Part A Introduction			
Program: Certificate	Class: BSc-I SEM	Year:202 2	Session: 2022-23
Subject: Botany			

1	Course Code	S1-BOTA2T
2	Course Title	Basic Botany
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Minor
4	Pre-requisite (if any)	To study this course, a student must have had the subject botany in class/12th/ certificate/diploma.
5	Course Learning outcomes (CLO)	• This course will help the student to understand the diversity of plants and evolutionary process in plant kingdoms. • It gives an accounts of plant adaptations from aquatic condition to colonize terrestrial habitat. • The changes in morphological, anatomical and reproductive structures that propel plant evolution can be investigated. • The economic importance and significance of plants in nature will be understood. • They will be acquainted with locally prevalent microbial dis... d humans
6	Credit Value	4 Credits
7	Total Marks	Max. Marks: 60 + 40 Min. Passing Marks: 35

Part B- Content of the Course

Total No. of Lectures- 60Tutorials- 0 Practical =0 (theory 4 hours per week): L-T-P:

Unit	Topics	No. of Lectures
I	1.1 History of Botany and Indian Contributions. 1.2Morphological Characteristics of lower and higher plants(Angiosperms). 1.3Types of leaves. Inflorescence, Flowers and Fruits. 1.4 Structure of Plant cell and cell organelles, Prokaryotic and Eukaryotic Cells, types of Cell division. 1.5 Microscope structure and function of light microscope (magnification and resolving power), 1.6 Various types of Microscopes: Bright field, Phase Contrast, SEM and TEM.	12
II	1. Algae 1.1General characteristics 1.2Range of thallus organization, reproduction. 1.3Types of life-cycles in algae 1.4 Role of algae in nature and its economic importance.	12

	2Bryophytes : 2.1General characteristics, Ecology. 2.2Range of thallus organization, morphology, anatomy(internal and external features) and reproduction of any one Bryophyte. 2.3Economic importance of Bryophytes	
III	**1Pteridophytes** **1.1General** characteristics and morphology. 1.2Stelar organization and reproduction. 1.3Heterospory and seed habit. 1.4Economical importance 2.Gymnosperms 2.1General description and their distribution. 2.2Economical importance of Gymnosperms. 3.Paleobotany 3.1Indian contribution in Paleobotany. 3.2Brief knowledge of Fossils and Geological time scale.	12
IV	1Fungi 1.1 General characteristics and cell wall	12

Part A Introduction			
Program: Certificate	**Class: I st year**	**Year: 2021**	**Session: 2021-22**
Subject : Botany Practical			

1	**Course Code**	**S1-BOTA2P**
2	**Course Title**	**Basic Botany Practical**
3	**Course Type (Core Course/Elective/Generic Elective/Vocational/.....)**	Elective
4	**Pre-requisite (if any)**	To study this course, a student must have had the subject of Biology/ Life science/Agriculture in class 12th.
5	**Course Learning outcomes (CLO)**	• **Students will learn** to carry out practical work in the laboratory, • Interpreting plant morphology and anatomy of various groups of lower and higher plants. • Students will be able to identify the major groups of microorganisms.
6	**Credit Value**	**2 Credits**
7	**Total Marks**	Max. Marks: 50 40 Min. Passing Marks:33

Part B- Content of the Course

OTotal No. of Practical- 30 HoursTutorials- 00 -Practical (2 hours per week): L-T-P:

Unit	Topics	No. of Practical
I to V	1. Study of various types of leaves , inflorescence, Flowers and fruits. 2. Understanding various parts of Microscope(simple and compound microscope) 3. Study of plant cells (e.g. Onion etc.) 4. Study of permanent slides of Mitosis and meiosis 5. Study of Electron Micrographs of Cell and organelles from Internet, You -Tube. 6. Identification of various algae from specimens, slides and temporary mounts of water from nearby areas like, *Noslo•*, *Os•illato•ia, Volvox, Spirokira, Oedogonium, Chard* and specimens and pictographs of marine algae like *Ectoccupu.s., Sargassinn, Polysiphonia.* 7. Study and identification of some Bryophytes like *Riccia, Marchaniia, Anthoceros, Fiiii7Ci•ia and* Field visit. 8. Study of some fossils (specimens and slides) 9. Study of some Pteridophytes like *Ly•opodium, Sellaginella, Equisenun, Marselia* andstudy of any one fern	**30**

Part A Introduction				
Program- CERTIFICATE		**Class- B.Sc.**	**Year- First** Sem	**Session- 2021-2022**
Subject – Chemistry				
	Course Code	**S1-CHEM2T**		
	Course Title	**Analytical Chemistry**		
	Course Type	Elective		
	Pre-requisite (if any)	To study this course students must have had the subject Chemistry in class +2 or equivalent.		
	Course Learning Outcomes (CLO)	By the this course students will learn thefollowing aspects of Chemistry: 1. Basic concepts of Mathematics for Chemists. 2. Fundamentals of analytical chemistry andsteps involved in analysis. 3. Basic Knowledge of Computer for chemists. 4. Basic Concepts of Chemical equilibrium. 5. Principles of Chromatography and chromatographic techniques. 6. Various techniques of Spectroscopic Analysis.		
	Credit Value	4 2		
	Total marks	Maximum Marks: CCE 40 University Exam (UE) 60	Minimum Passing Marks:33	

Part B – Content of the course		
Total No. of Lectures-Tutorials-Practical (In hours per week): L-T-P: 90-0-30		
Unit	**Topic**	**No. of Lectures**
1	**Mathematics for Chemists** Straight line equation, Logarithmic relation, curve sketching, linear graphs & calculation of slopes. Differentiation, differentiation of functions like k_x, e^x, x^n, sinx, logx, maxima & minima, partial differentiation. Integration of some useful relevant functions. ***Keywords/Tags:*** *Linear graphs, Logarithmic Relation, Differentiation, Integration.*	10
2	**Basic Analytical Chemistry:** Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurement . Presentation of experimental data and results, from the point of view of significant figures, statistical terms: mean, mean deviation, median standard deviation, Numerical Problems. **Calculations used in Analytical Chemistry** **Some Important units of measurements-** SI Units, distinction between mass and weight, mole, milli mole and Numerical Problems. **Solution and their concentrations-** Concept of Molarity, molality adn normality, Expressing the concerntration in parts per million (ppm), parts per billion (ppb), Numerical Problems. **Chemical Stoichiometry-** Empirical and Molecular Formulas, Stoichiometric Calculations, Numerical Problems. ***Keywords/Tags:*** *Accuracy, Precision, SI units, Units of Concentration, Chemical stoichiometry.*	**10**

3	**Computer for chemists** Introduction to computer, Introduction to operating systems like- DOS, Windows, Linux and Ubuntu. **Use of computer programs**	10

	Running of standard programs & packages such as MS-word, MS-excel, PowerPoint, Execution of linear regression x-y Plot. Use of software's for drawing structures and molecular formulae. ***Keywords/Tags:*** *Operating systems, MS-word, MS-excel, PowerPoint.*	
		10

PRACTICAL			
Program- CERTIFICATE	Class- B.Sc.	Year- First SIBM	Session: 2022-23
Subject – Chemistry			

1	Course Code	S1-CHEM2P
	Course Title	**Analytical Processes and Techniques**
2	Course Type	Elective
3	Course Learning Outcomes (CLO)	**By the end of this course students will learn the following aspects of Laboratory exercises in Chemistry:** 1. Concepts and analytical methods in Chemistry. 2. Preparation of solutions of different concentrations. 3. Standardization of the solution. 4. Identification of Organic compounds by chromatographic techniques. 5. Analysis by Spectral Techniques.
4	Credit Value	2
	Total Marks	Maximum Marks: University Exam (UE)- 60 CCE- 40 Minimum Passing Marks: 35

	External Assessment	Marks
	Experiments to be performed in laboratory	**50**
1	**Basic analytical exercises** • Calibration of different weights and glass apparatus (measuring cylinder, burette, pipette, volumetric flasks). • Preparation of solutions of different morality/normality by weighing and dilution.	**10**
2	**Quantitative Analysis** • **Titrimetric Analysis** • Standardization of NaOH with Oxalic acid. • Determination of carbonate and hydroxide presentin mixture. • Determination of carbonate and bicarbonate present in a mixture. • Determination of free alkali present indifferent soaps/detergents.	**20**

PART A : Introduction			
Program :**Certificate**	Class: **B.Sc.**	Year : **I** Sem	Session: 2022-23
Subject : **Computer Science**			

1.	Course Code	**S1-COSC2T**
2.	Course Title	**Programming Methodology & Data Structure**
3.	Course Type (Core Course/Elective/Generic Elective/Vocational)	Elective
4.	Pre-Requisite (if any)	To study this course ,a students must have had the subject Physics/Maths in 12th class .
5.	Course Learning Outcomes(CLO)	On the Completion of this course ,learners will be able to: 1. Develop simple algorithm and flow chart to solve the problem with programming using top down design principles . 2. Writing efficient and well structured computer algorithms/programs . 3. Learn to formulate iterative solutions and array processing algorithms for problems . 4. Use the recursive technique ,pointers and searching methods in programming . 5. Will be familiar with fundamental data structure ,their implementation ; become accustomed to the description of algorithm in both functional and procedural styles . 6. Have knowledge of complexity of basic operations like insert ,delete ,search on these data structure . 7. Posses ability to choose a data structure to suitably model any data used in computer applications . 8. Design programs using various data structure including hash table ,Binary and general search Tree ,heaps ,Graphs etc. 9. Asses efficiency tradeoffs among different data structure implementations. 10. Implement and know the applications of algorithms for searching and sorting etc. 11. Know the contributions of Indian in the field of programming data structures.
6.	Credit value	**Theory-2 Credits**
7	Total Marks	Max .Marks : 60+40 / Min. Passing Marks : 35

I	**Introduction to Programming** :Program concepts ,Characteristics of programming, Stages in program Development, Algorithms, Notations ,Design ,Flow chart, Types of programming Methodologies . **Inroduction to C++ Programming** :Basic Program Structure in the C++,Data types,Variable,Constatnts ,Opearators and basic I/O . **Variable:**Declaring ,defining and initializing variables, scope of variables ,using named constants ,Keywords,Casting of data types ,Opearators(Arithmetic,Logical and Bitwise),Using comments in programs,Character I/O (getc,getchr,putc,putchr etc.),Formatted and console I/O(printf(),scanf(),cin,cout),using basic header files (stdio.h,iostream.h,conio.h etc.). **Simple Expressions in C++** : (Including unary operator Eepressions,Binary operator expressions), understanding operator precedence in expressions .	8
II	**Iterativestatements :**while ,do-while and for loops,use break and continue loops,Using nested Statements (Conditional as well as Iterative). **Functions**:Top-Down design,Pre-defined functions, Programmer defined functions,local variable and global variables,Functionas with default Arguments ,Call by Value and Call by References, Parameters, Recursions. **Introduction to Arrays**: Declaration and Referring Arrays,Arrays in Memory,Initializing Array. Arrays in Functions,Multi-Dimentional Arrays.	10
III	**Structures :**Member Accessing ,Pointers to Structure ,Structureand Functions ,Array of Structure . **Unions :**Declaration and Initialization. **Strings:**Reading and Writing Strings,Arrays of Strings,Strings and Structures, Standard String and Structure, Standard String library Functions. **Searching Algorithms:**LinearSearch,Binary Search . **File Handling :**Use of Files for data input and output ,merging and copying files .	8
IV	**Data Structure** :Basic Concepts, Linear and non linear data structure **Algorithm Specification** –Introduction,recursivealgorithms,Data Abstraction, Performance Analysis. **Linked List**: Singly Linked List, Operations, Concatenating,Circularly linked list ,Doubly linked list –Operations. **Array:** Representation of single,Two Dimensional arrays, sparse matrices-array and linked Representation. **Stacks:**Operations array and linked implementations,applications infix to postfix conversion, postfix expression evaluation, Recursion Implementation.	12
	[illegible] array and linked implementations	10

PART A : Introduction			
Program :**Certificate**	Class: **B.Sc.**	Year : **I** Sem	Session: 2022 2023
Subject : **Computer Science**			

1.	Course Code	**S1-COSC2P**	
2.	Course Title	**Office Tools & Programming MethodologyLab**	
3.	Course Type (Core Course/Elective/Generic Elective/Vocational)	Elective	
4.	Pre-Requisite (if any)	To study a student must have had the subject Physics /Maths in 12th Class	
5.	Course Learning Outcomes(CLO)	**On the Completion of this course learners will be able-** 1. Develop simple algorithms and flow Chart to solve a problem with programming using top down design principles. 2. Writing efficient and well structured computer algorithms/programs. 3. Learn to Formulate iterative solutions and array processing algorithms for problems . 4. Use recursive techniques, pointers and searching methods in programming. 5. Possess ability to choose a data Structure to suitably model any data used in computer applications. 6. Implementation of algorithms for searching and sorting .	
6.	Credit value	**Practical -2 Credits**	
7	Total Marks	Max .Marks : 40 + 60	Min. Passing Marks :**33**

PART B:Content Of the Course

No. of Lab Practical's(in hours per week):**2Hrs. Per week**

Total No. of Labs =30 Hours

Suggested list of Practical's

List of Practical

I. Office Tools .

Using a Text Editor Tool

30 Hours

1. Create a documents and apply different Editing options .
2. Create Banner for your college .
3. Design a Greeting card using word art for different festivals.
4. Design your Bio Data and use page borders and shading .
5. Create a documents and insert header and footer,apgetitle,date,time ,apply various page formatting feature etc.
6. Implement Mail Merge.
7. Insert a table into a document and try different formatting options for the table .

Using a spreadsheet Tool

1. Design your class Time Table .
2. Prepare a Mark Sheet of your class result .
3. Prepare a salary slip of an employee of an organization.
4. Prepare a bar chart & pie chart for analysis of election result.
5. Prepare a generic Bill of a Super Market.
6. Work on the following exercise on answer book;
   a. Copy an existing Sheet
   b. Rename the old Sheet
   c. Insert a new Sheet into an existing Workbook
   d. Delete the renamed sheet.
7. Prepare an attendance sheet of 10 students for any 6 subjects of your syllabus.calculate their total attendance,total percentages of attendance of each students and average of attendance.
8. Create a worksheet of students list of any 4 facilities and perform following database function on it.
   a. Sort data by Name

b. Filter data by Class
c. Subtotal of students by class

Using a Presentation Tool

1. Design a presentation of your institute using auto content wizard, design template and blank presentation.
2. Design a presentation illustrating insertion of pictures, Word Art and Clipart .
3. Design a presentation, learn how to save it in different formats, copying and opening an existing presentation.
4. Design a presentation illustrating insertion of movie, animation and sound.
5. Illustrate use of custom animation and slide transition (using different effects).
6. Design a presentation using charts and tables of the marks obtained in class.

II. **Given a problem statements, student**

Part A- Introduction			
Program: Certificate	**Class**: B.Sc. I Year	**Year**: 2022	**Session**: 2022-2023
Subject: Mathematics			
Course Code	S1-MATH2T		
Course Title	**Calculus and Differential Equations**		
Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective		
Pre-requisite (if any)	To study this course, a student must have had the subject Mathematics in 12 class.		
Course Learning Outcomes (CLO)	The course will enable the students to: 1. Sketch curves in a plane using its Mathematical properties in the different coordinate systems of reference. 2. Using the derivatives in Optimization, Social sciences, Physics and Life sciences etc. 3. Formulate the Differential equations for various Mathematical models. 4. Using techniques to solve and analyze various Mathematical models.		
Credit Value	4		
Total Marks	**Max. Marks:** 100 60+40	**Min. Marks: 33**	

Part B- Content of the Course		
Total numbers of Lectures(in hours per week): 3 hours per week **Total Lectures:** 90 hours		
Unit	**Topics**	**Numbers of Lectures**
1	1.1 Historical background: 1.1.1 Development of Indian Mathematics ancient and early classical period (Till 500 Cen.) 1.1.2 A brief biography of Bhaskaracharya (with special reference to Lilavati and Madhava) 1.2 Successive Differentiation 1.2.1 Leibnitz Theorem 1.2.2 Maclaurin's series Expansion 1.2.3 Taylor's series Expansion	**18**

	1.3 Partial Differentiation 1.3.1 Partial Derivatives of higher order 1.3.2 Euler's theorem on homogeneous functions	

	1.4 Asymptotes 1.4.1 Asymptotes of algebraic curves 1.4.2 Condition for Existence of Asymptotes 1.4.3 Parallel Asymptotes 1.4.4 Asymptotes of polar curves	
2	2.1 Curvature ' 2.1.1 Formula for radius of Curvature 2.1.2 Curvature at origin 2.1.3 Centre of Curvature 2.2 Concavity and Convexity 2.2.1 Concavity and Convexity of curves 2.2.2 Point of inflexion 2.2.3 Singular point 2.2.4 Multiple points 2.3 Tracing of curves 2.3.1 Curves represented by Cartesian equation 2.3.2 Curves represented by Polar equation	**18**
3	3.1 Integration of Transcendental Functions 3.2 Introduction to Double and Triple Integral 3.3 Reduction formulae 3.4 Quadrature 3.4.1 For Cartesian coordinates 3.4.2 For Polar coordinates 3.5 Rectification 3.5.1 For Cartesian coordinates 3.5.2 For Polar coordinates	**18**

	Part A Introduction			
Program Certificate Course		**Class: B.SC.**	**Year : FIRST** Sem	**Session :2022-2023 onwards**
	Subject : Microbiology			
1	**Course Code**		**S1-MBIO2T**	
2	**Course Title**		**Microbial Techniques**	
3	**Course Type**		Elective	
4	**Pre- requisite (if any)**		To Study this course a student must have had the subject	
5	**Course Learning outcomes (CLO)**		After completing this course in Microbiology ,a student shall have understanding of- • Recall the basic lab glassware to be used in the laboratory. • Summarize different methods of sterilization and isolation of pure cultures. • Understand the working of different kinds of instruments and microscopes. • Apply serial dilution technique to isolate the bacteria. • Practice different methods to culture bacteria in the laboratory • Illustrate a method to differentiate between gram positive and gram negative bacteria.	
6	**Credit Value**		4	
7	**Total Marks**	Maximum Marks: 60+40		Minimum Passing Marks: 35

	Part B- Content of the Course		
	Total no of Lectures –60 **Lectures- Tutorials- practical (in hours per week) L-T-P:4-0-0** **Total No. of Lectures: 15**		
Unit	**Topics**		**No. of Lectures**
I	**MICROSCOPY AND STAINING** **1.1 MICROSCOPY-** PRINCIPLES AND APPLICATION OF SIMPLE AND COMPOUND Bright- field microscopy, phase- contrast microscopy, transmission electron microscopy and scanning electron microscopy. **1.2 Preparation for light microscope Examination-** wet mount and hanging – drop techniques preparation for simmer and fixation **Staining-** principles of staining, negative staining, simple staining, differential staining (Gram and acid fast staining), flagella staining capsule and endospore staining,		15

	Key word:microscopy, light microscope, wet mount,Hnging drop method, Bacterial staining.		
II	**Instruments** Electronic Balance, autoclave, centrifuge ,colony counter, deep freezer, homogenizer, hot air oven,incubator,laminar air flow, magnetic stirrer, P h meter, spectrophotometer, vortex mixture, water bath, water distiller chromatography chamber anaerobic chamber and electrophoresis apparatus.		15
III	**Sterilization and culture medium** 3.1 **Physical methods of sterilization:** Dry heat, moist heat, radiation, filtration, and incineration. 3.2 **Chemical methods of sterilization-** Phenol and phenolic compounds, Alcohol, Halogens, and detergents. 3.3 **Types of culture media-** Natural, synthetic, complex, enriched, and selective. Anaerobic (Trio glycol ate broth, Robertson's media,) broth culture of aerobic bacteria. **Keywords:** Physical sterilization, Chemical sterilization, microbial culture media.		
IV	**Isolation, Cultivation and preservation**		

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Part A Introduction			
Program Certificate Course	**Class: B.SC.**	**Year : FIRST** Sem	**Session : onwards** 2022-23
Subject : Microbiology			

1	**Course Code**	**S1-MBIO2P**
2	**Course Title**	**Microbial Tools and Techniques Practical**
3	**Course Type**	Elective
4	**Pre- requisite (if any)**	To Study this course a student must have had the subject
5	**Course Learning outcomes (CLO)**	**On completion of this course, learners will be able to understand:** • Basic Knowledge of glassware, microscopes and different kinds of instruments used in the microbiology laboratory. • Basic media preparation technique, autoclaving, cleaning and sterilization of glassware. • Preparation of liquid and solid culture media. • Isolation of microorganisms by different plating methods.
6	**Credit Value**	**2**
7	**Total Marks**	Maximum Marks: 60+40 / Minimum Passing Marks: 35

Part B – Content of the Course

Total No. of Lectures:30
Lectures – Tutorial – Practical (In hours per week): L-T-P: 0-0-2

S. No.	Name of the Exercise	No. of Lab Hours
1.	Demonstration and briefing about principles and working of basic instruments.	**4**
2.	Basic media preparation technique, autoclaving, cleaning and sterilization of glass ware.	6
3	Preparation of liquid culture media- Peptone water, nutrient broth	2
4.	Preparation of solid culture media – Nutrient agar (agar slant/ agar plate)	2
5.	Isolation of microbes from water , soil and air by serial dilution agar plating method.	3

Part A- Introduction			
Program:Certificate	**Class**:B.Sc.IYear	**Year**: 2022	**Session**: 2022-2023
Subject: Physics			
Course Code	S1-PHYS2T		
. Course Title	**Mechanics and General Properties of Matter**		
Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective		
Pre-requisite (if any)	To study this course, a student must have had the subject Physics in 12" class.		
Course Learning Outcomes (CLO)	. 1. The course would empower the students to develop the idea about the behavior of physical bodies. 2. It will provide the basic concepts related to the motion of all the objects around us in daily life. 3. The students would be able to build foundation to various applied field in science and technology especially in the field of mechanical engineering. 4. The students will acquire the knowledge of basic mathematical methods to solve the various problems in physics. 5. The students will be able to understand the relativistic effect and the relation between energy and mass.		
Credit Value	2		
Total Marks	Max. Marks: 60+40	Minimum passingMarks: 35	

Part B- Content of the Course		
Total numbers of Lectures(in hours):60		
Unit	**Topics**	**Numbers of Lectures**
1	**Historical background and Mathematical Physics** 1. **Historical background:** 1.1. A brief historical background of mathematics and mechanics in the context of India and Indian culture. 1.2. A brief biography of Varahamihira and Vikram Sarabhai with their major contribution to science and society. 2. **Mathematical Physics:** 2.1. Scalar and vector fields, Gradient of a scalar field and its physical significance. 2.2. Vector integral: line integral, surface integral and volume integral, Divergence of a vector field and its physical significance, Gauss divergence theorem. 2.3. Curl of a vector field and its physical significance, Stokes and Green's theorem, Numerical problems based on the above topics. **Keywords/Tags:** Scalar field, Vector field, Vector integral, Gradient, Divergence, Curl.	12
II	**Mechanics of Rigid and deformable bodies** **1. Rigid body mechanics:** 1.1. System of particles and concept of rigid body, Torque, centre of mass: position of the centre of mass, Motion of the centre of mass, Conservation of linear & angular momentum with examples, Single stage and multistage rocket. 1.2. Rotatory motion and concept of moment of inertia, Theorems on moment of inertia: theorem of addition, theorem of perpendicular axis, theorem of parallel axis, Calculation of moment of inertia of rectangular lamina, disc, solid cylinder, solid sphere. **2. Mechanics of deformable bodies:** 2.1. Hooks law, Young's modulus, Bulk modulus, Modulus of rigidity and Poisson's ratio, Relationship between various elastic moduli. 2.2. Possible values of Poisson's ratio, Finding Poisson's ratio of rubber in the laboratory, Torsion of a cylinder, Strain energy of twisted cylinder. 2.3. Finding the modulus of rigidity of the material of a wire by Barton's method, Torsional pendulum and Maxwell's needle, Searl'smethod to find Y, η and σ of the material of a wire, Bending of beam, Cantilever, Beam	12

	supported at its ends and loaded in the middle. **Keywords/Tags:** Rigid body, Centre of mass, Moment of Inertia, Poisson's ratio.	
III	**Fluid mechanics** **1. Surface Tension:** 1.1. Inter-molecular forces and potential energy curve, force of cohesion and adhesion. 1.2. Surface tension, Explanation of surface tension on the basis of intermolecular forces, Surface energy, Effect of temperature and Impurities on surface tension, Dally life application of surface tension. 1.3. Angle of contact, The pressure difference between the two sided of a curved liquid surface, Excess pressure inside a soap bubble, Capillarity, determination of surface tension of a liquid capillary rise method, Jaeger's method. **2. Viscosity:** 2.1. Ideal and viscous fluid, Streamline and turbulent flow, Equation of continuity, Rotational and Irrational flow, Energy of a flowing fluid, Euler's equation of motion of a non-viscous fluid and its physical significance. 2.2. Bernoulli's theorem and its applications (Velocity of efflux, shapes of wings of airplane, Magnus effect, Filter pump, Bunsen's burner) 2.3. Viscous flow of a fluid, Flow of liquid through a capillary tube, Derivation of Polseuille's formula and limitations, Stocks formula, Motion of a spherical body falling In a viscous fluid. **Keywords/Tags:** Inter-molecular force, Surface tension, Angle of contact, Capillarity, Viscosity, Euler's equation, Polseulle's formula	**12**

Part A- Introduction			
Program: Certificate	**Class**: B.Sc. I [illegible] Sem	**Year**: 2022	**Session**: 2022-23
Subject: Physics			
Course Code	S1-PHYS2P		
. Course Title	**Mechanics and General Properties of Matter Lab**		
. Course Type Core/Elective/ Generic Elective/Vocational/...	Elective		
Pre-requisite (if any	To study this course, a student must have had the subject Physics in 12" class.		
Course Learning Outcomes (CLO)	1. The students would acquire basic practicalknowledge related to mechanics through theexperiments. 2. Students will be familiar with variousmeasurement devices by which they can measurevarious physical quantities with accuracy. 3. The students will develop the concept related tothe mechanics and properties of matter.		
Credit Value	2		
Total Marks	Max. Marks: [illegible] 60+40	Min passing Marks :. 35	

Part B- Content of the Course		
Total numbers of Lectures(in hours):60		
Sr.No	**List of experiments**	**Number of Practical (in hours)**
1	Determination of Young's modulus, modulus of rigidity andPoisson's ratio of material of a wire using Searle's method.	30
2	Determination of Young's modulus of material of a metallic barby bending of beam method.	
3	Determination of acceleration due to gravity (g) using Bar pendulum.	
4	Determination of acceleration due to gravity (g) using Kater'sreversible pendulum.	
5	Determination of modulus of rigidity of a rod with the help ofBarton's apparatus.	
6	Determination of coefficient of viscosity of liquid usingPoiseuille's method.	
7	Determination of the moment of inertia of a flywheel about its axisof rotation	
8	Determination of the moment of inertia of a given body (irregularbody) with the help of inertia table.	
9	Verification of laws of the parallel/perpendicular axes of momentof inertia.	

	Part A Introduction			
Program Certificate Course		**Class: B.SC.**	**Year : FIRST** Sem	**Session :2022-2023 onwards**
	Subject : ZOOLOGY			
1	**Course Code**		S1-ZOOL2T	
2	**Course Title**		**Cell biology, reproductive biology and developmental biology**	
3	**Course Type**		ELECTIVE	
4	**Pre- requisite (if any)**		To study this course a student must have had the subject Biology in class 12th.	
5	**Course Learning outcomes (CLO)**		After completing this course in ZOOLOGY, a student shall have understanding of. • Develop deeper understanding of what life is and how it functions at cellular level. • Understand the nature and basic concepts of cell biology, Reproductive and Developmental biology. • Understand structure and functions of cell membrane, and cellular organelles. • Understand the importance of latest reproductive trends, reproductive techniques to be applied for human welfare. • Understand the general patterns and sequential developmental stages during embryogenesis;& understand how the developmental processes lead to establishment of body plan of multicellular organisms. • Understand the the evolutionary development of various animals.	
6	**Credit Value**		2	
7	**Total Marks**	Maximum Marks: 60+40		Minimum Passing Marks: 35
	Part B- Content of the Course			
	Total no of Lectures –60 organisms **Lectures- Tutorials- practical (in hours per week) L-T-P:4-0-0**			
Unit	**Topics**			**No. of Lectures**

I	**Cell biology:** **1.1** Concept of prokaryotic and eukaryotic cell, difference between prokaryotic and eukaryotic cells. **1.2** Structure and functions of plasma membrane **1.3** Structure and functions of Golgi body, Mitochondria, Endoplasmic reticulum, ribosomes and lysosomes. **1.4** Structure and functions of Nucleus. **1.5** Structure and functions of Chromosomes and special types of chromosomes- Lamp brush and Polygenes chromosomes. **1.6** Cell cycle, Mitotic & Meiotic cell division and their significance. **Keywords:** Prokaryote, Eukaryote, cell organelles, chromosomes, cell cycle.	13
II	2. **Reproductive Biology:** **1.1** Structure of Male reproductive system of Lupus. **1.2** Structure of Female reproductive system of Lupus. **1.3** Histology of testis, and Ovary of Lupus. 1.4 Gametogenesis- Spermatogenesis and oogenesis, difference between spermatogenesis and oogenesis. 1.5 Types of Eggs- based on amount and distribution of yolk with examples. **Keywords**: Reproductive system, Gametogenesis, sperms, eggs.	13
III	**Recent assisted Reproductive Techniques (ART):** **3.1** Stem cell- Types and their uses. **3.2** Gene bank, sperm bank, superovulation, cryopreservation. **3.3** In Vitro Fertilization (IVF) and Embryo Transfer (ET), Zygote. **3.4** Placentation- Types, examples and functions. **3.5 Placenta** Banking- placenta preservation benefits. **Key words:** Gene bank, sperm bank, superovulation, IVF, ET.	15
IV	**4. Developmental Biology:**	11

Part A Introduction

PRACTICAL SYLLABUS

Program Certificate Course	Class: B.SC.	Year : FIRST Sem	Session :2022 2023 onwards

Subject: ZOOLOGY

1	Course Code	S1-ZOOL2P
2	Course Title	CYTOLOGY, REPRODUCTIVE BIOLOGY & EMBROLOGY
3	Course Type	ELECTIVE
4	Pre- requisite (if any)	To Study this course a student must have had the subject
5	Course Learning outcomes (CLO)	On completion of this course, learners will be able to understand: • The different stages of mitotic and meiotic cell division and special types of chromosomes. • Different stages of embryology. • Through squash preparations understand the stage of cell division and structure of polygene chromosomes. • Enhance collaborative learning and communication skills through practical sessions, team work group discussion assignments & projects.
6	Credit Value	2
7	Total Marks	Maximum Marks: 50 + 40 / Minimum Passing Marks: 35

Part B – Content of the Course

Total No. of Lectures:30

Lectures – Tutorial – Practical (In hours per week): L-T-P: 0-0-2

Unit	TOPICS	No. of Lab Hours
1.	Spotting related to the cytology a. Prokaryotes and Eukaryotes cell b. Stages of mitotic cell division c. Stages of meiotic cell division d. Lamp brush chromosomes.	13
2.	Spotting related to Reproductive biology & Embryology a. T.S. Testis of Mammal	13

	b. T.S. Ovary of Mammal c. Development stages of frog Embryology d. Developmental stages of Chick embryology.	
3	Squash preparation of onion root tip to understand the stages ofMitotis	8
4	Squash preparation of Grasshopper testis to understand the stage of Meiosis	9

Part A Introduction

Programme: Certificate Class:B.Com 1 St Sem Session 2022-23	
Subject	Commerce
Course Code	**C1-COMA1G**
Course Title	Basics Of Business Studies
Course Type	Elective
Pre-Requiste	Not Required Open For All
Course Objectives	To impart basic knowledge of the basiiness relevant to business activities.
Course Learning Outcomes	The Successsful completion of this course shall enable the students : • The course will be helpful to provide basic knowledge of business. • Student will be capable to understand business ethics to guide corporate sector and feel and perform its responsibilty towards society. • Student will be capable to understand ethical aspect of business, banking system, banking procedure. • Student will be capable to understand practivcal banking insurance system, insurance procedure, stock exchange system, • To help them for employment in related field.
Credit Value	4
Total Marks	Max Marks: Minimum Passing

	60+40	Marks:- 35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)3		
Unit	Topic	Lectures
I	Concept Of Business : historical background of business in india. meaning and objectives of business industry, trade and commerce. business sectors: goods and service sectors. Concept and salient features of sole trade,partnership,LLP, and co-operative society, meaning, features, types of joint stock company. online business: need importance, limitations, process, dangers and precautions.	12
II	Business Ethics: historical background of business ethics in india, concept and significance of business ethics, balancing between objectives of business and ethics of business, evaluation of business ethics in india. Corporate Social Responsibily(CSR) historicqal cackground of CSR, concept, objectives, and inportance of CSR, contribution of indian corporate sector under csr, evaluation of CSR in india.	12
III	Banking: historical backgroung, classification of bank, meaning, definition and functions of commercial banks, role of economics frowth , features of indian banking system. Bank Deposits: meaning and types, features of bank account, procedures to open and close bank accounts(including online procedures. Loans And Advances: principles to sanction loans and advances. classification of loans and advances, procedures to apply for house loan, personal loan, evaluation and commercial loan..	12

Part A Introduction

Programme: Certificate Class:B.Com 1 st Sem Session 2022-23		
Subject	Commerce	
Course Code	C1-COMB2G	
Course Title	Fundamental Accounting	
Course Type	Elective	
Pre-Requiste	Not Required Open For All (Except The Student Of Commerce)	
Course Objectives	To understand the meaning of accounting, accountanvy, To understand the terms insed in accounting system To know how the accounting system for non profit orgsanization..	
Course Learning Outcomes	After the completion of the course, wstudent will be able to 1. To record the basic journal entries 2 Memorize how to calculate depreciation by applying various methods 3. Maintain the financial statement of a business entity 4. rectify errors in account.	
Credit Value	4	
Total Marks	Max Marks: 60+40	Minimum Passing Marks: 35

Part B Content Of The Course

Total No. of Lectures-90 (In Hour Per Week)3		
Unit	Topic	Lectures
I	Accounts: history, definition, development, objective, basic concept, principles assumptions and convension of accounting.	10
II	Principles of double entry system, preparation journal, subsidiary books, preparation of ledger.	15
III	Preparation Of Trial Balance, Rectification Of Errors	10

Sri SatyaSai University of Technology & Medical Sciences, Sehore (M.P.)

Programme: Certificate Class:B.Com 1 St Sem Session 2022-23		
Subject	Rural Banking	
Course Code	A1-RBAN2G	
Course Title	Banking Institutions in India	
Course Type	Elective	
Pre-Requiste	No pre-requisite	
Course Objectives	To understand the meaning of Rural Banking, To Understand The Terms Of Banking Institutions in india	
Course Learning Outcomes	After the completion of the course, wstudent will be get to 1. student will be gain a strong understanding about the banking structure in india. 2. student will be get aquainted with regulatory structure of banking sector in india 3. students will be understand about various banking institutions including rural banking institutions alon with their basic functions and their role in economic development. 4. student will be gain a deeper insight about emerging trends in banking in india.	
Credit Value	4	
Total Marks	Max Marks: 60 + 40	Minimum Passing Marks:35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)2		
Unit	Topic	Lectures
I	Introduction: structure of indian banking system, origin and evaluation of banks, concept ,definition, and importance of bank, primary and secondary functions of bank, role of banks in economic development, prodpectus and challanges of indian banking system..	12
II	Regulatory Institutions: objectives of central bank and its role in economy, reserve bank of india, (RBI)-organisation, objectives, role, functions, credit creation and control, banking sector reforms, banking regulation act,1949, new licensing policy(RBI).	12
III	Banking Institutions: types of banks- objectives, structire, functions of commercial banks, (public, private and foreign banks,), development bank, payments bank, small finance banks, indigenous banks, role of banking institutions in economic developments, prospectus and chalanges of banking institutions in india.	12

Part A Introduction

Programme: Certificate Class:B.Com 1 St Sem Session 2022-23	
Subject	Rural Banking
Course Code	A1-RBAN1G
Course Title	Money& Banking
Course Type	Elective
Pre-Requiste	No pre-requisite
Course Objectives	To understand the meaning of Rural Banking, To understand the terms of Money and Banking
Course Learning Outcomes	After the completion of the course, wstudent will be able to 1. Understand about the origin of money and banking 2. Learn about concept of money, its functions, value, money market and monetary policy operations. 3. Understand about various banking institutions along with their basic functions and their credit creation role. 4. Understand about the central bank of our country and assess the objectives and functions of reserve bank of India (RBI) 5.Also analyze the banking sector reforms and gauge at the recent trents in banking system In India.

Credit Value	4	
Total Marks	Max Marks: 60+40	Minimum Passing Marks: 35

Part B Content Of The Course

Total No. of Lectures-60 (In Hour Per Week)2		
Unit	Topic	Lectures
I	Money: Meaning, functions, and classification: concept, definition, functions and importance of money classification of money, role of money in capitalist, socialist and mixed economies. essecial quality of good money, money aggregates, paper money- meaning, forms, principles & methods of note issue in india. gresham's law. demonetization.	12
II	Value Of Money And Economic Functions: theories of value money- quantity theory of money, fisher's and canbridge equations and income theory, economic fluctusations- inflation and deflation of money stagflation.	12
III	Money Market And Monetary Policy: finctions and importance of money market, indian money market, monetary policy, and its objectives, indicators and instruments of monetary policy, monetary policy in an open economy, current monetery policy in india.	12

Part A Introduction

Programme: Certificate Class: B.Com 1 st Sem Session 2022-23		
Subject	Business Organization And Management	
Course Code	C1-COHB1G	
Course Title	Business Organization And Management	
Course Type	Elective	
Pre-Requiste	No pre-requisite	
Course Objectives		
Course Learning Outcomes	After the completion of the course, wstudent will be able to CO1: Develop a basic understanding about business organization and its forms. CO2: develop rudimentary concept of plant location, layout and size of business units and their respective importance in the practical world. CO3: acquire an understanding of business combinations rationalization and nationalization. CO4: gain insight into the management process and its functions of planning, organization, staffing, directing, and control.	
Credit Value	4	
Total Marks	Max Marks: 60+40	Minimum Passing Marks 35

Part B Content Of The Course

Total No. of Lectures- (In Hour Per Week)L/T/P:4/0/0		
Unit	Topic	Lectures
I	Business Organization & Its Forms Business concept, meaning, features, stages of development of business, importance of business, classification of business activities. Business Organization: meaning,characteristics, objectives, evolution of business organization,difference between industry and commerce and business and profession, modern business and its characteristics. Forms Of Business: sole trader, partnership, HUF, limited liability partnership, joint stock company, one person company, micro, small amd medium enterprises..	18
II	plant location and layout and size Plant Location:concept, importance, factors affecting plant location, plant layout, : concept objectives, types and principles of layout, factors affecting layout, size of business unit: criteria for measuring the size of unit, factors affecting optimum size.	18
III	Business Combination Meaning, characteristics, objectives, causes, forms and kimds of business combination, rationalization, & nationalization,	18

Sri SatyaSai University of Technology & Medical Sciences, Sehore (M.P.)

Part A Introduction

Program: Certificate	**Class B.A. (Plain) I** Sem	**Year:2022**	**Session:2022-2023**
Course Code	**A1-ECON-2G**		
Course Type (Core Course/ Elective Course	**Elective Course**		
Course Tittle	**Indian Economy- An Introduction (Economics)**		
Credit Value	**04**		
Total marks	**Max. Marks :** 60+40		**Min. Passing in Marks:** 35
Course Objectives:	**CO-1**. The main objective of this paper is to introduce the student to basic understanding of the Indian economy and measurement of various macro-economic variables. **CO-2**. Students will be able to evaluate the consequences of economic activities on institution, individual and social welfare. **CO-3**. To make awareness among the students about various economic issues in India. **CO-4**...Organizing social and economic activities such as business club, exhibitions, effective salesmanship, and business fair for development of commercial attitude among the students		
Course learning out comes:- CLO	After completing this, students will be able to under the basic concepts of the Indian economy .they will be familiar with the issues related to Agriculture, Industry, Foreign Trade, economic Planning and various economic problems of India .They Will also be able to able to understand the various issues of Madhya Pradesh Economy		

Part B- Course Contents:		
Total No of Lectures-Tutorials – Practical (in hours per week): **3 hours**		
UNIT	**Topics**	**No of Lectures**
I **Introduction**	1. Characteristics of Indian economy 2. Trends and Sectorial Composition of National Income 3. Sectorial Distribution of work force 4. Nature Resources Endowments :- land ,water Livestock forest and mineral Resources 5. Demographic Features: Population. Composition size and Growth Rates 6. Problems and causes of over Population and Population policy	**12 Lectures**
II **Agriculture**	**1.** Nature and Importance Characteristics of Indian Agriculture **2.** Trends in Agriculture Production and Productivity **3.** Green Revolution – Objectives achievements and failures 4. Agriculture: Finance and Insurance 5. Agriculture Marketing	**12 Lectures**
III **Industry and foreign trade**	1.Industrial Development of India after Independence 2. New Industrial Policy of 1991 3. Role of Public sector in Industrialization 4. MSME- Definition, Characteristics and its Role Problems and Remedies of small – scale 5. and cottage industries 6. Start up India and Make in India Aatm Nirbhar Bharat	

PART A INTRODUCTION				
Program: Certificate		Class: BA I	Year: 2022	Session: 2022-23
Subject: History				
1	Course Code	A1-HIST-2G		
2	Course Title	Constitutional History of India		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/….)	Elective		
4	Pre-requisite (if any)	This course can be opted by any student who has passed 12th class.		
5	Course Learning outcomes (CLO)	Students will analyze the salient features of the constitutional development during Company's Rule in India from 1773 - 1857 and to assess their impact on the freedom struggle of India. They will know about the influence of the British Crown on India. They will be able to write a detailed essay on the various acts passed during the Crown's period in India from 1858- 1947 and their impact on the socio political life of India. Students will be able to critically examine the major reforms by the British Government in India and highlight their salient features. They will gain the knowledge of Indian Constitution.		
6	Credit Value	04		
7	Total Marks	Max. Marks: 60+40	Min. Passing Marks: 35	

PART B- CONTENT OF THE COURSE

Total No. of Lectures-Tutorials-Practical.(in hours per week) : L-T-P : 2 H/W

Unit	Topics	No. of Lectures
I	Constitutional Development During Company's Rule (1773. 1793) Regulating Act of 1773 : causes for the passing of the Regulating Act, main provisions of the Act. Bengal Judicature Act 1781,' Iiiditati Bill of Dundas 1783, Fox India Bill 1783, Pitt's India Act of 1784, ClaitekAdt 1793.	12
II	Constitutional, Development During Company's Rule.(1833-1854) Charter Aclof 1813: main provisions of the Act; Charter Act of 1833-background, main provisions, Charter Act of 1853 - background, main provisions of the Act, significance of the Act, Government of India Act 1854.	12

III	Constitutional Development during the Rule of the Crown Government of India Act, 1858 - Background, main provisions of the Act, evaluation of the Act, Queen Victoria's Proclamation Letter', significance of the proclamation. Indian Council Act 1861- causes for the passing of the Act, provisions of the Act, provisions related to Provincial Legislative Assemblies defects of the Act, significance of the Act, Indian Council Act 1892 - causes for passing of the Act, main provisions of the Act, defects of the Act, significance of the Act.	12
IV		

Part A- Introduction			
Program : Certificate	**Class**:B.A I Year	**Year** : 202	**Session** : 202 -202
Subject : Generic English			
Course Code	A1-ELIT-1G		
Course Title	**Communication English (Paper, Theory + Tutorial)**		

Course Type (Core/Elective/ Generic Elective/Vocational/...)	Elective	
Pre-requisite (if any)	This course can opted as an elective by the students of following subjects: Class 12 passed in any discipline /Open for all	
Course Learning Outcomes (CLO)	1.The study of the course will enable the students to acquire the knowledge of Phonology and morphology syntax and structure Vocabulary and discourse. 2.The students will be able to converse in real life situations effective language skills the cost will also help them Acquire literacy sense. Use atomic and lexical language effectively across the globe	
Credit Value	4(3+1)+0=4	
Total Marks	Max. Marks: 25+75	Minimum passingMarks:33

Part B- Content of the Course

Total No. of Lectures- Tutorials-Practical (in hours per week):1.5+0.5+00=02 L-T-P:45+15+00=60

Unit	Topics	No. of Lectures +No of Tutorials
1	**Communication** 1.1 What is communication? Its meaning types and its purpose in the age of Globalization. 1.2 Communicative needs and problems. 1.3 Expansion of an idea 1.4 Rules of use of language use of appropriate words Keywords/ Tags: Linguistic and communicative competence .Communication effective and cognitive strategies ESL. EFL. acquisition of L1 L2 and Collocational language	10+03
II	**Practicing listening skills reading and understanding skills** 2.1 Listening to Radio and TV news, discussions and comprehension rules of grammar, speech of speech, pronunciation and intonation melodic parts of and Utterance variation of speech. 2.2 Reading newspapers, analysis and interpretation 2.3 IPA and phonetic symbol	10+04

	2.4 Précis writing and paraphrasing 2.5 Vocabulary enrichment Keywords/Tags: LRWS. Receptive skills. Attentive listening. Word stress. Syllable. Received pronunciation(RP). Summarizing pragmatic competence.	
III	**Practicing writing speaking skills** 3.1 Formal and informal writing of letter and invitation, meeting minutes, official orders and appointment creative writing listening to talks and presentation, note making tips. 3.2 Communicative approach lexical approach task based learning. 3.3 Report writing story writing daily routine in English 3.4 Situational conversation between two friends on different topics . Keyword/Tags Productive skills code mixing. Situational conversation. Structural English. Frequent use of proverbs, phrases and idioms.	**15+04**

Text Books, Reference Books, Other resources

Suggested Readings:

1 . A communicative grammar of English" Leech Geoffrey, and Jan Svartvik Routledge, 2003 Third edition.

2. CLT for ESL Teachers and Learners" Gautam .GS. Classical Publishing Company, New Delhi India 2012 First ed.

3. Communicative English for Globalization" Gautam GS .Classical Publishing Company, New Delhi India 2030 First edition.

4. Communicative English language skills Sumi Sumague Juheta Arjuna Society Publishing 2020.

5. Communicative Methodology in Language Teaching Brumfit C Cambridge University Press 1984.

6. Language Teaching a Scientific Approach" Lado Robert, McGraw -Hill New York 1964.

7. Motivation -The Teacher's Responsibility" Allwright. Dick ELTS Journal 31st 4 1977..

8. Problems and Principles in Language Teaching Brumfit C Pergamon Institute of English 1980.

9. The Learner -Centred Curriculum" Nunan D Cambridge University Press 1988.

भाग – अ – परिचय			
कार्यक्रम : प्रमाण-पत्र	कक्षा : प्रथम सेम I	वर्ष : 2022	सत्र 22-23
विषय : प्रयोजनमूलक हिंदी (Functional Hindi), प्रश्न पत्र प्रथम (वैकल्पिक)			

1	पाठ्यक्रम का कोड	A1-FHIN-1G
2	पाठ्यक्रम का शीर्षक	हिन्दी और विज्ञापन व्यवसाय
3	पाठ्यक्रम का प्रकार	जेनेरिक (Generic Elective)
4	पूर्वापेक्षा (Prerequisite)	इस कोर्स का अध्ययन करने के लिए, छात्र ने किसी भी संकाय/विषय में कक्षा 12वीं अथवा समकक्ष परीक्षा उत्तीर्ण की हो। (Open for all)
5	पाठ्यक्रम अध्ययन की परिलब्धियां (कोर्स लर्निंग आउटकम) (CLO)	आज के वैश्वीकरण एवं बाजारवाद के दौर में विज्ञापन एक सशक्त माध्यम के रूप में उभरकर सामने आया है। विज्ञापन का क्षेत्र अत्याधिक व्यापक एवं बहुआयामी है। न केवल उत्पादन कंपनियों द्वारा वस्तु का प्रचार-प्रसार किया जा रहा है बल्कि जनकल्याण, शैक्षणिक संस्थाओं एवं सूचनाओं के प्रचार-प्रसार में भी विज्ञापनों की महती भूमिका है। हिन्दी आज बाजार की जरूरत बन गयी है। हिन्दी बोलने-समझने वालों की संख्या में आशतीत वृद्धि होने के कारण विपणन-कंपनियों को अपने उत्पाद बेचने के लिए हिंदी में तैयार विज्ञापन की अत्यंत आवश्यकता है। हिंदी भाषा के माध्यम से विभिन्न जनसंचार माध्यमों में विज्ञापन व्यवसाय द्वारा रोजगार की अपार संभावनाएं हैं। विज्ञापन की अवधारणा, आवश्यकता, निर्देश व सिद्धान्त, विज्ञापन-लेखन की रचना-प्रक्रिया से विद्यार्थी को परिचित कराना ही इस पाठ्यक्रम के अध्ययन-अध्यापन का प्रयोजन है। **पाठ्यक्रम के अध्ययन से –** 1. इस पाठ्यक्रम के अध्ययनोपरांत विद्यार्थी को प्रिंट मीडिया, इलेक्ट्रॉनिक मीडिया, विज्ञापन एजेंसियों व अन्य संस्थाओं में विज्ञापन-लेखन के माध्यम से रोजगार के अवसर उपलब्ध हो सकेंगे। 2. विभिन्न प्रकार के विज्ञापनों से संबंधित स्लोगन, गीत, जिंगल-लेखन, तुकांत कविता, रेखाचित्र, बैनर, पोस्टर, रंग-संयोजन, कैलेंडर निर्माण आदि के कौशल का विकास

		विद्यार्थी में हो सकेगा। 3. अपने देश समाज एवं क्षेत्र विशेष के उपभोक्ता की रुचि, क्रय-शक्ति एवं वस्तु की मांग से विद्यार्थी विज्ञापन-लेखन के दौरान परिचित होगा, जिससे उसमें विश्लेषण क्षमता का विकास हो सकेगा। 4. विज्ञापन की तथ्यात्मक बनाने के लिए विद्यार्थी विभिन्न उत्पाद कंपनियों के उत्पादों की जानकारी प्राप्त करने का प्रयास करेगा जिससे उसमें तुलनात्मक एवं तार्किक विवेचन की क्षमता का विकास होगा, जिससे वह स्वयं का व्यवसाय आरंभ करने के लिए भी प्रेरित हो सकेगा। 5. विज्ञापन-लेखन के अभ्यास से विद्यार्थी में कल्पनाशीलता, रचनात्मक एवं भाषा के विविधता भरे कौशल की अभिवृद्धि होगी।	
6	क्रेडिट मान	सैद्धान्तिक – 4	
7	कुल अंक	अधिकतम अंक 60+40	न्यूनतम उत्तीर्ण अंक : 35.

भाग – ब – पाठ्यक्रम की विषयवस्तु

व्याख्यात की कुल संख्या – ट्यूटोरियल – प्रायोगिक (प्रति सप्ताह घंटे में) : 3 घण्टे प्रति सप्ताह (L-T-P : 3-0-0)

कुल व्याख्यान : 60

इकाई	विषय (Topics)	व्याख्यान की संख्या
I	विज्ञापन : अर्थ, परिभाषा एवं विशेषताएँ। विज्ञापन का उद्देश्य, आवश्यकता एवं महत्व। विज्ञापन और व्यापार का संबंध। विज्ञापन का इतिहास और विकास। विज्ञापन : कानून और आचार संहिता।	15
II	विज्ञापनों का वर्गीकरण, विज्ञापन के प्रमुख अंग और आधारभूत सिद्धान्त। विज्ञापन – निर्माण की प्रविधि : प्रारूप-निष्पादन,	15

	अभिकल्पना (डिजाइन) और अभिविन्यास (ले-आउट)। विज्ञापन-भाषा की विशिष्टताएँ एवं भाषा-संरचना।	

Part A Introduction			
Program : Certificate	Class:B.A.1st Sem	Year: 2022	Session :2022-2023
Subject : Psychology			
1	Course Code	A1-BECO-1G	
2	Course Title	**Organizational Behavior**	
3	Course Title (Core Course/Elective /Generic Elective /Vocational/…….	**Elective**	
4	Pre- requisite (if any)	-	
5	Course Learning outcomes (CLO)	The course will enable the students t develop an understanding of the principles of human behavior in organizations with relevance of the Indian business context.	
6	Credit Value	Theory - 4	
7	Total Marks	Max. Marks: 50+4p Min. Passing Marks: 35	

Part B

Content of the Course-GE Subject-I (Organizational Behavior)

Total No. of Lectures –Tutorials –Practical (in hours per week):

Total No. of Lectures=90

Unit	Topics	No. of Lectures
Unit I	INTRODUCTION: Concept of Organizational behaviour(OB); Management roles, skills and activities; Disciplines that contribute to OB; Opportunities for OB(Globalization, Indian workforce diversity, customer service, innovation and change, networked organizations, work-life balance, people skills, positive work environment, ethics	12
Keywords /Tags : Organizational Behavior(OB); Globalization; Innovation; change; Networked organizations; Work-Life balance; people skills; Environment; ethics		
Unit II	**INDIVIDUAL BEHAVIOUR:** **1. Learning, attitude and job satisfaction:** concept of learning, conditioning, shaping and reinforcement. Concept of attitude, components, behavior and attitude. Job satisfaction: causation; impact of satisfied employees on workplace. **2.Motivation:** Concept, Theories(Hierarchy of needs, X and , Two factor, McClelland, Goal setting, Self-efficacy, Equity theory); Job characteristics model; Redesigning job and work arrangement; Employee involvement; Flexible benefits, Intrinsic rewards **3.Personality and Values:** Concept of personality; Myers-Briggs Type Indictor(MBTI); Big Five model. Relevance of values; Indian values; Linking personality and values to the workplace(person-job fit, Person-organization fit) **4. Perception, Decision Making and Emotions:** Perception and Judgments; Factors; linking perception to individual decision making; Decision making in organizations, Ethics in decision making, Emotional labour; Emotional Intelligence	13

Keywords /Tags : Learning; Attitude; Job satisfaction ; Motivation; personality; values; perception; decision making emotions		
III	**GROUP BEHAVIOUR:** **1.Group and Work Teams:** Concept; five stage model of group development; Group think and shift; Indian perspective on group norms. Groups and teams; Types of teams; Creating team players from individuals; Team building and team based work(TBW) **2. Leadership:** Concept; Trait Theories; Behavioral Theories(Ohio and Michigan studies); Contingency theories(Fiedler, Hersey and Blanchard, Path-goal); Authentic leadership; Mentoring, Self leadership, online leadership; Inspirational Approaches(transformational, Charismatic); Comparison of Indian Leadership styles with other countries. Exercises, games and role plays may be conducted to develop team and leadership skills	*11*
Keywords /Tags : Groups, Work teams; Leadership		

Part A Introduction			
Program: Certificate/Diploma/ Degree	**Class: B.A. 1st sem**	**Year: 2022**	**Session :2022-2023**
Subject : Political science			

1	**Course Code**	A1-POSC-1G
2	**Course Title**	**Indian political system**
3	**Course Title (Core Course/Elective /Generic Elective /Vocational/…….**	**Elective**
4	**Pre- requisite (if any)**	To study this course, a student must have passed 12 th Student of any subject can study this course.
5	**Course Learning outcomes (CLO)**	1. Students will be able to understand nature of Indian political System and its determinates. 2. They will be able to answer questions related to the functions and role of the president, prime Minister, parliament and Supreme Court, party system in the institutional settings of Indian political system. 3. They will be a able to understand basic problems of Indian political system. 4. They will be able to identity the challenges of Indian political system.
6	**Credit Value**	Theory-4
7	**Total Marks**	Max. Marks; 60+40 / Min. Passing Marks: 35

Part B- Content of the Course

Total no of Lectures –Tutorials –Practical (in hours per week): 4 hours per week
Total Lectures - 60 hours

Unit	Topics	No. of Lectures
I	**Fundamentals of India Indian political system** 1. Nature of Indian political system. 2. Determinants of Indian political system. 2.1 Salient Features of Indian Constitution 2.2 preamble 2.3 fundamental rights 2.4 Directive principles of state policy 3. Federal system 4. Parliamentary system	23

II	**Institutional setting of Indian political system** **1.** Role of functions of president , prime Minister and Council of Ministers **2.** Parliament and its working **3.** Supreme Court and judicial Review **4.** Panchayati raj Institutes	23
III	**Problems of Indian political system :**	22

Part A Introduction

Program :certificate Course	Class:B.A.1st Sem	Year: 2022	Session : 2022-23
Subject :Sociology			

1	**Course Code**	A1-SOCI-1G
2	**Course Title**	**Introduction to Sociology**
3	**Course Title (Core Course /Elective /Generic Elective /Vocational/…….**	**Elective**
4	**Pre- requisite (if any)**	This is an elective paper open for all B.A. 1st Year Students, except those who have opted Sociology as core paper.
5	**Course Learning outcomes (CLO)**	1. This course will enhance the conceptual Learning and understanding of the basic concept used in Sociology. 2. The Paper will contribute in enriching the vocabulary and scientific temperament of the student about human society. 3. In this course student will get information about employment opportunities related to the discipline of Sociology. 4. The Course will provide Knowledge about social-cultural processes.
6	**Credit Value**	Theory-4
7	**Total Marks**	Max. Marks; 60+40 Min. Passing Marks: 35

Part B- Content of the Course

Total no of Lectures –Tutorials –Practical (in hours per week): 6 hours per week

Unit	Topics	No. of Lectures
I	**Emergence of Sociology** 1.Tradition of Indian Thinking 2.Sociology 2.1 Meaning 2.2 Scope 2.3 Subject Matter 2.4 Nature 2.5 Importance 3.Development of Sociology 4. Job opportunities in Sociology	10
Keywords /Tags : Emergence of Sociology ,Tradition of Indian Thinking,Development of Sociology , Importance of Sociology, Job opportunities in Sociology		
II	Basic Concepts : 1. Society 2. Relation between Individual and Society 3. Community 4. Institution 5. Association 6. Social Group 7. Status and Role	12
Keywords /Tags : Relation between Individual and Society , Social Structure, Social Group, Social Status, Association in Sociology		

III	**Social Organization and Institutions:** (Concept ,Emergence ,Development, Forms and Challenges) 1. Family 2. Kinship 3. Marriage 4. Caste, Class and Power 5. Race	*12*
Keywords /Tags : Social Organization, Social System, Social Institution, Class, Kinship , Race in Sociology		

Subject: NCC		
1	Course Code	NCC-101T
2	Course Title	NCC Awareness
3	Course Type(Core course/Elective/Generic Elective/Vocational/…)	Elective
4	Pre-requisite (if any)	To study this course ,a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all
5	Course Learning outcomes(CLO)	The students will develop a sense of responsibility and there by display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things.This paper will enable the students to build and develop leadership through communication. The significant relationship between personality traits and leadership will be achieved and executed.
6	Credit value	02
7	TotalMarks	Max.Marks: 60+40 Min.PassingMarks: 35

Part B- Content of the Course

Total numbers of Lectures(in hours per week) :2hours per week
Total lectures:60Hours L-T-P (02-00-00)

Unit	Topics	No of Lectures
I	**History of National Cadet Corps:** • National Cadet corps of Independent india • National Cadet corps Act,1948 • Motto of National Cadet corps • Aims and Objectives. • Emblem,NCCflag.NCC song. • Organization of NCC-Army.Navy and Air Wing. • Training centres of NCC	15
II	**Introduction to Defence Services** • Army, Navy and Air Force. • Organizational Structure in Charts • Regimental Structure: command and control • Badges and Ranks:Army, Navy,Air Force • Honors and Awards.	15
III	**Personality development:**	

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Program: Certificate/Diploma/Degree	Class: 1 Sem	Year:2022	Session:2022-23	
Subject: NCC				
1	Course Code		NCC-101	
2	Course Title	NCC Training		
3	Course Type(Core course/Elective/Generic Elective/Vocational/…)	Elective		
4	Pre-requisite (if any)	To study this course ,a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all		
5	Course Learning outcomes(CLO)	Aim of the Course is to inculcate a sense of discipline, create self confidence and to create a human resource of organized,trained youth and to develop the quality of immediate and implicit the obedience of orders. Trained the youth to meet any medical emergency by giving aid.		
6	Credit value	02		
7	TotalMarks	Max.Marks: 60+40	Min.PassingMarks: 35	

Part B- Content of the Course

Total numbers of Lectures-Tutorials-Practical (in hours per week) :2hours per week
L-T-P:00-00-01

S.No	Topics	No of Lectures	No of Tutorial
UNIT-I	**Drill:** **General and Words of command:Attention,Stand at ease, Stand easy.** **Turning; Right turn,Left Turn and About turn.Sizing, Forming up in three ranks. Numbering and dressing of Troupe.** **Salute in Army,Navy and Air Force,** **Its description and training. Falling out and Dismissing.**	15	

Program:- Certificate/Diploma/Degree/ Course	Class: 1 Sem	Year:202	Session: 2022-23

Subject: National Service Scheme (NSS)

1	**Course Code**	NSS:101	
2	**Course Title**	Concept of National Service Scheme	
3	**Course Type**	Elective	
4	**Pre-requisite (if any)**	To study this course ,a student must have passed 12th with any subject. This course can be opted as an elective and it is open for all	
5	**Course Learning outcomes(CLO)**	**Course Objective:-** 1. Main objective of syllabus is developing the personality and character of the students youth through voluntary community service.It will also help them understand the rich cultural service. It will also help them understand the rich cultural diversity of india and have pride through a better Knowledge of the Country. 2. Understand the community in which they work and their relation. 3. Identity the needs and problems of the community and involve them in problem-solving. 4. Develop capacity to meet emergencies and natural disasters. 5. Practice national integration and social harmony and. 6. Utilize their knowledge in finding practical solutions to individual and community problems. **Learning Outcome:-** To impart hands- on skills in Preparation. Theend of the paper,a student should be able to: 1. Understand the importance of having community problems and their solution. It might help in job opportunity in some Government approved NGOs, and Ministry of youth affairs and Sports. 2. The students can carry out basic information about Community, which in turn and be of great help in disaster management fields. 3. Students can also go for Social Community Courses, Opening opportunities in different social activity related department.	
6	**Credit Value**	**Theory -** 02	
7	**Total Marks**	**Max.Marks:** 60+40	**Min.Passing Marks:** 35

Part B- Content of the Course		
Total numbers of Lectures(in hours per week) :2hours per week **Total lectures: 60 Hours**		
Unit	**Topics**	**No of Lectures**

I	**Introduction and Basic Concepts of NSS:** • History and Philosophy. • Aims and Objectives. • Emblem sign, NSS badge,NSS flag. • NSS song: Lakshya Geet, Sadbhawna Geet, Rastriye yuva Geet. **Key Words:-**Concept of NSS.	15 Hours
II	**Organization of NSS, Regular Activities and Programmes:** • Organization structure of NSS. • Concept of regular activities. • Basis of adoption of village/ slums. • Methodology of conducting survey. • Calendar of NSS activities. • Maintenance of nss work diary. **Key Words:-** Regular Activities.	15 Hours
III	**Day camp,Special camp and Personality development:**	15 HOurs

Part A : Introduction

Program:- Certificate/Diploma/Degree/Course	Class: B.Sc.1 Sem	Year:2022	Session:2022-23

Subject: National Service Scheme (NSS)

1	**Course Code**	NSS:102 P
2	**Course Title**	Project Tool of NSS
3	**Course Type**	Practical/ Project Work
4	**Pre-requisite (if any)**	To study this course ,a student must have passed 12th with any subject. This course can be opted as an elective and it is open for all
5	**Course Learning outcomes(CLO)**	**Course Objective:-** Each student Will Have the option to select two skill-areas out of the list based on the local conditions and opportunities, and will Prepare a report based on field situation. **Learning Outcome:-** To impart hands- on skills in Preparation. The end of the paper,a student should be able to: Project work of NSS will aim to enhance the employment potentiol of the NSS volunteers or, alternately to help them to job opportunities in government approved NGOs,ministry of youth Affairs and Sports.
6	**Credit Value**	**Practical -02**
7	**Total Marks**	**Max.Marks:** 60+40 **Min.Passing Marks:** 35

Part B- Content of the Practical Course

List of Practical/ Project Activity:- **Communication Skill:-** Personality development, communications Skill development, Problem-Solving. **Key Words-** Communication skill project activity.	05
Youth and Community :- Adoption of slum, Survey of slum, Service of Slum, Identification of problems of slum areas. **Key Words-** Youth community project activity.	07 Hours
Youth and Health:- AIDS, Drugs and substance abuse, Home nursing, First Aid, Yoga as a tool for healthy lifestyle etc. **Key words-** Regular activity, project activity.	05 Hours