in the corporate meeting and the role of company secretary in the meeting.
CO5: Evaluate the role of liquidator in the process of winding up of the company.

Department	:	Commerce
Semester	:	B.Com.II
Subject Name & Code	:	2.3 Law and Practice of Banking

Course Outcomes: On successful completion of the course, the Students will be able to

CO1: Summarize the relationship between Banker & customer and different types of functions of banker.
CO2: Analyze the role, functions and duties of paying and collecting banker.
CO3: Make use of the procedure involved in opening and operating different accounts.
CO4: Examine the different types of negotiable instrument & their relevance in the present context.
CO5: Estimate possible developments in the banking sector in the upcoming days.

Department	:	Commerce
Semester	:	B.Com. III
Subject Name & Code	:	Principles and practices of Management.

Students learned about Evolution of management.
CO1: Students come to know about the nature and scope of Management process.
CO2: Students should aware of planning and decision making process.
CO3: Students learned about Organization and organization structure.
CO4: To enumerate theories of motivation.
CO5: Students should aware of Communication, co-ordination and control process.

Department	:	Commerce
Semester	:	B.Com.III
Subject Name & Code	:	Indian financial system

Co 1: Students learned about structure and functions of financial system
Co 2: They know about different financial market its functions.
Co 3: Instruments used in financial market
Co 4: Students learned about mechanism of issuing instruments in financial market

Department	:	Commerce
Semester	:	B.Com.III
Subject Name & Code	:	Corporate Accounting

Co 1: Students should know methods or mechanism of issue of shares
Co 2: Know about maintenance of final accounts of joint companies
Co 3: Students aware about the company's internal and external reconstruction
Co 4: Procedure of liquidation of companies

Department : Commerce
Semester : B.Com.III
Subject Name & Code : Retailing Management

CO1: To know the strategic planning for all retail organization structure
CO2: To prepare the advertising copy for a retail shopping store.
CO3: To give the knowledge of how to maintain stores, store management, store design.

Department : Commerce
Semester : B.Com.III
Subject Name & Code : Business Statistics

CO1: Know about women statistics.
CO2: Preparation of correlation co-efficient
CO3: Properties of regression co-efficient and business applications.
CO4: Construction of cost of living Index numbers.
CO5: Methods of family budget.

Department : Commerce
Semester : B.Com. III
Subject Name & Code : Monetary Economics

CO1: Construction of index numbers from the collected data for a specific period (Wholesale and Retail prices).
CO2: Preparations of graphs for price fluctuations for few commodities.
CO3: Student should be able to understand macroeconomic problems of the economy. The problems like Inflation, Deflation, economic fluctuations etc.,
CO4: Student should be able to understand the working of different types of Banks.

Department : Commerce
Semester : B.Com. IV
Subject Name & Code : Insurance – Principles and Practices.

CO1: To understand the concept, origin, role and importance of insurance.
CO2: Students come to know about the types of insurance – Life insurance and general insurance.
CO3: Students should aware of fire, marine and miscellaneous insurance.
CO4: To enumerate the role of private companies in insurance business.

Department : Commerce
Semester : B.Com. IV
Subject Name & Code : Corporate Accounting –II

Co 1: Helps to know accounts of holding companies
Co 2: Helps to know accounts of banking companies
Co 3: Develop skills computerized accounting

Department : Commerce
Semester : B.Com. IV
Subject Name & Code : Modern Banking
Co 1: Preparation of cheques and crossing of cheques and endorsement of cheques
Co 2: Services rendered by banks
Co 3: Know about employment of bank funds
Co 4: Models of advancing Banking payment
Co 5: Concept of Electronic banking payment System Co 6: Using of smart cards and its risk

Department	:	Commerce
Semester	:	B.Com. IV
Subject Name & Code	:	Advertising and Sales Management

Co1: To build advertising creativity
Co2: To explain how to prepare advertising copy with help of agency
Co3: To prepare advertising budget

Department	:	Commerce
Semester	:	B.Com. IV
Subject Name & Code	:	Business Statistics

Co1: Know about correlation and Regression
Co2: Know how to measure secular trend
Co3: Know about construction of index numbers
Co4: Know about sampling, censes and sample survey, probability.

Department	:	Commerce
Semester	:	B.Com. IV
Subject Name & Code	:	International Trade

Co1: Students are able to computation of data of India's foreign trade exports and imports.
Co2: Student should get familiar with the role and issues of international trade, foreign exchange and balance of payment.
Co3: Student should be able to understand the concept of dumping, effects of tariff and quotas.
Co4: Student should be able to understand meaning, importance and determination of rate of exchange.

Department	:	Commerce
Semester	:	B.Com. V
Subject Name & Code	:	Human Resources Management

Co1:To understand the nature and scope of HRM.
Co2:Distinguish Personnel management with HRM.
Co3:Students come to know about the Recruitment, selection, placement and induction process.
Co4:Students should aware of methods of training and evaluate performance appraisal system.
Co5:Students should know about the remuneration, welfare and social security measures.
Co6:To know the role of Quality circle and total quality management.

Department	:	Commerce
Semester	:	B.Com. V
Subject Name & Code	:	Taxation - I.

To impart the knowledge of basic concepts of Income tax, taxation and income tax act 1961.

Co1: Students should know about the rules for determine residential status.
Co2: To know the elements of exempted income.
Co3: To train the students in computation of income under the head Salary, House property, Business or Profession.
Co4: To gain the knowledge of GST.

Department	:	Commerce
Semester	:	B.Com. V
Subject Name & Code	:	Taxation - I.

Co 1: Know about financial matters and role and responsibilities of financial manager
Co 2: Student aware about the capitalization and capital structure of companies
Co 3: To know how to analyze cost of different sources of capital Co 4: Know about management of working capital

Department	:	Commerce
Semester	:	B.Com. V
Subject Name & Code	:	Cost Accounting I

Impart the knowledge of basic concepts of cost accounting and elements of costs

Co 1: To train the students in preparing cost sheet and find out the cost of production.
Co 2: To gain the knowledge of material control by using these techniques of EOQ, STOCK LEVELS,FIFO LIFO
Co 3: To get the information about labour cost control
Co 4: To collection and classification of overheads in an organization
Co 5: To developing a case for reconciliation

Department	:	Commerce
Semester	:	B.Com. V
Subject Name & Code	:	Principles and Practice of Auditing

Explain auditing, types of audit conducted indifferent organization.

Co 1: To give the knowledge of test check, vouching, internal check, etc
Co 2: Comparison between manual accounting audit, computer frauds.
Co 3: To list the papers maintained in permanent audit file.
Co 4: To know the importance of audit reports, certificates

Department	:	Commerce
Semester	:	B.Com. VI
Subject Name & Code	:	E-Commerce and Programming in Visual Basic 6.0

CO 1: Introduction to E-Commerce and session objects in E-Commerce applications
CO2: E-Working with files and products catalog database
CO3: E-building the transaction databases
CO 4: Visual Basic Programming Style and opening project and saving
CO 5: Project explorer window and developing simple applications
CO 6: Controls in Visual Basic and simple applications

Department	:	Commerce
Semester	:	B.Com. VI
Subject Name & Code	:	Taxation - II.

CO1:To train the students in computation of capital gain and income from other sources.
CO2Students should know about the computation of deductions u/s 80C to 80U.
CO3To know about the tax provisions relating to set-off and carry forward of losses.
CO4To illustrate assessment of individuals and computation of tax liability.
CO5:To understand the procedure for assessment.
CO6:To train the students in computation of GST.

Department : Commerce
Semester : B.Com. VI
Subject Name & Code : Principles of Management Accounting

CO1:To impart the knowledge of management accounting concept and techniques for business decisions.
CO2:Students should know about analysis and interpretation of financial statements.
CO3:To know the elements of exempted income.
CO4:To train the students in preparation of fund flow statement, cash flow statement, ratio analysis and leverages.

Department : Commerce
Semester : B.Com. VI
Subject Name & Code : Financial Services

Co 1: Know about merchant banking services
Co 2: Know about accounts of leasing company

Department : Commerce
Semester : B.Com. VI
Subject Name & Code : Cost Accounting II

CO1:To prepare job cost sheet
CO2:To give the knowledge of contract account for construction of building
CO3:To gain the knowledge of different stages of production.
CO4:To find out the operating costing with the help of operating cost sheet.

Department : Commerce
Semester : B.Com. VI
Subject Name & Code : Business Law

CO1:Know about rent agreement incorporating all the essential features of a valid agreement.
CO2:Know about an agreement to repay a loan borrowed from bank on installment basis.
CO3:Know points of law of contracts, and contracts of sale.

Department : Commerce
Semester : B.Com. VI
Subject Name & Code : Industrial Economics

CO1:Students would be able to understand the meaning, features and role of industrialization.
CO2:Students would be able to understand the role of public sector and private sector in economy.
CO3:Students would be able to understand meaning, role and types of industrial finance.
CO4:Students would be able to understand the problems and prospects of Steel, Cotton, Textile, Sugar, Cement and jute industries in India.