Revision Exam Syllabus: 2021 - 22

STANDARD-11

பாடத்திட்டம் 2021 – 2022

வகுப்பு : 11 **பாடம்: பொதுத்தமிழ்**

இயல்	பாடப்பொருள்
1	செய்யுள் – யுகத்தின் பாடல் உரைநடை – பேச்சுமொழியும் கவிதை மொழியும் இலக்கணம் – மொழி முதல், இறுதி எழுத்துகள்
2	செய்யுள் – ஏதிலிக்குருவிகள், காவியம், திருமலை முருகன் பள்ளு துணைப்பாடம் – யானை டாக்டர் இலக்கணம் – புணர்ச்சி விதிகள்
3	உரைநடை – மலை இடப்பெயர்கள் ஓர் ஆய்வு செய்யுள் – புறநானூறு துணைப்பாடம் – வாடிவாசல் வாழ்வியல் – திருக்குறள்
4	துணைப்பாடம் – இதழாளர் பாரதி

SYLLABUS 2021-2022

STANDARD: 11 **SUBJECT: GENREAL ENGLISH**

UNIT	CONTENT
1	**Prose** The Portrait of a Lady Poem **Poem** Once Upon a Time **Grammar** Articles and Determiners Tenses
2	**Prose** The Queen of Boxing Poem **Poem** Confessions of a Born Spectator **Grammar** Modals Prepositions
3	**Supplementary** The First Patient (Play) **Grammar** Concord

SYLLABUS 2021-2022

STANDARD: XI **SUBJECT: MATHEMATICS**

UNIT	CONTENT
1. Sets, Relations and Functions	1.1 Introduction 1.2 Sets 1.2.1 Properties of Set Operations 1.4 Constants and Variables, Intervals and Neighborhoods 1.4.1 Constants and Variables 1.4.2 Intervals and Neighborhoods 1.5 Relations 1.5.1 Type of Relations 1.6 Functions 1.6.1 Ways of Representing Functions 1.6.2 Some Elementary Functions 1.6.5 Inverse of a Function 1.6.6 Algebra of Functions 1.6.7 Some Special Functions
2. Basic Algebra	2.1 Introduction 2.3 Absolute Value 2.3.1 Definition and Properties 2.3.2 Equations Involving Absolute Value 2.3.3 Some Results For Absolute Value 2.3.4 Inequalities Involving Absolute Value 2.4 Linear Inequalities 2.5 Quadratic Functions 2.5.1 Quadratic Formula 2.5.2 Quadratic Inequalities 2.7 Rational Functions 2.7.1 Rational Inequalities 2.7.2 Partial Fractions 2.8 Exponents and Radicals 2.8.1 Exponents 2.8.2 Radicals 2.8.3 Exponential Function 2.9 Logarithm 2.9.1 Properties of Logarithm 2.10 Application of Algebra in Real Life

3. Trignometry	3.1 Introduction 3.2 A recall of basic results 3.2.5 Co terminal angles 3.3 Radian Measure 3.3.1 Relationship between Degree and Radian Measures 3.4 Trigonometric functions and their properties 3.4.1 Trigonometric Functions of any angle in terms of Cartesian coordinates 3.4.2 Trigonometric Functions of real numbers 3.4.3 Allied Angles 3.4.4 Some Characteristics of Trigonometric Functions 3.5 Trigonometric Identities 3.5.1 Sum and difference identities or compound angles formulas 3.5.2 Multiple angle identities and submultiple angle identities 3.5.3 Product to Sum and Sum to Product Identities
4. Combinatorics and Mathematical Induction	4.1 Introduction 4.2 Fundamental principles of counting 4.3 Factorials 4.4 Permutations (Theorem 4.1-4.3 without proof) 4.4.1 Permutations of distinct objects 4.4.2 Properties of Permutations. (without proof) 4.4.3 Objects always together (String method) 4.4.4 No two things are together (Gap method) 4.4.5 Permutations of not all distinct objects 4.5 Combinations 4.5.1 Properties of Combinations (without proof) 4.6 Mathematical induction

5. Binomial Theorem, Sequences and Series	5.1 Introduction (Theorem 5.2, 5.3 without proof) 5.4 Finite Sequences 5.4.1 Arithmetic and Geometric Progressions 5.5 Finite Series 5.5.2 Telescopic Summation for Finite Series 5.6 Infinite Sequences and Series 5.6.1 Fibonacci Sequence 5.6.2 Infinite Geometric Series 5.6.4 Telescopic Summation for Infinite Series 5.6.5 Binomial Series
6. Two Dimensional Analytical Geometry	6.1 Introduction 6.2 Locus of a point 6.3 Straight Lines 6.3.1 The relationship between the angle of inclination and slope 6.3.2 Intercepts of a Line 6.3.3 Different Forms of an equation of a straight line 6.3.4 General form to other forms 6.4 Angle between two straight lines 6.4.1 Condition for Parallel Lines 6.4.2 Condition for perpendicular Lines 6.4.3 Position of a point with respect to a straight line 6.4.4 Distance Formulas 6.4.5 Family of lines 6.4.6 One parameter families 6.4.7 Two parameters families 6.5 Pair of Straight Lines 6.5.1 Pair of Lines Passing through the Origin 6.5.2 Angle between Pair of Straight Lines 6.5.3 Equation of the bisectors of the angle between the lines 6.5.4 General form of Pair of Straight Lines
	(*All examples and exercise problems for the content mentioned above**)**

SYLLABUS 2021–2022

STANDARD: 11 SUBJECT: PHYSICS

UNIT	CONTENT	
1. Nature of Physical world and Measurement	1.1	Science - Introduction
	1.1.1	The Scientific Method
	1.2	Physics - Introduction
	1.2.1	Branches of physics
	1.2.2	Scope and Excitement of Physics
	1.3	Physics in Relation to technology and society
	1.5.1	(ii) Measurement of Large distance
	1.5.3	Measurement of Time intervals
	1.6	Theory of errors
	1.6.1	Accuracy and precision
	1.6.2	Errors in measurement
	1.6.3	Error Analysis
	1.6.4	Propagation of errors
	1.7	Significant Figures
	1.7.1	Definition and rules of significant figures
	1.7.2	Rounding off
	1.7.3	Arithmetical operations with significant figures
	1.8	Dimensional analysis
	1.8.1	Dimension of Physical Quantities
	1.8.2	Dimensional quantities, Dimensionless quantities, Principle of homogeneity
	1.8.3	Application and limitations of the method of Dimensional analysis
2. Kinematics	2.1	Introduction
	2.2	concept of Rest and Motion
	2.3.3	Addition of vectors
	2.3.4	Subtraction of vectors
	2.4	Components of a vector
	2.4.1	Vector addition using components
	2.5	Multiplication of vector by a scalar
	2.5.1	Scalar product of two vectors
	2.5.2	The vector product of two vector

	2.5.3	Properties of the components of vector
	2.10	Motion along one dimension
	2.10.1	Average velocity
	2.10.2	Relative velocity in one and two dimensional motion
	2.10.3	Equations of uniformly accelerated motion by calculus method
	2.11	Projectile Motion
	2.11.1	Introduction
	2.11.2	Projectile in horizontal projection
	2.11.3	Projectile under an angular projection
	2.11.4	Introduction to Degrees and radians
	2.11.5	Angular diplacement
	2.11.6	Cicular motion
3. Laws of motion	3.1	Introduction
	3.2	Newton's laws
	3.2.1	Newton's First Law
	3.2.2	Newton's Second Law
	3.2.3	Newton's Third Law
	3.3	Applications of Newton's laws
	3.3.1	Free body diagram
	3.3.2	Particle moving in an inclined plane
	3.3.3	Two bodies in contact on a Horizontal surface
	3.3.4	Motion of connected bodies
	3.3.5	Concurrent Forces and Lami's Theorem
	3.6	Friction
	3.6.1	Introduction
	3.6.2	Static friction
	3.6.3	Kinetic friction
	3.6.4	To move an object- push or pull? Which is easier?
	3.6.5	Angle of Friction
	3.6.6	Angle of repose
	3.6.7	Application of angle of repose
	3.6.8	Rolling Friction
	3.7	Dynamics of circular motion
	3.7.2	Vehicle on a leveled circular road
	3.7.3	Banking of tracks

4. Work, energy and power	4.1	Introduction
	4.1.2	Workdone by a constant force
	4.2	Energy
	4.2.1	Kinetic Energy
	4.2.2	Work- Kinetic Energy
	4.2.3	Relation between Momentum and Kinetic energy
	4.2.4	Potential Energy
	4.3	Power
	4.3.1	Definition of power
	4.3.2	Unit of power
	4.4	Collisions
	4.4.1	Types of collisions
	4.4.2	Elastic collisions in one dimension
	4.4.4	Loss of kinetic energy in perfect inelastic collision
5. Motion of system of particles and rigid bodies	5.1	Introduction
	5.1.1	Centre of mass
	5.1.2	Center of Mass of a Rigid Body
	5.1.3	Center of Mass for Distributed point masses
	5.1.4	Center of Mass of Two point masses
	5.1.5	Center of mass for uniform distribution of mass
	5.2	Torque and Angular Momentum
	5.2.1	Definition of Torque
	5.2.2	Torque about an axis
	5.2.3	Torque and Angular Acceleration
	5.2.4	Angular Momentum
	5.2.5	Angular Momentum and Angular Velocity
	5.2.6	Torque and angular Momentum
	5.3.2	Couple
	5.3.3	Principle of moments
	5.3.4	Center of Gravity
	5.3.5	Bending of cyclist in curves
	5.4	Moment of inertia
	5.4.1	Moment of inertia of a uniform Rod

	5.5	Rotational Dynamics
	5.5.1	Effect of Torque on Rigid Bodies
	5.5.3	Work done by Torque
	5.5.4	Kinetic Energy in Rotation
	5.5.5	Power delivered by Torque
	5.5.6	Comparison of translational and rotational quantities
	5.6.3	Kinetic energy in pure rolling
	5.6.4	Rolling on Inclined plane
6. Gravitation	6.1	Introduction
	6.2.2	Superposition principle for gravitational field
	6.2.3	Gravitational potential energy
	6.2.4	Gravitational potential energy near the surface of the earth
	6.2.5	Gravitational potential v(r)
	6.3	Acceleration due to gravity of the earth
	6.3.1	Variation of g with altitude, depth and latitude
	6.4	Escape speed and orbital speed
	6.4.1	Satellites, orbital speed and time period
	6.4.2	Energy of an orbiting satellite
	6.4.3	Geo- stationary and polar satellite
	6.4.4	Weightlessness weight of an object
	6.5	Elementary ideas of astronomy

PRACTICAL

STANDARD: 11	**SUBJECT: PHYSICS**
Sl.No	**Topic**
1	Moment of inertia of a solid sphere of known mass using vernier callipers.
2	Spring constants of a spring
3	Acceleration due to gravity using simple pendulum.

SYLLABUS 2021–2022

STANDARD: 11 SUBJECT : CHEMISTRY

UNIT	CONTENT	
1. Basic Concepts of Chemistry and Chemical Calculations	1.4	Mole Concept
	1.4.1	Avogadro Number
	1.4.2	Molar Mass
	1.4.3	Molar volume
	1.5	Gram Equivalent Concept
	1.5.1	Equivalent Mass of Acids, Bases,Salts, Oxidising Agents and Reducing Agents
	1.6	Empirical Formula and Molecular Formula
	1.6.1	Determination of Empirical Formula from Elemental Analysis Data
	1.6.2	Calculation of Molecular formula from Empirical Formula
	1.7	Stoichiometry
	1.7.1	Stoichiometric Calculations
		Calculations based on Stoichiometry
	1.7.2	Limiting Reagents
	1.8	Redox Reactions
	1.8.1	Oxidation Number
		Rules to calculate Oxidation Number
		Calculation of oxidation number using the above rules
		Redox reactions in terms of Oxidation Number
2. Quantum Mechanical Model of Atom	2.1	Introduction to atom model
	2.1.1	Bohr atom model
	2.1.2	Limitations of Bohr's atom model
	2.2	Wave particle duality of Matter
	2.2.1	Quantisation of angular momentum and de-Broglie Concept
	2.2.2	Davison and Germer Experiment
	2.3	Heisenberg's Uncertainty Principle

	2.5	Quantum numbers
		Principal quantum number (n)
		Azimuthal quantum number (l) or subsidiary quantum number
		Magnetic quantum number (m)
		Spin quantum number (s)
	2.5.2	Energies of orbitals
	2.6	Filling of orbitals
	2.6.1	Aufbau principle
	2.6.2	Pauli Exclusion Principle
	2.6.3	Hund's rule of maximum multiplicity
	2.6.4	Electronic Configuration of atoms
	2.6.5	Stability of half filled and completely filled orbitals
		Symmetrical distribution of electron
		Exchange energy
3. Periodic Classification of Elements	3.2.1	Modern Periodic Table
	3.3	Nomenclature of Elements with Atomic Number Greater than 100
	3.4	Grouping of Elements based on Electronic Configurations
	3.4.1	Variation of Electronic Configuration along the periods
	3.4.2	Variation of Electronic Configuration in the Groups
	3.5	Periodic Trends in Properties
	3.5.1	Atomic radius
	3.5.2	Ionic radius
	3.5.3	Ionisation energy
	3.5.4	Electron Affinity
	3.5.5	Electro negativity
	3.6	Periodic trends in chemical properties
	3.6.1	Anomalous properties of second period elements
		Diagonal Relationship
	3.6.2	Periodic Trends and Chemical Reactivity

6. Gaseous State	6.1	Introduction
	6.2	The Gas Laws
	6.2.1	Boyle's law (Pressure - volume relationship)
	6.2.2	Charle's law (volume - temperature relationship)
	6.2.3	Gay - Lussac's law (pressure - temperature relationship)
	6.2.4	Avogadro's Hypothesis
	6.3	Ideal gas equation
	6.4	Mixture of gases - Dalton's law of partial pressure
	6.4.1	Graham's law of diffusion
7. Thermodynamics	7.1	Introduction
	7.2	System and Surroundings
	7.2.1	Types of System
	7.2.2	Properties of the System
	7.2.3	Thermodynamic Processes
	7.3	Zeroth law of Thermodynamics
	7.4	First Law of Thermodynamics
	7.4.1	Mathematical Statement of the First law
	7.5	Enthalpy
	7.5.1	Relation between enthalpy 'H' and Internal energy 'U'
	7.5.2	Enthalpy changes for different types of reactions and phase transitions
	7.6	Thermochemical equations (Up to heat of Combustion)
	7.8	Hess's law of constant heat summation
	7.9	Lattice energy
	7.10	Second law of Thermodynamics
	7.10.1	Spontaneity and Randomness
	7.10.1	Standard Entropy Change
	7.10.1	Standard Entropy of formation
	7.10.1	Entropy change accompanying change of phase
	7.11	Gibbs Free Energy
	7.11.1	Criteria for spontaneity of a process
	7.12	Third law of Thermodynamics

11. Fundamentals of Organic Chemistry	11.1	Introduction
		Characters of organic compounds
	11.2	Classification of organic compounds
	11.2.1	Classification based on structure
	11.2.2	Classification based on Functional groups
	11.3	Nomenclature of organic compounds
	11.3.1	IUPAC Rules for Nomenclature of organic compounds (except Table 11.6 Rules for naming of alicyclic compounds)
	11.5	ISOMERISM in organic compounds
	11.5.1	Constitutional Isomerism
	11.5.2	Sterio Isomerism
	11.5.3	Geometrical Isomerism
	11.5.4	Optical Isomerism
12. Basic Concepts of Organic Reactions	12.1	Introduction
	12.1.1	Fundamental concepts or Organic reaction mechanism
	12.1.2	Fission of a covalent bond
	12.1.3	Nucleophiles and Electrophiles
	12.1.5	Electron displacement effects in covalent bonds

PRACTICAL

STANDARD: 11	**SUBJECT : CHEMISTRY**
Sl.No	**Topic**
Salt Analysis	
1	Lead Nitrate
2	Copper Sulphate
3	Aluminium Nitrate
4	Ferric Chloride

SYLLABUS 2021-2022

STANDARD: 11 **SUBJECT: BOTANY (THEORY)**

CHAPTER	CONTENT
1. Living world	1.2.6 Bacteriophage 1.2. 7 Multiplication or Lifecycle of Phages 1. 3 Classification of Living world 1.3.3 Five kingdom of classification 1.4. 4 Gram staining procedure 1.4. 5 Life processes in Bacteria 1.4. 6 Reproduction in Bacteria 1.4.8 Archaebacteria 1.4.9 Cyanobacteria (Blue Green Algae) 1.4.10 Mycoplasma 1.4.11 Actinomycetes 1.5.2 General characteristic features of fungi 1.5.4 Classification of fungi 1.5.5 Kingdom: Myceteae (Fungi) 1.5.7 Agaricus 1.5.8 Mycorrhizae 1.5.9 Lichen
2. Plant Kingdom	2. 2 Lifecycle patterns in plants 2.3.1 General characteristic features of algae 2.3.2 Classification of algae 2.3.4 Chara 2.4.1 General characteristic features of bryophytes 2.4.2 Classification of Bryophytes 2.4. 4 Marchantia 2.5.1 General characteristic features of Pteridophytes 2.5. 2 Classification of Pteridophytes 2.5. 4 Selaginella 2.5. 5 Types of Stele 2.6.1 General characteristic features of Gymnosperm 2.6. 2 Classification of Gymnosperm 2.6.3 Comparison of Gymnosperm with Angiosperm 2.6. 5 Cycas

3. Vegetative Morphology	3. 5	Root system
	3.5.1	Types of Root system
	3.5.2	Functions of root
	3.5.3	Modification of roots – Tap root Modification
	3. 6	Shoot system
	3.6.3	Modification of stem
	3.7	Leaf
	3.7.3	Phyllotaxy
	3.7. 5	Leaf types
	3.7. 6	Leaf modification
	3.7. 7	Leaf duration
4. Reproductive Morphology	4. 1	Inflorescence
	4.1.1	Types of inflorescence
	4.1.2	Based on branching pattern and other character
	4. 2	Flower
	4.2.1	Whorls of flower
	4.2.2	Flower sex
	4.2.3	Plant sex
	4. 4	Androecium
	4.4.1	Fusion of stamens
	4. 5	Gynoecium
	4.5.1	Number of carpels
	4.5.5	Ovary position
	4. 6	Construction of floral diagram and Formula
5. Taxonomy and Systematic Botany	5.1	Taxonomy and systematics
	5.2	Taxonomic Hierarchy
	5.3	Concept of species - Morphological, Biological and Phylogenetic
	5.4	International Code of Botanical Nomenclature (ICBN)
	5.5	Taxonomic Aids
	5.10	Types of Classification
	5.10.1	Artificial system of classification
	5.10.2	Natural system of classification
	5.10.3	Phylogenetic system of classification
	5.10.4	Angiosperm phylogeny group classification(APG)
	5.11	Modern Trends in Taxonomy
	5.11.1	Chemotaxonomy
	5.11.2	Biosystematics

	5.11.3 Karyotaxonomy 5.11.4 Serotaxonomy 5.11.5 Molecular taxonomy 5.11.6 DNA Barcoding 5.12 Cladistics 5.13 Selected families of Angiosperms 5.13.1 Fabaceae 5.13.2 Apocynaceae 5.13.3 Solanaceae 5.13.4 Euphorbiaceae 5.13.5 Musaceae 5.13.6 Liliaceae
6. Cell: The Unit of Life	6. 2 Microscopy 6.2.1 Bright field microscope 6.2.2 Electron Microscope 6. 3 Cell theory 6.3.1 Exception to cell theory 6.3.2 Protoplasm theory 6.3.3 Cell sizes and shapes 6. 5 Plant and Animal cell 6.5.1 Ultrastructure of an Eukaryotic cell 6.5.2 Protoplasm 6.5.3 Cellwall 6.5.4 Cell membrane 6. 7 Nucleus 6.7.1 Chromosome 6. 8 Flagella 6.8.1 Prokaryotic flagellum 6.8.2 Eukaryotic flagellum 6.8.3 Cilia

7. Cell Cycle	7. 2	Cell cycle
	7.2.1	Duration of cell cycle
	7.2.2	Interphase
	7.2.3	G1 phase
	7.2.4	G0 phase
	7.2.5	S phase
	7.2.6	G2 - The second gap phase
	7. 3	Cell division
	7.3.1	Amitosis (Direct Cell Division)
	7.3.2	Mitosis
	7.3.3	Closed and Open Mitosis
	7.3.4	Cytokinesis
	7.3. 6	Meiosis
8. Biomolecules	8. 3	Carbohydrates and Classification
	8.3.1	Monosaccharides
	8.3.2	Disaccharides
	8.3.3	Polysaccharides
	8.3.4	Starch
	8.3.5	Test for starch
	8.3.6	Cellulose
	8.3.7	Chitin
	8.3.8	Test for reducing sugar
	8. 5	Proteins
	8.5.1	Classification of Aminoacids
	8.5.2	Structure of protein
	8.5.3	Protein Denaturation
	8.5.4	Protein binding
	8.5.5	Test for proteins
	8. 6	Enzymes
	8.6.1	Properties of enzyme
	8.6.2	Lock and Key mechanism of enzyme
	8.6.3	Enzyme cofactors
	8.6.4	Classification of enzymes
	8.6.5	Uses of enzymes
	8. 7	Nucleic acids
	8.7.1	Formation of Dinucleotide and Polynucleotide
	8.7.2	Structure of DNA
	8.7.3	Features of DNA
	8.7.4	Ribonucleic Acid (RNA)
	8.7.5	Types of RNA

PRACTICAL

STANDARD: 11	SUBJECT: BOTANY
Sl.No	**Topic**
Preparation and Demonstration of Slides	
1	Mitotic cell division stages
2	Anatomical structure – Dicot & Monocot (Root, Stem &Leaf)
Fresh or preserved specimens	
3	Phylloclade – Opuntia
4	Special inflorescence – Cyathium
Model/ Photograph/ Pictures	
5	Types of Stele
6	Types of Inflorescence
Taxonomy - Flower Dissection	
7	Fabaceae – Clitoria ternatea
8	Apocynaceae - Catharanthus roseus
9	Solanaceae – Datura metal
Bio molecules – Nutrient test	
10	Test for reducing sugar-Benedict test
11	Starch – Iodine test
12	Protein –Biuret test
13	Lipid –Saponification test

SYLLABUS 2021-2022

STANDARD: XI **SUBJECT: ZOOLOGY**

UNIT	CONTENT
1. The Living World	Introduction 1.1 Diversity in the living world 1.3 Taxonomy and systematics 1.4 Three domains of life 1.7 Concept of species 1.8 Tools for study of Taxonomy
2. Kingdom Animalia	Introduction 2.1 Basis of classification 2.1.1 Levels of organisation 2.1.2 Diploblastic and Triploblastic organisation 2.1.3 Patterns of symmetry 2.1.4 Coelom 2.1.5 Segmentation and Notochord 2.2 Classification of Kingdom – Animalia 2.3 Non – Chordates 2.3.2 Phylum – Cnidaria 2.3.3 Phylum – Ctenophora 2.3.6 Phylum – Annelida 2.3.7 Phylum – Arthropoda 2.4 Phylum – Chordata – Characteristics 2.4.3 Subphylum – Vertebrata 2.4.4 Class – Cyclostomata 2.4.5 Class – Chondrichthyes 2.4.6 Class - Osteichthyes
3. Tissue Level of Organisation	Introduction 3.1 Animal Tissues 3.2 Epithelial Tissues 3.3 Connective Tissues
4. Organ and Organ System of Animal	Introduction 4.1 Earthworm 4.3 Frog

5. Digestion and Absorption	Introduction 5.1 Digestive System 5.1.1 Structure of the alimentary canal 5.1.2 Histology of the Gut 5.1.3 Digestive glands 5.2 Digestion of food and role of digestive enzymes 5.3 Absorption and assimilation of proteins, carbohydrates and fats 5.4 Egestion 5.7 Nutritional and digestive Disorders
6. Respiration	Introduction 6.1 Respiratory functions 6.3 Mechanism of breathing 6.3.1 Respiratory volumes and capacities 6.4 Exchange of gases 6.5 Transport of gases 6.5.1 Transport of oxygen 6.5.2 Transport of Carbon-dioxide 6.6 Regulation of Respiration 6.7 Problems in oxygen Transport 6.9 Effects of Smoking
7. Body fluids and circulation	Introduction 7.1 Body Fluids 7.1.1 Plasma 7.1.2 Formed elements 7.1.3 Blood groups 7.1.4 Coagulation of blood 7.1.5 Composition of lymph and its function 7.4 Human Circulatory System 7.4.1 Origin and conduction of heart beat 7.4.2 Cardiac cycle 7.4.3 Cardiac output 7.4.4 Electrocardiogram (ECG) 7.6 Regulation of Cardiac activity 7.7 Disorders of the circulatory system 7.8 Diagnosis and treatment
PRACTICALS	1. Pleurobrachia 2. Tapeworm 3. Cockroach 4. Pila 5. Squamous epithelium 6. Columnar epithelium 7. Rib cage 8. Ball and Socket joint

SYLLABUS 2021-2022

STANDARD: 11 SUBJECT: BIO-BOTANY (THEORY)

CHAPTER	CONTENT
1. Living world	1.2.6 Bacteriophage 1.2. 7 Multiplication or Lifecycle of Phages 1.3 Classification of Living world 1.3.3 Five kingdom of classification 1.4.4 Gram staining procedure 1.4.5 Life processes in Bacteria 1.4.6 Reproduction in Bacteria 1.4.8. Archaebacteria 1.4.9. Cyanobacteria (Blue Green Algae) 1.4.10. Mycoplasma or Mollicutes 1.4.11. Actinomycetes 1.5.2 General characteristic features 1.5.4 Classification of fungi 1.5.6 Mycorrhizae 1.5.7 Lichen
2. Plant Kingdom	2.2 Lifecycle patterns in plants 2.3.1 General characteristic features of algae 2.3.2 Classification of algae 2.4.1 General characteristic features of bryophytes 2.5.1 General characteristic features of Pteridophytes 2.5.3 Types of Stele 2.6.1 General characteristic features of Gymnosperm 2.6.2 Comparison of Gymnosperm with Angiosperm
3. Vegetative Morphology	3. 5 Root system 3.5.1 Types of Root system 3.5.2 Functions of root 3.5.3 Modification of roots – Tap root Modification

	3. 6	Shoot system
	3.6.3	Modification of stem
	3.7	Leaf
	3.7.3	Phyllotaxy
	3.7. 5	Leaf types
	3.7. 6	Leaf modification
	3.7. 7	Leaf duration
4. Reproductive Morphology	4. 1	Inflorescence
	4.1.1	Types of inflorescence
	4.1.2	Based on branching pattern and other character
	4. 2	Flower
	4.2.1	Whorls of flower
	4.2.2	Flower sex
	4.2.3	Plant sex
	4. 4	Androecium
	4.4.1	Fusion of stamens
	4. 5	Gynoecium
	4.5.1	Number of carpels
	4.5.5	Ovary position
	4. 6	Construction of floral diagram and Formula
5. Taxonomy and Systematic Botany	5.1	Taxonomy and systematics
	5.2	Taxonomic Hierarchy
	5.3	Concept of species - Morphological, Biological and Phylogenetic
	5.4	International Code of Botanical Nomenclature (ICBN)
	5.5	Taxonomic Aids
	5.10	Types of Classification
	5.10.1	Artificial system of classification
	5.10.2	Natural system of classification
	5.10.3	Phylogenetic system of classification

	5.10.4	Angiosperm phylogeny group classification(APG)
	5.11	Modern Trends in Taxonomy
	5.11.1	Chemotaxonomy
	5.11.2	Biosystematics
	5.11.3	Karyotaxonomy
	5.11.4	Serotaxonomy
	5.11.5	Molecular taxonomy
	5.11.6	DNA Barcoding
	5.12	Cladistics
	5.13	Selected families of Angiosperms
	5.13.1	Fabaceae
	5.13.2	Solanaceae
	5.13.3	Liliaceae
6. Cell: The Unit of Life	6. 2	Microscopy
	6.2.1	Bright field microscope
	6.2.2	Electron Microscope
	6. 3	Cell theory
	6.3.1	Exception to cell theory
	6.3.2	Protoplasm theory
	6.3.3	Cell sizes and shapes
	6. 5	Plant and Animal cell
	6.5.1	Ultrastructure of an Eukaryotic cell
	6.5.2	Protoplasm
	6.5.3	Cellwall
	6.5.4	Cell membrane
	6. 7	Nucleus
	6.7.1	Chromosome
	6. 8	Flagella
	6.8.1	Prokaryotic flagellum
	6.8.2	Eukaryotic flagellum
	6.8.3	Cilia

7. Cell Cycle	7. 2	Cell cycle
	7.2.1	Duration of cell cycle
	7.2.2	Interphase
	7.2.3	G_1 phase
	7.2.4	G_0 phase
	7.2.5	S phase
	7.2.6	G_2 - The second gap phase
	7. 3	Cell division
	7.3.1	Amitosis (Direct Cell Division)
	7.3.2	Mitosis
	7.3.3	Closed and Open Mitosis
	7.3.4	Cytokinesis
	7.3. 6	Meiosis
8. Biomolecules	8. 3	Carbohydrates and Classification
	8.3.1	Monosaccharides
	8.3.2	Disaccharides
	8.3.3	Polysaccharides
	8.3.4	Starch
	8.3.5	Test for starch
	8.3.6	Cellulose
	8.3.7	Chitin
	8.3.8	Test for reducing sugar
	8. 5	Proteins
	8.5.1	Classification of Aminoacids
	8.5.2	Structure of protein
	8.5.3	Protein Denaturation
	8.5.4	Protein binding
	8.5.5	Test for proteins
	8. 6	Enzymes
	8.6.1	Properties of enzyme
	8.6.2	Lock and Key mechanism of enzyme
	8.6.3	Enzyme cofactors
	8.6.4	Classification of enzymes
	8.6.5	Uses of enzymes
	8. 7	Nucleic acids
	8.7.1	Formation of Dinucleotide ad Polynucleotide
	8.7.2	Structure of DNA
	8.7.3	Features of DNA
	8.7.4	Ribonucleic acid (RNA)
	8.7.5	Types of RNA

PRACTICAL

STANDARD: 11	SUBJECT: BIO-BOTANY
Sl.No	**Topic**
Preparation and Demonstration of Slides	
1	Mitotic cell division stages
2	Anatomical structure – Dicot& Monocot (Root, Stem &Leaf)
Fresh or preserved specimens	
3	Phylloclade – Opuntia
4	Special inflorescence – Cyathium
Taxonomy - Flower Dissection	
5	Fabaceae – Clitoria ternatea
6	Solanaceae – Datura metal
Bio molecules – Nutrient test	
7	Test for reducing sugar-Benedict test
8	Starch – Iodine test

SYLLABUS 2021-2022

STANDARD: XI **SUBJECT: BIO-ZOOLOGY**

UNIT	CONTENT
1. The Living World	Introduction 1.1 Diversity in the living world 1.3 Taxonomy and systematics 1.4 Three domains of life 1.7 Concept of species 1.8 Tools for study of Taxonomy
2. Kingdom Animalia	Introduction 2.1 Basis of classification 2.1.1 Levels of organisation 2.1.2 Diploblastic and Triploblastic organisation 2.1.3 Patterns of symmetry 2.1.4 Coelom 2.1.5 Segmentation and Notochord 2.2 Classification of Kingdom – Animalia 2.3 Non – Chordates 2.3.2 Phylum – Cnidaria 2.3.3 Phylum - Ctenophora 2.3.6 Phylum - Annelida 2.3.7 Phylum - Arthropoda 2.4 Phylum – Chordata – Characteristics 2.4.3 Subphylum – Vertebrata 2.4.4 Class – Cyclostomata 2.4.5 Class – Chondrichthyes 2.4.6 Class - Osteichthyes
3. Tissue Level of Organisation	3.1 Animal Tissues 3.2 Epithelial Tissues 3.3 Connective Tissues

4. Organ and Organ System of Animal	Introduction 4.1 Earthworm 4.3 Frog
5. Digestion and Absorption	Introduction 5.1 Digestive System 5.1.1 Structure of the alimentary canal 5.1.2 Histology of the Gut 5.1.3 Digestive glands 5.2 Digestion of food and role of digestive enzymes 5.3 Absorption and assimilation of proteins, carbohydrates and fats 5.4 Egestion 5.6 Nutritional and digestive Disorders
6. Respiration	Introduction 6.1 Respiratory functions 6.3 Mechanism of breathing 6.3.1 Respiratory volumes and capacities 6.4 Exchange of gases 6.5 Transport of gases 6.5.1 Transport of oxygen 6.5.2 Transport of Carbon-dioxide 6.6 Regulation of Respiration 6.7 Problems in oxygen transport 6.9 Effects of Smoking
PRACTICALS	1. Pleurobrachia 2. Tapeworm 3. Cockroach 4. Pila 5. Squamous epithelium 6. Columnar epithelium 7. Rib cage 8. Ball and Socket joint

SYLLABUS 2021-2022

CLASS: 11 **SUBJECT: BIO CHEMISTRY**

UNIT	CONTENT
1. Basic Concepts of Biochemistry and Cell Biology	Introduction 1.1. The unit of biological organisation: The Cell 1.2. Two Major classes of cells:prokaryotic and eukaryotic 1.3. Shape and Structure of cell 1.3.1. Cell and solute levels 1.4. Subcellular organelles 1.4.1. Cell Membrane 1.4.2. Cell Wall 1.4.3. Nucleus
2. Biomolecules	Introduction 2.1. Carbohydrates 2.1.1. Importance 2.2. Proteins 2.2.1 Definition 2.2.2 Classification 2.2.3 Functional diversity of proteins 2.3. Lipids 2.3.1 Definition 2.3.2 Classification 2.3.3 Function of lipids 2.4. Nucleic Acid 2.4.1 Definition 2.4.2 Structure of Nucleic acids 2.4.3 Classification 2.4.4 Functions of DNA and RNA
3. Proteins	Introduction 3.1. Dietary Source of Proteins 3.2. Amino Acids 3.2.1 Amino acids with Non polar side chains 3.2.2 Amino acids with uncharged polar side chains 3.2.3 Amino acids with basic side chains

	3.2.4	Stereo isomerism in amino acids
	3.2.5	Acid –base properties of amino acids
	3.2.6	Reaction with Ninhydrin
	3.2.7	Essential amino acids
	3.4.	Properties of Proteins
	3.5.	Haemoglobin - An Example for Globular protein
	3.6.	Collagen - An Example for Fibrous protein
4. Enzymes	Introduction	
	4.1.	Nature and properties of Enzymes
	4.2.	Nomenclature and Classification of Enzymes
	4.3.	Coenzyme
	4.4.	Factors influencing Enzyme activity
	4.4.1	Effect of pH
	4.4.2	Effect of Temperature on enzyme activity
	4.4.3	Concentration of Substrate
	4.4.4	Concentration of Enzyme
	4.4.5	Activators
5. Carbohydrates	Introduction	
	5.1.	A Primary source of Energy
	5.3.	Structures of Glucose, Fructose & Galactose
	5.3.1	Glucose
	5.3.2	Fructose
	5.3.3	Galactose
	5.4.	Properties of Glucose, Fructose and Galactose (chemical properties)
	5.4.1	Glucose
	5.4.2	Fructose
	5.4.3	Galactose
	5.5.	Haworth's Projection
	5.6.	Disaccharides
	5.6.1	Maltose
	5.6.2	Lactose
	5.6.3	Sucrose

PRACTICAL

CLASS: 11	SUBJECT: BIO CHEMISTRY
Sl.No	**Topic**
1.	Carbohydrate Glucose
2.	Starch
3.	Amino acids

SYLLABUS 2021–2022

STANDARD: 11 **SUBJECT:** MICROBIOLOGY

UNIT	TOPICS
1. Introduction to Microbiology	1.1 Groups of Microorganisms 1.2.2 Louis Pasteur 1.2.4 Robert Koch
2. Microscopy	2.1 Historical Background 2.2 Principles of Microscopy 2.2.1 Properties of light 2.2.2 Lenses and its properties 2.4 Dark field Microscope
3. Stains and staining methods	3.2 Purpose of staining 3.3 Stains 3.3.1 Classification of stains 3.4 Principle of staining 3.5 Preparation of materials for staining 3.5.1 Preparation of smear 3.5.2 Fixation 3.5.3 Bacterial staining methods 3.6 Simple staining method 3.7 Differential staining 3.7.1 Gram's staining method 3.7.2 Procedure of Gram's staining 3.7.3 Principle of Gram's staining 3.8 Special staining-endospore staining

4. Sterilization	4.4 Sterilization by heat 4.4.1 Sterilization by Dry heat 4.4.2 Sterilization by moist heat 4.5 Radiation 4.6 Filtration
5.Cultivation of Microorganisms	5.2 Bacteriological media and its types 5.2.1 Physical nature of agar medium 5.2.2 Chemical nature of medium 5.2.3 Special purpose medium 5.3 Pure culture 5.3.1 Methods employed in the isolation of microorganisms
6.Microbial nutrition and growth	6.1 Microbial nutrition 6.2 Nutrient requirement of Microorganisms 6.5 Microbial growth 6.6 Measurement of growth
7.Morphology of Bacteria	7.2 Structure external to cell wall of Bacteria 7.2.1 Appendages 7.3 Cell envelope of Bacteria 7.3.1 Structure of prokaryotic cell wall 7.3.2 Structure of outer membrane 7.3.3 Structure of cytoplasmic membrane
Practical	**Major Practical** 8. Simple staining (16 - 18) 10. MEDIA preparation – Nutrient agar (21,22) **Spotters** 11. Petri plate (22) 12. Inoculation loop (22)

SYLLABUS 2021-2022

STANDARD: 11 SUBJECT: GENERAL NURSING

UNIT	CONTENT	
1. Nursing – Origin and its Development	1.1	Introduction
	1.2	Definition of Nursing
	1.3	Scope of Nursing in India
	1.4	Evolution of Nursing
2. Health Care Delivery system in India	2.1	Introduction
	2.2	Health Care Delivery System In India
	2.3	Primary Care
	2.4	Short Term Care and Long Term Care
3. Hospital and its Environment	3.1	Introduction
	3.4	Hospital Economy
	3.5	Admission Procedure
	3.6	Safety and Comfortable Environment
	3.7	Discharging the Patient
4. Communication Skill in Nursing	4.1	Introduction
	4.2	Concepts and Types of Communication: Concepts
	4.3	Importance of Communication
	4.4	Essential elements of communication process
	4.7	Interpersonal Relationship (IPR)
5. Health Assessment and Physical Examination	5.1	Introduction
	5.2	Definition
	5.3	Assessment Techniques
	5.5	Procedure and Recording Of Temperature
	5.6	Pulse
	5.7	Respiration
	5.8	Blood Pressure

6. Infection Control	6.1	Introduction
	6.2	Immunity
	6.3	Microorganisms
	6.4	Terminologies
	6.5	Infection Process
	6.9	Central Sterile Service Department(CSSD)

PRACTICAL

STANDARD: 11	**SUBJECT: GENERAL NURSING**
Sl.No	**Topic**
1	Health Care Delivery Systems in India
2	Health Assessment
3	Medical and Surgical Asepsis

SYLLABUS 2021–2022

STANDARD: 11 **SUBJECT: Nutrition and Dietetics**

UNIT	CONTENT
1. Introduction To Food	1.2. Functions of food 1.2. 1 Physiological functions of food 1.2.2 Psychological Functions of food 1.2.3 Social functions of Food 1.7. Cooking 1.7.1 Objectives of cooking 1.7.2 a. Moist Heat Methods 1.7.2 b. Dry heat methods. 1.7.2 c. Combination of cooking methods. 1.7.3 Other Methods of Cooking
2. Cereals And Pulses	2.3. Specific cereals and millets 2.3.1. Rice 2.3.2. Wheat 2.3.3. Oats 2.3.4. Barley 2.3.5. Health benefits of millets 2.5. Processing of cereals 2.5.1. Milling 2.5.2. Parboiling 2.5.3. Malting of cereals 2.6. Cereal cookery 2.6.1. Gelatinisation 2.6.2. Gluten formation 2.6.3. Dextrinisation 2.7. Fermented cereal products 2.9. Health benefits of cereals 2.10. Pulses 2.10.1. Nutritive value of pulses 2.10.2 Germination 2.10.3 Toxic constituents in pulses 2.10.7 Health benefits of pulses
3. Vegetables And Fruits	3.3 Nutritive value of vegetables) 3.4 Purchase of vegetables and fruits 3.5 Vegetable Cookery 3.5.1. Methods to reduce loss of nutrients while cooking vegetables 3.5.2. Role of vegetables in cookery 3.6 Fruits 3.6.1 Nutritive value of fruits

3. Vegetables And Fruits	3.6.2 Classification of fruits 3.7 Pigments in vegetables and fruits 3.9 Browning in vegetables and fruits. 3.9.1. Measures to prevent enzymatic browning.
4. Flesh Foods, Milk And Milk Products	4.1 Meat 4.1.1 Classes of meat and related products 4.1.2 Structure of meat 4.1.5 Meat Cookery 4.1.6 Changes that occur during cooking 4.2.3 Composition and nutritive value 4.2.4 Selection of poultry 4.3.2 Composition and nutritive value of fish 4.3.3 Selection of Fish 4.4.2 The value of eggs in the diet 4.4.5 Uses of egg in cookery 4.5. Milk And Milk Products 4.5.1 Nutritive value of milk 4.5.2 Types of processed milk 4.5.3 Pasteurisation of milk
5. Nuts, Oil Seeds And Sugar	5.1 Nuts 5.1.1 Groundnuts 5.1.2 Cashew nuts 5.1.3 Coconut 5.1.4 Almonds 5.2. Oil seeds and their importance 5.2.1 Mustard Seeds 5.2.2. Corn oil 5.2.3 Castor Seeds 5.2.4 Sunflower Seeds 5.2.5 Sesame Seeds 5.2.6 Palm Oil Seeds 5.2.7 Olive Oil Seeds 5. 3. Fats and oils 5.3. 1.Nutritional significance 5.3.2 Refined oils 5.3.3. Hydrogenation – vanaspathi and margarine 5.4. Rancidity

6. Spices, Food Additives And Food Adulteration.	6.1 Spices 6.1.3 List of Indian Spices and its uses 6.2 Food additives 6.2.1 Need for food additives 6.2.2 Classification of food additives 6.2.3 Harmful effects of food additives 6.3.3 Methods to detect Food Adulteration 6.4. Food laws in our country
7. Recent Concepts In Nutrition	7.2. Nutraceuticals 7.2.1 Dietary supplements 7.2.2. Functional foods 7.6. Functional components of Fruits and vegetables 7.6.1. Red fruits and vegetables 7.6.2. Orange fruits and vegetables 7.6.3. Yellow fruits and vegetables 7.6.4. Green fruits and vegetables 7.6.5. Greenish / White fruits and vegetables 7.6.6. Blue/ Indigo/ Violet fruits and vegetables 7.7. Organic foods 7.7.1 Guidelines in Raising Organic Farms 7.7.2 Tips to grow kitchen garden at home
8. Introduction To Nutrition Science	8.1 The Origin of Nutrition 8.2 Importance of Nutrients 8.3 Importance of Nutrition

PRACTICAL

STANDARD: 11	SUBJECT: NUTRITION AND DIETETICS
Sl.No	**Topic**
1	Measuring Techniques
2	Cooking Methods
3	Cereal Cookery
4	Pulse Cookery

SYLLABUS 2021–2022

STANDARD: 11 SUBJECT: HOME SCIENCE

UNIT	CONTENT
1. Concepts and Scope of Home Science	1.1 Introduction 1.2 Evolution of the Discipline of Home Science 1.2.1 Diploma courses in Home Science 1.3 Components of Home Science 1.3.1 Foods and Nutrition 1.3.2 Family resource Management 1.3.3 Textile and Clothing 1.3.4 Human Development 1.3.5 Communication and Extension 1.4 Relevance of Home Science in improving quality of life 1.5 Educational and Vocational scope of Home Science 1.5.1 Clinical Dietician 1.5.2 Public Health Nutritionists 1.5.3 Academicians and Research Scholars 1.5.4 Consultant/Private practice 1.5.5 Business and Industry 1.5.6 National and International Food organizations
2. Human Development and its Challenges	Entire Unit
3. Food Science	3.1 Introduction 3.2 Functions of food 3.2.1 Physiological Functions of Food 3.2.2 Psychological Functions of Food 3.2.3 Social Functions of Food 3.3 Basic four food groups and its significance 3.3.1 Types and Importance of Millets 3.4 Food pyramid 3.6 Steps in minimizing loss of nutrients during cooking 3.7 Fortification and Enrichment 3.8 Kitchen equipment 3.9 Basic rules of Kitchen Safety

4. Food Preservation Methods	4.1	Introduction
	4.2	Preservation methods
	4.2.1	Preservation of foods with low temperature
	4.2.1.1	Chill Storage
	4.2.1.2	Freezing
	4.2.2	Preservation by high temperature
	4.2.2.1	Pasteurization
	4.2.2.2	Blanching
	4.2.2.3	Canning
	4.2.3	Preservation by Dehydration
	4.2.3.1	Drying
	4.2.3.2	Types of Driers
	4.2.4	Smoking of foods
	4.2.5	Preservation by chemical preservatives
	4.2.6	Preservation by high osmotic pressure
	4.2.6.1	High concentration of sugar
	4.2.6.2	High concentration of salt
	4.2.7	Food irradiation
	4.2.8	Vacuum packing
5. Nutrition	5.1	Introduction
	5.1.1	Introduction to Nutrition science
	5.3	Micro nutrients
	5.3.1	Minerals
		Calcium, Phosphorus, Iron
		Iodine,Zinc
	5.3.2	Vitamins
	5.3.2.1	Fat soluble vitamins A,D,E and K
	5.3.2.2	Water soluble vitamins, Thiamine, Riboflavin, Niacin, Pyridoxine, Folic acid, Cyanocobalamin, Vitamin C
	5.4	Water
	5.5	Malnutrition

PRACTICAL

STANDARD: 11	SUBJECT: HOME SCIENCE
Sl.No	**Topic**
1.	a) To use sugar as a preservative in preserving food (Banana Jam). b) To use salt and oil as preservative in preserving food (Pickles)
2.	Plan a day's menu for a 4 year old boy belonging to low income group suffering from Marasmic / Kwashiorkor. Prepare and serve one main item for his lunch. Calculate protein and energy for the prepared item.

SYLLABUS 2021–2022

CLASS: 11 SUBJECT: COMPUTER SCIENCE

UNIT	CONTENT
Unit-I **1. Introduction to Computers**	1.1. Introduction to Computers 1.2. Generation of Computers 1.4 Data and information
2. Number System	2.1. Introduction 2.2. Data Representation 2.3. Different Types of Number System 2.4. Number System Conversion 2.5 Binary Representation for signed Numbers
3. Computer Organisation	3.1. Introduction to Computer Organization 3.2 Basics of Microprocessor 3.4 Types of Microprocessor 3.5 Memory Devices
4. Theoretical Concepts of Operating System	4.1 Introduction to Software 4.2 Introduction to Operating System 4.3 Types of Operating System 4.5 Prominent Operating System
5. Working with Windows Operating System	5.1 Introduction to Operating System 5.2 Introduction to Windows Operating System 5.5 Windows Desktop 5.6 The Window 5.7 Application Window 5.8 Document Window 5.9 Elements of Window 5.11 Managing Files and Folders
UNIT - II **6 Specification and Abstraction**	6.1 Algorithms 6.2 Algorithmic Problems 6.3 Building Blocks of Algorithms 6.4 Algorithm Design Techniques 6.5 Specification 6.6 Abstraction

7. Composition and Decomposition	7.1 Notations for Algorithms 7.2 Composition 7.3Decomposition
8. Iteration and Recursion	8.1 Invariants 8.2 Loop Invariants
Unit - III **9 Introduction to C++**	9.1 Introduction 9.2 Character Set 9.3 Lexical Unit 9.4 Input/Output Operators 9.5 Sample Program in C++ 9.6 Execution of C++ 9.8 Types of errors 9.10 Introduction to datatypes, variables and Expressions 9.11 Concept of Datatype 9.12 C++ data types 9.13 Variables

PRACTICAL

CLASS: 11	**SUBJECT: COMPUTER SCIENCE**
Sl.No	**Topic**
1	Gross Salary
2	Percentage

SYLLABUS 2021-2022

CLASS : 11 **SUBJECT: COMMERCE**

UNIT	CONTENT
1. Historical Background of Commerce in the Sub-Continent	1.01 Introduction 1.02 Barter System 1.03 Hindrances of Commerce 1.04 Elimination of Hindrances of Commerce
2.Objectives of Business	2.01 Introduction 2.02 Types of Economic Activities 2.03 Characteristics of Business 2.04 Objectives of Business
3.Classification of Business Activities	3.01 Industry 3.02 Commerce 3.03 Trade
4.Sole Proprietorship	4.01 Introduction 4.02 Definition of Sole Trader 4.03 Characteristics 4.04 Advantages and Disadvantages
5.Hindu Undivided Family and Partnership	5.01 Introduction to HUF 5.02 Meaning and Definition of Partnership 5.03 Partnership Deed and its Contents 5.04 Rights and Duties of Partners 5.05 Types of Partners 5.06 Procedure for Registration 5.07 Drawbacks of Non-Registration of Partnership 5.08 Dissolution of Partnership
6.Joint Stock Company	6.01 Meaning & Definition of a Company 6.02 Types of Companies 6.03 Memorandum of Association 6.04 Articles of Association 6.05 Prospectus

7.Cooperative Organization	7.01 Meaning and Definition 7.02 Principles of Cooperation 7.03 Features of Cooperatives 7.04 Advantages and Disadvantages 7.05 Types of Cooperatives
9.Government Organizations	9.01 Meaning and Features of Departmental Undertaking 9.02 Advantages and Disadvantages 9.03 Meaning and Features of Public Corporation 9.04 Advantages and Disadvantages 9.05 Meaning and Features of Government Company 9.06 Advantages and Disadvantages
10.Reserve Bank of India	10.04 Bank Definition 10.05 Definition of Central Bank 10.06 Origin of RBI 10.07 Organizational Structure of RBI 10.08 Functions of RBI
12.Functions of Commercial Bank	12.01 Primary Functions 12.02 Secondary Functions 12.03 Diversified Banking Functions 12.04 Electronic Banking Functions 12.05 Functions of All Commercial Banks in Totality

13.Warehousing	13.01 Meaning of Warehouse and Warehousing 13.02 Difference between Warehouse and Warehousing 13.03 Types of Warehouses 13.04 Functions of Warehouse 13.05 Advantages and DrawBacks of Warehouse 13.06 Warehousing Documents 13.07 Warehousing in India
15.Insurance	15.01 Meaning and Definition of Insurance 15.02 Principles of Insurance 15.03 Types of Insurance 15.04 Insurance Regulatory Development Authority of India (IRDAI)

SYLLABUS 2021–2022

STANDARD: 11 SUBJECT: ACCOUNTANCY

UNIT	CONTENT
1. Introduction to Accounting	1.1 Introduction to accounting 1.2 Evolution of accounting 1.3 Meaning and definition of accounting 1.4 Accounting cycle 1.5 Objectives of accounting 1.6 Functions of accounting 1.7 Importance of accounting 1.8 Basic accounting terminologies 1.9 Branches of accounting 1.10 Bases of accounting 1.11 Users of accounting information 1.12 Role of an accountant
2. Conceptual Frame Work of Accounting	2.1 Book keeping - an introduction 2.1.1 Meaning of Book Keeping 2.1.2 Definition of Book Keeping 2.1.3 Features of Book Keeping 2.1.4 Objectives of Book Keeping 2.1.5 Advantages of Book Keeping 2.1.6 Limitation of Book Keeping 2.2 Book keeping vs Accounting 2.3 Relationship among Book-keeping, Accounting & Accountancy 2.4 Accounting Principles
3. Books of Prime Entry	3.1. Introduction 3.2 Source documents 3.3 Double entry system 3.3.1 Definition 3.3.2 Principles of double entry system 3.3.3 Advantages of double entry system 3.4 Transaction -(i) Cash transaction (ii) Bank transaction 3.6 Approaches of recording transactions

	3.6.2 Traditional Approach (only) 3.6.2.1 Classification of accounts 3.7 Accounting rules 3.8 Journal entries 3.8.1 Meaning 3.8.2 Format of journal 3.8.3 Steps in journalising 3.8.4 Different types of journal entries 3.8.5 Application of rules of double entry system 3.8.6 Analysis of transactions
4. Ledger	4.1 Introduction 4.2 Utilities of ledger 4.3 Format of ledger account 4.4 Distinction between journal and ledger 4.5 Procedure for posting 4.5.1 Posting of opening Journal Entry 4.5.2 Posting of Compound Journal Entry 4.6 Balancing of ledger accounts 4.6.1 Procedure for balancing an account
5. Trial Balance	5.1 Introduction 5.2 Need for preparing trial balance 5.3 Definition of trial balance 5.5 Objectives of preparing trial balance 5.7 Methods of preparing Trial Balance 5.7.1 Balance Method 5.8 Suspense Account
6. Subsidiary Book-1	6.1 Introduction 6.2 Meaning of subsidiary books 6.3 Types of subsidiary books 6.5 Purchases book 6.5.1 Invoice 6.5.2 Trade discount 6.5.3 Posting from purchase book 6.6 Purchases returns book 6.6.1 Posting from the purchases returns book

	6.6.2 Debit - note- the source document for relation outward 6.7 Sales book 6.7.1 Posting from sales book 6.8 Sales return book 6.8.1 Posting from the sales return book 6.8.2 Credit - note - the source document for relation inward
7. Subsidiary Book -II (Cash Book)	7.1 Introduction 7.2 Meaning of cash book 7.3 Cash book- A subsidiary book and principle book of accounts 7.4 Importance of cash book 7.5 Types of cash book 7.6 Single column cash book 7.6.1 Balancing of single column cash book 7.6.2 Posting from single column cash book 7.7 Cash discount and trade discount 7.7.1 Differences between cash discount and trade discount 7.9 Three column Cash book (Cash Book with Cash discount and Bank Column) 7.9.2 Contra Entry

SYLLABUS 2021–2022

CLASS: 11 SUBJECT: ECONOMICS

UNIT	CONTENT
1 Introduction to Micro Economics	1.1. Introduction 1.2. Economics - Meaning 1.3. Economics : Its nature 1.3.1. Wealth Definition : Adam Smith 1.3.2. Welfare Definition : Alfred Marshall 1.3.3. Scarcity Definition : Lionel Robbins 1.3.4. Growth Definition : Samuelson 1.4. Scope of Economics 1.5. Basic concepts in Economics 1.5.1. Goods and services 1.5.2. Utility 1.5.3. Price 1.5.4. Market 1.5.5. Cost 1.5.6. Revenue 1.5.7. Equilibrium 1.5.8. Income 1.7.1. Consumption 1.7.2. Production 1.7.3. Exchange 1.7.4. Distribution 1.8. Economics : Its types 1.8.1. Micro Economics 1.8.2. Macro Economics 1.8.3. International Economics 1.8.4. Public Economics 1.8.5. Developmental Economics 1.8.6. Health Economics 1.8.7. Environmental Economics

2. Consumption Analysis	2.1.	Introduction
	2.2.	Human Wants
	2.3.	Characteristics of Human wants
	2.4.	Classification of Goods
	2.5.	Cardinal Utility Analysis
	2.5.1.	The Law of Diminishing Marginal Utility (DMU)
	2.6.	The Law of Equi-Marginal Utility
	2.7.	Consumer's Surplus
	2.8.	Law of Demand
	2.8.1.	Characteristics of Demand
	2.8.2.	Demand function
	2.8.3.	Law of demand
	2.8.4.	Determinants of demand
	2.8.8.	Movement along demand curve
	2.8.9.	Shift in the demand curve
	2.9.	Elasticity of demand
	2.9.1.	Types of Elasticity of demand
	2.9.2.	Levels or degrees of price Elasticity of demand
	2.10.	Ordinal Analysis (or) Ordinal utility Approach (or) Hicks and Allen Approach (or) Indifference curve analysis
	2.11.	An Indifference curve
	2.12.	An Indifference map
	2.13.	Diminishing Marginal Rate of Substitution
	2.14.	Properties of the Indifference curves
	2.15.	Priceline or budget line
	2.16.	Consumer Equilibrium
	2.17.	Conclusion
3. Production Analysis	3.1.	Introduction
	3.2.1.	Land
	3.2.2.	Labour
	3.2.3.	Capital
	3.2.4.	Organization
	3.3.	Production function

	3.4. Law of Variable Proportions 3.5. Law of Returns to Scale 3.6. Economies of Scale 3.8. Iso-quants 3.8.1. Definition of Iso-quant 3.8.2. Iso-quant curve 3.8.3. Iso-quant map 3.8.4. Properties of Iso-quant curve 3.12.1. Supply function 3.12.2. Supply curve 3.12.3. Factors determining supply 3.13. Conclusion
4. Cost and Revenue Analysis	4.1. Introduction 4.3 Cost Concepts 4.3.1. Money Cost 4.3.2. Real Cost 4.3.3. Explicit Cost 4.3.4. Implicit Cost 4.3.5. Economic Cost 4.3.6. Social Cost 4.3.7. Opportunity Cost 4.3.8. Sunk Cost 4.3.9. Floating Cost 4.3.10. Prime Cost 4.3.11. Fixed Cost 4.3.12. Variable Cost 4.4. Short run Cost Curves 4.4.1. Total Fixed Cost (TFC) 4.4.2. Total Variable Cost (TVC) 4.4.3. Total Cost Curves 4.4.4. Average Fixed Cost (AFC) 4.4.5. Average Variable Cost (AVC) 4.4.6. Average Total Cost (ATC) or Average Cost (AC) 4.4.7. Marginal Cost (MC)

	4.4.8.	The relationship between Average Cost and Marginal cost
	4.5.	Long Run Cost Curve:
	4.6.	Revenue Analysis
	4.6.1.	Revenue Concepts
	4.6.2.	Relationship between AR and MR Curves
	4.6.3.	Relationship among TR, AR and MR Curves
	4.6.4.	TR, AR, MR and Elasticity of Demand
	4.7.	Conclusion
5. Market Structure and Pricing	5.1.	Introduction
	5.2.	Meaning of Market
	5.3.	Classification of Market
	5.4.	Equilibrium Conditions for a Firm
	5.4.1.	Total curve approach
	5.4.2.	Marginal curve Approach
	5.5.	Perfect Competition
	5.5.1.	Features of the Perfect Competition
	5.5.2.	Perfect Competition: Firm's Equilibrium in the Short Run
	5.5.3.	Perfect Competition: Firm's Equilibrium in the Long Run (Normal Profit)
	5.8.	Monopolistic Competition
	5.8.1.	Features of Monoplistic competition
	5.8.2.	Price and Output Determination under Monoplistic Competition
6. Distribution Analysis	6.1.	Introduction
	6.2.	Meaning of Distribution
	6.3.	Kinds of Distribution of income
	6.4.	Marginal Productivity theory of distribution
	6.6.	Wages
	6.6.1.	Meaning
	6.6.2.	Kinds of Wages
	6.7.	Theories of Wages
	6.7.3.	Wage Fund Theory of Wages
	6.7.5.	Marginal Productivity Theory of Wages
	6.8.	Interest
	6.8.1.	Meaning
	6.8.2.	Kinds of Interest
	6.10	Profit
	6.10.1.	Meaning of profit
	6.10.2.	Kinds of Profit

SYLLABUS 2021–2022

CLASS: 11 SUBJECT: HISTORY

UNIT	CONTENT
1. Early India: From the Beginnings to the Indus Civilisation	Entire Unit
2. Early India: The Chalcolithic, Megalithic, Iron Age and Vedic Cultures	Introduction 2.1. Pre-Aryan, Late Harappan and Chalcolithic Cultures of India 2.2. Iron Age in North India 2.3. Megalithic/ Iron Age in Tamil Nadu 2.4. Megalithic Sites in Tamil Nadu 2.5. The Aryans and Rig Vedic Society 2.6 Rig Vedic Culture 2.7 Later Vedic Culture
3. Rise of Territorial Kingdoms and New Religious Sects	Introduction 3.1. Developments in the Gangetic Plain 3.2 Janapadas to Mahajanapadas 3.3 Emergence of Heterodox Thinkers 3.4 Ajivikas 3.5 Jainism 3.6 Buddhism
4. Emergence of State and Empire	Introduction 4.1. Rise of Magadha under the Haryanka Dynasty 4.2. Nandas: The First Empire Builders of India
5. Evolution of Society in South India	Entire Unit
6. Polity and Society in Post-Mauryan Period	6.3. The Tamil Kingdoms 6.4. Trade Between Tamizhagam and Rome
7. The Guptas	Introduction 7.1. Chandragupta I and Empire Building 7.2. Samudragupta 7.3. Chandragupta II 7.4. Gupta's Administrative System

SYLLABUS 2021-2022

STANDARD: 11 **SUBJECT: POLITICAL SCIENCE**

UNIT	CONTENT
1. Introduction of Political Science	1.1 Meaning, Definition and origin of political science 1.2 Nature of Political science 1.3 scope of Political science
2. State	2. Introduction 2.1 Meaning and Definition of State 2.2 Essential Elements of State 2.3 Society, State and Government 2.5 Concept of Welfare State 2.6 Concept of soft state 2.7 Concept of over Developed State
3. Basic concept of political science Part - I	Entire Unit
4. Basic Concept of Political Science Part - II	4.1 Law 4.1.1 Introduction 4.1.2 Meaning of Law 4.1.3 Classification of Laws 4.1.4 The sources of law 4.1.5 How Law is Related to state and Morality ? 4.1.6 How Law and Public opinion are related to each other? 4.2 Citizenship 4.2.1 Introduction 4.2.2 Citizenship and the City - State 4.2.4 Citizenship In India 4.2.5 Global citizenship and National citizenship 4.3 Rights and Duties 4.3.1 Introduction 4.4 Political obligation 4.4.1 Political obligation and Political Authority

5. Democracy	5.1 Definition and types of democracy 5.4 Achievement of Indian Democracy 5.5 Challenges to Indian Democracy
6. Forms of Governments	6.1 Introduction 6.2 Meaning , Definition and Nature of Government 6.3 Unitary form of Government 6.4 Federal form of Government 6.5 Parliamentary form of Government 6.8 How to evaluate the performance of a Government
7. Political Thought	7.1 Plato 7.2 Aristotle 7.4 Niccolo Machiavelli 7.9 Karl Marx

SYLLABUS 2021-2022

CLASS : 11 **SUBJECT: GEOGRAPHY**

UNIT	CONTENT
1. Fundamentals of Geography	1.1 Introduction 1.2 Defining Geography 1.3 Evolution of Geography 1.7 Branches of Geography
2. The solar system and the earth	2.1 Introduction 2.2 Theories of the Earth's origin 2.3 Modern theories of the origin of the Universe 2.14 Motions of the earth Seasons 2.16 Time Zones of the World
3.Lithosphere: Endogenic Processes	3.1 Introduction 3.3 Continental Drift Theory 3.4 Plate Tectonics 3.5 Plate boundaries 3.11 Rocks 3.11.1 Rock types 3.12 Rock Cycle
4.Lithosphere: Exogenic Processes	4.1 Introduction 4.6 The River 4.7 Glacier 4.9 Wind 4.10 Waves

SYLLABUS 2021–2022

CLASS: 11 **SUBJECT: STATISTICS**

REVISION TEST - 1

UNIT	CONTENT
1. Scope of Statistics and Types of the data	Introduction 1.2 Definitions 1.3 Functions of Statistics 1.4 Scope and Applications 1.4.1 Statistics and actuarial science 1.4.2 Statistics and Commerce 1.4.3 Statistics and Economics 1.4.4 Statistics and Medicine 1.4.5 Statistics and Agriculture 1.4.6 Statistics and Industry 1.4.7 Statistics and Information Technology 1.4.8 Statistics and Government 1.5 Big Data 1.6 Variable and Types of data 1.7 Measurement scales 1.7.1 Nominal scales 1.7.2 Ordinal scales 1.7.3 Interval scales 1.7.4 Ratio scales
2. Collection of data and Sampling methods	Introduction 2.2 Methods of Collecting Primary Data 2.2.1 Direct Method 2.2.2 Indirect Method 2.2.3 Questionnaire Method 2.2.4 Local correspondents Method 2.2.5 Enumeration Method 2.3 Secondary Data 2.4 Population 2.5 Census Method 2.6 Sampling method 2.7 Probability sampling 2.7.1 Simple random sampling 2.7.2 Stratified random sampling

3. Classification and tabulation of data	Introduction 3.1 Classification of data and Objectives of Classification 3.2 Types of classifications 3.2.1 Classification by Time or Chronological Classification 3.2.2 Classification by Space (Spatial) or Geographical Classification 3.2.3 Classification by Attributes or Qualitative Classification 3.2.4 Classification by Size or Quantitative Classification 3.3 Tabulation 3.5 Components of Table 3.6 Frequency Distribution 3.6.1 Discrete Frequency Distribution 3.6.2 Continuities Frequency Distribution 3.6.3 Inclusive and Exclusive Methods of Forming Frequency Distribution 3.6.4 Guidelines on Compilation of Continuities Frequency Distribution 3.7 Cumulative Frequency Distribution 3.9 Stem and Leaf Plot
4. Diagrammatic and Graphical Representation of Data	Introduction 4.1 Meaning and significance of diagrams and graphs 4.2 Rules for constructing diagrams 4.3 Types of Diagrams 4.3.1 Simple Bar Diagrams 4.3.2 Pareto Diagrams 4.3.3 Multiple Bar Diagrams 4.3.4 Component Bar Diagrams (Sub-divided Bar Diagram) 4.3.5 Percentage Bar Diagrams 4.3.6 Pie Diagrams 4.3.7 Pictogram 4.4 Types of Graphs 4.4.1 Histogram 4.4.2 Frequency Polygon 4.4.3 Frequency Curve 4.4.4 Cumulative Frequency Curve (Ogive)

5. Measures of Central Tendency	Introduction 5.1 Definitions of Measures of Central Tendency 5.2 Characteristics for a good Statistical average 5.3 Various Measures of Central Tendency 5.3.2 Geometric Mean 5.3.3 Harmonic Mean 5.3.4 Median 5.3.5 Mode 5.4 Empirical relationship among mean, median and mode

SYLLABUS 2021–2022

STANDARD: 11 SUBJECT: BUSINESS MATHEMATICS & STATISTICS

UNIT	CONTENTS
1. Matrices and Determinants	Introduction 1.1 Determinants : [Definition - matrix and determinants] 1.1.2 Minors 1.1.3 Cofactors 1.1.4 Properties of determinants (without proof) 1.2 Inverse of a Matrix 1.2.1 Singular Matrix 1.2.2 Non – singular Matrix 1.2.3 Adjoint of a Matrix 1.2.4 Inverse of a Matrix 1.3 Input and Output Analysis 1.3.1 The Hawkins – Simon conditions
2. Algebra	Introduction 2.1 Partial Fractions: 2.1.1 Denominator contains non – repeated linear factors 2.2 Permutations 2.2.1 Factorial 2.2.2 Fundamental principal of counting 2.2.3 Additional Fundamental principal of counting 2.2.4 Permutation 2.2.5 Circular permutation 2.3 Combinations 2.4 Mathematical Induction
3. Analytical Geometry	Introduction 3.1 Locus 3.1.1 Equations of locus 3.2 System of Straight Lines 3.2.1 Recall 3.2.2 Angle between two straight lines 3.2.3 Distance of a point from a line 3.2.4 Concurrence of three lines 3.4 Circle 3.4.1 The equation of a circle when the centre and radius are given 3.4.2 Equation of a circle when the end points of a diameter are given 3.4.3 General equation of a circle 3.4.4 parametric form of a circle 3.4.5 Tangents

4. Trigonometry	Introduction 4.1 Trigonometric Ratios 4.1.1 Quadrants 4.1.2 Signs of the trigonometric ratios of an angle as it varies from 0° to 306° 4.1.3 Trigonometric ratios of allied angles 4.2 Trigonometric Ratios of Compound Angles: 4.2.1 Compound angles 4.2.2 Sum and difference formulae of sine, cosine and tangent 4.2.3 Trigonometric ratios of multiple angles 4.3 Transformation formulae: 4.3.1 Transformation of the products into sum or difference 4.3.2 Transformation of sum or difference into product
5. Differential Calculus	Introduction 5.1 Functions and their Graphs 5.1.1 Quantity 5.1.2 Constant 5.1.3 Variable 5.1.4 Intervals 5.1.5 Neighbourhood of a point 5.1.6 Function 5.1.7 Classification of functions 5.1.8 Even and odd functions 5.1.9 Explicit and implicit functions 5.1.10 Constant function 5.1.11 Identify function 5.1.12 Modulus function 5.1.13 Signum function 5.1.14 Step function 5.1.15 Rational Function 5.1.16 Polynomial function 5.1.17 Linear function 5.1.18 Quadratic function 5.1.19 Exponential Function 5.1.20 Logarithmic function 5.1.21 Sum, difference, product and quotient of two functions 5.2 Limits and Derivatives 5.2.1 Existence of limit 5.2.2 Algorithm of left hand limit 5.2.3 Algorithm of right hand limit 5.2.4 Some results of limits 5.2.5 Indeterminate forms and evaluation of limits

	5.2.6 Methods of evaluation of algebraic limits 5.2.7 Some standard limits 5.2.8 Continuous function 5.2.9 Some properties of continuous functions 5.2.10 Differentiability at a point 5.2.11 Left hand derivative and right hand derivative 5.3 Differentiation Techniques 5.3.1 Some standard results [formulae] 5.3.2 General rules for differentiation 5.3.5 Differentiation of parametric functions 5.3.6 Differentiation of a function with respect to another function 5.3.7 Successive differentiation

பாடத்திட்டம் 2021 – 2022

வகுப்பு : 11 **பாடம்: சிறப்புத்தமிழ்**

இயல்	பாடப்பொருள்
1. கவிதையியல்	பாடம் முழுவதும்
2. கதையியல்	தமிழ்ச் சிறுகதை வளர்ச்சியும் தோற்றமும் சிறுகதை வாசிப்பும் திறனாய்வும் சிறுகதை எழுதும் கலை இறுக மூடிய கதவுகள் நசுக்கம் அயலகத்தமிழ் எழுத்தாளர் சிறுகதை– பேபி குட்டி குறுங்கதை – ரப்பர் பந்து நுண்கதைகள் – பனித்துளியின் பேச்சு ஒற்றைக்குரல்
3. அரங்கவியல்	நாடகக்கலை தெருக்கூத்தில் கட்டியங்காரன் நாடகவியல் ஆளுமைகள்

SYLLABUS 2021–2022

CLASS: 11 SUBJECT: COMMUNICATIVE ENGLISH

UNIT	CONTENT
1. I would like to Rise and Go!	Travel and Tourism - Packing as an Art (Prose) Grammar- Framing Questions Informal Letter and E-mail Brochures Itinerary Practical Speaking Skill : Dialogue / Role Play /Short Speech
2. Think Globally! Act Locally!	Think Globally (Prose) Growth of English Language study Specialisation in the field of medicine Time expression : Since or For Report writing : Sports day English for computers English for hospitality Message writing Resume and CV Covering letter Filling up forms Facing interviews
3. Dare The Waves!	Dare the waves (Prose) A passage on Disaster Management Language Study Polysemy, Homophones, Antigrams, Homonyms, Contranyms Article Writing Practicals Speaking Skill: Talk Show

பாடத்திட்டம் 2021–2022

வகுப்பு : 11 பாடம் : அறவியலும் இந்தியப் பண்பாடும்

அலகு	பாடப்பொருள்
1.தமிழகப் பண்பாடு – ஓர் அறிமுகம்	பாடம் முழுவதும்
2.சிந்துவெளி நாகரிகம்	நுழைவு வாயில் சான்றுகள் சிந்துவெளி நாகரிகமும் தமிழர் நாகரிகமும் நகர அமைப்பும் கட்டடங்களும் கட்டடக்கலை நீச்சல்குளம் தானியக் களஞ்சியம் சமுதாய நிலை பெண்களின் நிலை உணவுவகைகள் உடைகள் நகரநாகரிகம் சமயம்மற்றும்வழிபாடு கலைகள் எழுத்துகள் முத்திரைகள் சிந்துவெளி நாகரிகத்தின் அழிவு இந்தியப் பண்பாட்டு வளர்ச்சிக்குச் சிந்துவெளி நாகரிகத்தின் கொடை நிறைவுரை
3. தமிழ் இலக்கியங்கள் உணர்த்தும் வாழ்வியல் நெறிகள்	பாடம் முழுவதும்
4. தமிழர் கலைகள்	நுழைவு வாயில் கட்டடக்கலை சங்க காலம் சிற்பங்கள் பிரதிமைகள் பல்லவர் காலம் சோழர் காலம் செப்புத் திருமேனிகள் விஜயநகர மற்றும் நாயக்கர் காலம் ஓவியக்கலை இசைக்கலை பக்தி இயக்கமும் இசையும்
5. திருவிழாக்கள்	பாடம் முழுவதும்

SYLLABUS 2021–2022

CLASS: 11 SUBJECT: COMPUTER APPLICATIONS

UNIT	CONTENT
1. Introduction to Computers	1.1. Introduction to Computers 1.2. Generation of Computers 1.5. Components of a Computer
2. Number System	2.1. Introduction 2.2. Data Representation 2.3. Different Types Of Number System 2.4. Number System Conversion
3. Computer Organisation	3.1. Introduction 3.3. Data Communication Between CPU And Memory 3.5. Memory Devices
4. Theoretical Concepts of Operating System	4.1. Introduction To Software 4.2. Introduction To Operating System 4.4. Key Features Of The Operating System
5. Working With Windows Operating System	5.1. Introduction To Os 5.2. Introduction To Windows Os 5.5. Windows Desktop 5.9. Elements Of A Window 5.11. Managing Files And Folders
6. Introduction to Word Processor	6.1. Introduction To Word Processor 6.2. An Introduction To Open office Writer 6.3. Tamil Typing Interface 6.4. Editing A Document 6.5. Select, Move And Copy Text 6.10. Working With Header And Footer 6.11. Find And Replace 6.12. Spell Check 6.13. Working With Tables 6.15. Enhancing And Printing Document 6.16. Page Preview, Setting The Printer And Printing A Document

7. Working With Open office Calc	7.1. Introduction To Spreadsheet 7.2. Working With Openoffice Calc 7.3. Creating A New Worksheet 7.4. Entering Data 7.8. Autofill Feature 7.9. Inserting Columns, Rows And Cells 7.10. Deleting Columns, Rows And Cell 7.12. Functions
8. Presentation Basis	8.1. Presentation Software Meaning 8.6. Window Elements Of Impress 8.8. Formatting Presentation 8.9. Running The Slide Show 8.11. Master Slide 8.12. Creating Graphic Object 8.14. Inserting Audio And Video
9. Introduction to Internet and Email	9.1. Necessity Of Internet 9.2. Internet And Www 9.3. Types Of Internet Services 9.5. Email 9.6. Internet Threats 9.8. Webpage, Website -Difference 9.9. Static And Dynamic Webpages

PRACTICAL

Sl.No	Topic
1.	Open office Writer - Formatting Invoice
2.	Open office Calc - Interest Calculations
3.	HTML - Form Design