SYLLABUS FOR SESSION 2024-25

CLASS–XI

SUBJECT : PHYSICAL EDUCATION

COURSE CONTENT

APRIL & MAY			
Unit No., Name & Topics	**Specific Learning Objectives**	**Suggested Teaching Learning Process**	**Learning Outcomes with specific competencies**
UNIT–1 : Changing Trends and Careers in Physical Education 1. Concept, Aims & Objectives of Physical Education 2. Development of Physical Education in India – Post Independence 3. Changing Trends in Sports-playing surface, wearable gear and sports equipment, technological advancements 4. Career options in Physical Education 5. Khelo-India Program and Fit – India Program	• To make the students understand the meaning, aims, and objectives of Physical Education • To Teach students about the development of physical education in India after Independence. • To educate students about the development of sports surfaces, wearable gear, sports equipment, and technology. • To make students know the different career options available in the field. • To make them know about the Khelo India Program.	• Lecture-based instruction, • Technology-based learning. • Group learning. • Individual learning • Inquiry-based learning • Kinesthetic learning. • Game-based learning • Expeditionary learning	**After completing the unit, the students will be able to :** • Recognize the concept, aim, and objectives of Physical Education. • Identify the Post-independence development in Physical Education. • Categorize Changing Trends in Sports-playing surface, wearable gear, sports equipment, technological • Explore different career options in the field of Physical Education. • Make out the development of Khelo India and Fit India Program.
UNIT–2 : Olympism Value Education 1. Olympism – Concept, and Olympics Values (Excellence, Friendship & Respect)	• To make the students aware of Concepts and Olympics Values (Excellence, Friendship & Respect)	• Lecture-based instruction,	**After completing the unit, the students will be able to :** • Incorporate values of Olympism in your life.

2. Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance among Body, Will & Mind	• To make students learn about Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Others, Pursuit of Excellence, Balance Among Body, Will & Mind	• Technology-based learning. • Group learning. • Individual learning • Inquiry-based learning	• Differentiate between Modern and Ancient Olympic Games, Paralympics, and Special Olympic Games
3. Ancient and Modern Olympics	• To make students understand ancient and modern Olympic games.	• Kinesthetic learning.	• Identity the Olympic Symbol and Ideal
4. Olympics – Symbols, Motto, Flag, Oath, and Anthem	• To make the students aware of Olympics – Symbols, Motto, Flag, Oath, and Anthem	• Game-based learning	• Describe the structure of the Olympic movement structure
5. Olympic Movement Structure – IOC, NOC, IFS, Others members	• To make students learn about the working and functioning of IOC, NOC and IFS, and other members.	• Expeditionary learning	
UNIT–3 : Yoga			**After completing the unit, the students will be able to :**
1. Meaning and importance of Yoga	• To make the students aware of the meaning and importance of Yoga	• Lecture-based instruction,	• Recognize the concept of yoga and be aware of the importance, of it
2. Introduction to Astanga Yoga	• To make them learn about Astanga Yoga.	• Technology-based learning,	• Identify the elements of yoga
3. Yogic Kriyas (Shat Karma)	• To teach students about yogic kriya, specially shat karmas.	• Group learning, • Individual learning,	• Identify the Asanas, Pranayama's meditation, and yogic kriays
4. Pranayama and its types	• To make the learn and practice types of Pranayam.	• Inquiry-based learng, • Kinesthetic learning,	• Classify various yogic activities for the enhancement of concentration
5. Active Lifestyle and stress management through Yoga	• To make them learn the importance of yoga in stress management.	• Game-based learning and • Expeditionary learning	• Know about relaxation techniques for improving concentration

JULY			
UNIT–4 : Physical Education and Sports for Children with Special Needs 1. Concept of Disability and Disorder 2. Types of Disability, its causes & nature (Intellectual disability, Physical disability) 3. Disability Etiquette 4. Aim and objectives of Adaptive Physical Education. 5. Role of various professionals for children with special needs (Counselor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist, and Special Educator)	• To make the students aware concept of Disability and Disorder. • To make students aware of different types of disabilities. • To make students learn about Disability Etiquette • To make the students Understand the aims and objectives Adaptive Physical Education. • To make the students aware of role of various professionals for children with special needs.	• Lecture-based instruction, • Technology-based learning, • Group learning, • Individual learning, • Inquiry-based learng, • Kinesthetic learning, • Game-based learning and • Expeditionary learning	**After completing the unit, the students will be able to :** • Identify the concept of Disability and Disorder. • Outline types of disability and describe their causes and nature. • Adhere to and respect children with special needs by following etiquettes. • Identify possibilities and scope in adaptive physical education. • Relate various types of professional support for children with special needs along with their roles and responsibilities.
UNIT–5 : Physical Fitness, Wellness and Lifestyle 1. Meaning & importance of Wellness, Health, and Physical Fitness.	• To make the students understand the Meaning & importance of Wellness, Health, and Physical Fitness	• Lecture-based instruction, • Technology-based learning,	**After completing the unit, the students will be able to :** • Explain wellness and its importance and define the components of wellness. • Classify physical fitness and recognize its importance in life.

2. Components/ Dimensions of Wellness, Health, and Physical Fitness	• To make students aware of the Components / Dimensions of Wellness, Health, and Physical Fitness	• Group learning, • Individual learning,	• Distinguish between skill-related and health-related components of physical fitness.
3. Traditional Sports & Regional Games for promoting wellness	• To make students learn Traditional Sports & Regional Games to promote wellness	• Inquiry-based learning,	• Illustrate traditional sports and regional games to promote wellness.
4. Leadership through Physical Activity and Sports	• To develop Leadership qualities through Physical Activity and Sports in students	• Kinesthetic learning, • Game-based learning and	• Relate leadership through physical activity and sports
5. Introduction to First Aid – PRICE	• To make students learn First Aid and its management skills	• Expeditionary learning	• Illustrate the difference steps used in first aid – PRICE
JULY To AUGUST			
UNIT–6 : Test, Measurement & Evaluation			**After completing the unit, the students will be able to :**
1. Define Test, Measurements and Evaluation	• To introduce the students with the terms like test, measurement and evaluation along with its importance	• Lecture-based instruction, • Technology-based learning,	• Define the terms test, measurement, and evaluation
2. Importance of Test, Measurements and Evaluation in Sports		• Group learning,	• Differentiate norm and criterion referenced standard,
3. Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site)	• To introducing them the methods of calculating BMI, Waist-hip ratio and Skin fold measurement.	• Individual learning, • Inquiry-based learng,	• Differentiate formative and summative evaluation,
4. Somato Types (Endomorphy, Mesomorphy & Ectomorphy)	• To make the students aware of the different somatotypes.	• Kinesthetic learning, • Game-based learning and	• Discuss the importance of measurement and evaluation processes, • Understand BMI : A popular clinical standard and its computation
5. Measurements of health-related fitness	• To make the students learn the methods to measure health-related fitness.	• Expeditionary learning	• Differentiate between Endormophy, Mesomorphy & Ectomorphy h describe the procedure of Anthropometric

OCTOBER			
UNIT–7 : Fundamentals of Anatomy, Physiology in Sports 1. Definition and importance of Anatomy and Physiology in Exercise and Sports 2. Functions of Skeletal System, Classification of Bones, and Types of Joints. 3. Properties and Functions of Muscles. 4. Structure and Functions of Circulatory System and Heart. 5. Structure and Functions of Respiratory System.	• The students will learn the meaning and definition & identify the importance of anatomy, physiology, and kinesiology. • Students will understand the main functions and Classification of Bone and the Types of Joints. • The students will learn the Properties and Functions of Muscles. • The students will learn the Structure and Functions of the Circulatory System and Heart. • The students will learn the Structure and Functions of Respiratory System.	• Lecture-based instruction, • Technology-based learning, • Group learning, • Individual learning, • Inquiry-based learng, • Kinesthetic learning, • Game-based learning and Expeditionary learning	**After completing the unit, the students will be able to :** • Identify the importance of anatomy and physiology. • Recognize the functions of the skeleton. • Understand the functions of bones and identify various types of joints. • Figure out the properties and functions of muscles and understand how they work. • Understand the anatomy of the respiratory system and describe it's working. • Identify and analyses the layout and functions of CirculatorySystem.
UNIT–8 : Fundamentals of Kinesiology And Biomechanics in Sports 1. Definition and Importance of Kinesiology and Biomechanics in Sports. 2. Principles of Biomechanics	• The students will learn the meaning and definition & identify the importance of Kinesiology and Biomechanics in sports. • To make the students learn the principles of biomechanics.	• Lecture-based instruction, • Technology-based learning, • Group learning, • Individual learning,	**After completing the unit, the students will be able to :** • Understand Kinesiology and Biomechanics with their application in sports. • Explain biomechanical principles and their utilization in sports and physical education.

3. Kinetics and Kinematics in Sports 4. Types of Body Movements – Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation 5. Axis and Planes – Concept and its application in body movements	• To make the students understand the concept of Kinetics and Kinematics in Sports	• Inquiry-based learng, • Kinesthetic learning, • Game-based learning and Expeditionary learning	• Illustrate fundamental body movements and their basic patterns. • Learn about the Axis and Planes and their application with body movements.
NOVEMBER TO JANUARY			
UNIT–9 : Psychology and Sports 1. Definition and Importance of Psychology in Physical Education and Sports 2. Developmental Characteristics at Different Stages of Development 3. Adolescent Problems & their Management 4. Team Cohesion and Sports 5. Introduction to Psychological Attributes : Attention, Resilience, Mental Toughness	• The students will identify the definition and importance of Psychology in Physical Education and Sports. • The students will be able to differentiate characteristics of growth and development at different stages. • Students will be able to identify the issues and management related to adolescents. • The students will be able to understand the importance of team cohesion in sports. • Students will distinguish different Psychological Attributes like Attention, Resilience, and Mental Toughness.	• Lecture-based instruction, • Technology-based learning, • Group learning, • Individual learning, • Inquiry-based learng, • Kinesthetic learning, • Game-based learning and • Expeditionary learning	**After completing the unit, the students will be able to :** • Identify the role of Psychology in Physical Education and Sports • Differentiate characteristics of growth and development at different stages. • Explain the issues related to adolescent behaviour and Team Cohesion in Sports • Correlate the psychological concepts with the sports and athlete specific situations

UNIT–10 : Training & Doping in Sports 1. Concept and Principles of Sports Training 2. Training Load : Over Load, Adaptation, and Recovery 3. Warming-up & Limbering Down - Types, Method & Importance 4. Concept of Skill, Technique, Tactics & Strategies 5. Concept of Doping and its disadvantages	• To make the students aware about of concepts and principles of sports training. • To make students learn and understand the Training Load, Over Load, Adaptation and Recovery concepts. • To make students Understand the importance of warming up and limbering down exercises. • To introduce the terms like Skills, Techniques, Tactics, and Strategies to the students. • To make students aware of the doping substances and their disadvantages in sports.	• Lecture-based instruction, • Technology-based learning, • Group learning, • Individual learning, • Inquiry-based learng, • Kinesthetic learning, • Game-based learning and • Expeditionary learning	**After completing the unit, the students will be able to :** • Understand the concept and principles of sports training. • Summerise training load and its concept. • Understand the concept of warming up & limbering down in sports training and their type, method & importance. • Acquire the ability to differentiate between the skills, technique, tactics & strategies in sports training. • Interpret concept of doping.

GUIDELINES FOR INTERNAL ASSESSMENT (PRACTICAL / PROJECTS ETC.)

PRACTICAL (Max. Marks 30)

Physical Fitness Test : SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)*	6 Marks
Proficiency in Games and Sports (Skill of any one IOA recognized Sport/Game of Choice)**	7 Marks
Yogic Practices	7 Marks
Record File***	5 Marks
Viva Voce (Health/Games & Sports/Yoga)	5 Marks

- *Test for CWSN (any 4 items out of 27 items. One item from each component : Aerobic Function, Body Composition, Muscular strength & Endurance, Range of Motion or Flexibility)
- **CWSN (Children With Special Needs – Divyang) : Bocce / Boccia, Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of choice.
- **Children with Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/Game must be different from Test - 'Proficiency in Games and Sports'

******Record File shall include :***

- ***Practical-1*** **:** Fitness tests administration (SAI Khelo India Test)
- ***Practical-2*** **:** Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
- ***Practical-3*** **:** Anyone IOA recognized Sport/Game of choice. Labelled diagram of Field & Equipment. Also mention its Rules, Terminologies & Skills.

SUBJECT : CHEMISTRY

Recommended Books : NCERT Chemistry

PERIODIC TEST-I					
Chapter Name	**Topics**	**Value**	**Learning Outcomes**	**Proposed Activities (In School)**	**Proposed Activities (To be done at home for Revision)**
Some Basic Concepts of Chemistry	General Introduction : Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory : concept of elements atomic and molecules. Atomic and molecuilar masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoiciometry and calculations based on stoichiometry.	General awareness, mathematical aptitude and problem solving	The students will be able to : 1. State laws of chemical illustrations with suitable illustrations 2. Comprehend the concept of the Mole Concept 3. Solve numericals related to the Mole Concept, Stoichiometry and expressing concentration. 4. Calculate the molecular mass, empirical formula and molecular formula	To prepare standard solutions for Oxalic acid, Sodium bicarbonate and Sodium hydroxide Determination of molarity of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid.	Assignment, Numerical Practice and Class Test
Structure of Atom	Discovery of Electron, Proton and Neutron, Atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's Relationship, Heisenberg uncertainty principle, concept of	Logical reasoning and mathematical aptitude	The students will be able to : 1. Understand the stages in the development of the structure of atom 2. List the findings and limitations of various models of an atom. 3. Define and explain the concepts like Photoelectric effect, Planck's Quantum Theory, Black Body radiation, Heisenberg principle etc.	Basic laboratory techniques	Assignment, Numerical practices, Project work and Class Test

	orbitals, quantum numbers, shapes of *s, p* and *d* orbitals, rules for filling electrons in orbitals – Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbitals.		4. Write the set of different quantum numbers and electronic configurations for different elements 5. Solve numericals from different concepts of the chapter		
TERM-I					
Classification of Elements and Periodicity in Properties	Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements - atomci radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency, Nomenclature of elements with atomic number greater than 100.	Logical reasoning and critical thinking	The students will be able to : 1. Understand the need and scope of need of classification of elements. 2. Name the elements using IUPAC rules with atomic number greater than 100. 3. Define and explain the variations in trends across a period and down the group for Atomicsize, Ionization Enthalpy, Electron Gain Enthalpy, Valency, Metallic Character and Electronegativity. 4. Compare the properties for various elements	Activity to describe the concept of effective nuclear charge and its effect on atomic size, ionization potential etc.	Assignment, Project Work and Class Test
Chemical Bonding and Molecular Structure	Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence	Scientific aptitude and Logical Reasoning	The students will be able to : 1. Define and explain different types of bonds present in different molecules. 2. Comprehend the	To make 3-d models of different geometries using VSEPR theory.	Assignment, Practice of energy level diagrams and Class Test

	bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (quanlitative idea only), Hydrogen bond.		concept of polarity and its application. 3. Explain the structure of molecules on the basis of VSEPR Theory. 4. Understand the concept of Hybridization and shapes of molecules on its basis. 5. Draw the orbital diagrams and energy level diagrams for different molecules. 6. Define and explain the concept of Hydrogen bonding and its application.		
Thermo-dynamics	Concept of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics - internal energy and enthalpy, heat capacity and specific heat, measurement of U and H, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function,	Curiosity and open mindedness	The students will be able to : 1. Define and explain various terms related to Thermodynamics. 2. Derive expressions for Heat Capacities, Work done, First and Second Law of Thermodynamics. 3. Comprehend and use the concept of Hess's Law of Heat summation. 4. Understand the concept of Entropy and predict the sponaneity of a process. 5. Solve numericals from concepts related to Thermodynamics.	Crystallization of an impure sample of any one of the following : copper, sulphate, benzoic acid	Assignment, Numerical, Practice and Class Test

	Gibb's energy change for spontaneous and nonspontaneous process, critieria for equilibrium. Third law of thermodynamics (brief introduction).				
Organic Chemistry-General Principles and Techniques	Geneal introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond : inductive effect, electromeric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond : free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.	Awareness, logical reasoning and scientific temperament	The students will be able to : 1. Classify organic compounds as aliphatic and aromatic. 2. Write the IUPAC names for organic compounds following all rules of IUPAC. 3. Comprehend and explain electronic displacement-Inductive effect, Electromeric effect, Resonance and Hyperconjugation. 4. Compare the relative stability of various reaction intermediates. 5. Understand various qualitative and quantitative methods of compound analysis. 6. Solve numericals from quantitative analysis of compounds.	To analyse the given salt to detect the cation and anion present.	Assignment and Class Test
PERIODIC TEST-II					
Equilibrium	Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium - ionization of acids and	Awareness and analytical approach	The students will be able to : 1. Define equilibrium and list the factors affecting equilibrium. 2. List the characteristics of equilibrium. 3. Comprehend the concept of acids and	Determination of pH of some solutions obtained from fruit juices, solutions of known and varied concentrations of acids, bases	Assignment, Numerical practice and Class Test

	bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).		bases-Arrhenius, Bronsted and Lewis. 4. Understand and calculate the pH of different solutions. 5. Define and explain the Buffer action and common ion effect.	and salts using pH paper.	
Redox Reactions	Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.	Scientific aptitude and problem solving	The students will be able to : 1. Comprehend the concept of oxidation, reduction, oxidizing agent and reducing agent. 2. Calculate the oxidation number of the elemnent in a molecule. 3. Balance the redox reactions using oxidation number method and ion electron method. 4. List the applications of redox reactions.	To analyse the given salt to detect the cation and anion present.	Assignment, practice of balancing of equations, Project work and Class Test
Hydrocarbon	Classification of Hydrocarbons Aliphatic Hydrocarbons : Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, structure	Conscious-ness, awareness and problem solving	The students will be able to : 1. Classify hydrocarbhons as alkane, alkenes, alkynes and aromatic. 2. List the methods of preparation of different types of compounds. 3. Write the reactions for chemical properties of different set of compounds. 4. Explain and write the	To analyse the given salt to detect the cation and anion present.	Assignment, Project Work and Class Test

	of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions : addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions : acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons : Introduction, IUPAC nomenclature, benzene : resonance, aromaticity, chemical properties : mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity		mechanism of reactions. 5. Compare the properties of different hydrocarbons.		

TERM-II FULL SYLLABUS

SUBJECT : ENGLISH

TERM-I				
Topics	**Sub-Topics**	**Learning Objectives**	**Activities / Projects / Practicals**	**Assessment Tools & Values**
1. Reading	• Unseen passage : Factual Descriptive / Literary • Unseen Case-based factual passage • Note-Making	Students will be able to : 1. Engage themselves in the text. 2. Decode, analyze, infer & interpret the text. 3. Understand the core concept of the given passage and answer accordingly. 4. Take down notes from reading.	• Reading Newspapers and drawing inferences from Reading Passages. • Skimming a passage and making notes from text.	• Worksheets • Assignments • Accuracy • Critical thinking
2. Grammar & Creative Writing Skills	• Gap filling • Reordering / Transformation of Sentences • Classified Advertisement • Poster Making • Speech Writing • Debate Writing	Students will be able to : 1. Draft advertisements and design posters effectively & appropriately. 2. Express opinions, facts, arguments in the form of speech or debates, using variety of accurate sentence structures,	• Poster making competition and decorating bulletin board.	• Worksheets • Assignments • Logical Reasoning
3. Literature Textbook & Supple-mentary Reading Text	**HORNBILL (Prose)** • The Portrait of a Lady	Students will be able to : 1. Know the sacrifices and support given by the grandparents in the family. 2. Strengthen the family bonds by accepting the situation.	Classroom Discussion on : • Qualities of your Grandparents that you admire the most.	• Worksheets • Assignments • Class Test • Empathy
	• We're not Afraid to die...	Students will be able to : 1. realise that hazardous experience teaches one to face the adverse circumstances with courage.	• About any Adventurous Trip. (Descriptive Paragraph)	• Worksheets • Class-Test • Courage and determination

		2. Understand that presence of mind along with the practical knowledge is important to take instant decisions.		
	• Discovering Tut : The Saga Continues	Students will be able to : 1. Respect other's beliefs, customs & rituals. 2. Develop inquisitiveness towards historical events & people.	• Discussion about Tombs, Pyramids & Egypt. • Internet Surfing for the same.	• Assignments • Worksheets • Class Test • Critical thinking
	HORNBILL (Poetry) • A Photograph	Students will be able to : 1. Understand that "time and tide wait for none." 2. Understand the importance of human relationships.	• Describe a photograph that one admires the most. (Speaking Activity)	• Extract-based Questions • Assignments • Class Test • Analytic thinking
	• The Laburnum Top	Students will be able to : 1. Understand the importance of a mother even amongst the animals / birds. 2. Comprehend the nature through poetry.	• About Seasons and their significance (Speech Activity)	• Extract-based Questions • Assignments • Class Test • Care for nature
	• The Voice of the Rain	Students will be able to : 1. Understand rain as the life giving force on the earth. 2. Understand the need of sustainable development.	• Discussion about Water-Cycle. • Importance of Rain.	• Extract-based Questions • Assignments • Class Test • Care for nature
Supplementary Reading Text	**SNAPSHOTS (Prose)** • The Summer of the beautiful White Horse	Students will be able to : 1. inculcate the values of respecting one's belief, honesty, confession and sharing responsibility. 2. Understand why it is important to restore cultural values.	• Recalling the story – "Honesty is the best policy"	• Worksheets • Assignments • Class Test • Logical Reasoning
	• The Address	Students will be able to : 1. understand to forget the past and move ahead in life.	• Discussion about the importance of things	• Worksheets • Class Test

		2. realize the value of time and not to be upset with old memories.	at home with persons.	• Logical Reasoning
	• Mother's Day	Students will be able to : 1. Understand the importance of a mother in a family. 2. Know that mothers have equal rights to enjoy their lives & deserve appreciation for their work.	• About Mother & her Role in a family. (Role-Playing)	• Worksheets • Class Test • Empathy
TERM-II				
1. Reading	• Unseen passage : Factual Descriptive / Literary • Unseen Case-based factual passage • Note-Making	Students will be able to : 1. Engage themselves in the text. 2. Decode, analyze, infer & interpret the text. 3. Understand the core concept of the given passage and answer accordingly. 4. Take down notes from reading.	• Reading Newspapers and drawing inferences from Reading Passages. • Skimming a passage and making notes from text.	• Worksheets • Assignments • Accuracy • Critical thinking
2. Grammar & Creative Writing Skills	• Gap filling • Reordering / Transformation of Sentences • Classified Advertisement • Poster Making • Speech Writing • Debate Writing	Students will be able to : 1. Draft advertisements and design posters effectively & appropriately. 2. Express opinions, facts, arguments in the form of speech or debates, using variety of accurate sentence structures,	• Poster making competition and decorating bulletin board.	• Worksheets • Assignments • Logical thinking
3. Literature Textbook & Supplementary Reading Text	**HORNBILL (Prose)** • The Adventure	Students will be able to : 1. Understand that reality is what is directly experienced through the senses. 2. Understand that the methods of inquiry of history, science and the philosophy are similar.	Classroom Discussion on : • Time Travel • Parallel World	• Worksheets • Assignments • Class Test • Critical thinking

	• Silk Road	Students will be able to : 1. Write a narrative description of one's own journey. 2. Learn about the different cultures of the different countries and how these got exchanged. 3. Learn about the travel agents and how they help the tourists to know about a place thoroughly.	Write up on : • A Memorable Trip	• Worksheets • Assignment • Class-Test • Critical thinking
	HORNBILL - (POETRY) - Childhood	Students will be able to : 1. Differentiate between innocence & maturity. 2. Gain individuality, accept differences, become sensible. 3. Think, analyze and observe.	Speaking Activity on : • Share your childhood experiences	• Worksheet • Assignment • Class Test • Extract based questions • Logical Reasoning
	- Father to Son	Students will be able to : 1. Value relationships 2. Confess and resolve conflicts 3. Learn Social norms 4. Respect elders and their views	Classroom Discussion on : • Generation Gap	• Worksheet • Assignment • Class Test • Extract based questions • Empathy
Supple-mentary Reading Text	• Birth	Students will be able to : 1. Understand the sense of duty. 2. Appreciate and accept the selfless service to mankind. 3. Realize and create a balance between the knowledge gained and practical approach.	Group Discussion on : • Medical Advancements	• Worksheets • Assignments • Class Test • Analytic thinking
	• The Tale of Melon City	Students will be able to : 1. realise that peace and liberty are the two strong factors for a state to flourish. 2. Analyze situations and take appropriate decisions. 3. Understand the proper use of power and skills.	Classroom Discussion on : • Kings & Rulers	• Worksheets • Assignments • Class Test • Logical Reasoning

SUBJECT : APPLIED MATHEMATICS (241)

Recommended Books : NCERT APC Book by M.L. Aggarwal

TERM-I (APRIL TO SEPTEMBER)				
Chapters	**Topics**	**Learning Objectives**	**Values**	**Activities**
Numbers	Binary Numbers	• Express decimal numbers in binary system • Express binary numbers in decimal system	Problem Solving	Crack the code of Binary numbers
Indices and Logarithms	Indices, Logarithm and Antilogarithm	• Relate indices and logarithm / antilogarithm • Find logarithm and antilogarithms of given number	Creativity	Create Real Life examples
	Laws and properties of logarithms	• Enlist the laws and properties of logarithm • Apply laws of logarithm	Problem Solving	
	Simple applications of logarithm and antilogarithm	• Use logarithm in different applications		
Quantitative Aptitude	Averages	• Determine average for a given data	Logical Thinking	Decode the day for a given date.
	Clock	• Evaluate the angular value of a minute • Calculate the angle formed between two hands of clock at given time • Calculate the time for which hands of clock meet		
	Calendar	• Determine Odd days in a month / year / century • Decode the day for the given date		
	Time, Work and Distance	• Establish the relationship between work and time • Compare the work done by the individual / group w.r.t. time • Calculate the time taken / distance covered/ Work done from the given data		

Mensuration	Mensuration	• Solve problems based on surface area and volume of 2D and 3D shapes • Calculate the volume/surface area for solid formed using two or more shapes	Understanding	Case study Based Questions
	Seating arrangements	• Create suitable seating plan/ draft as per given conditions (Linear / circular) • Locate the position of a person in a seating arrangement		
Sets and Relations	Introduction to sets – definition	• Define set as well-defined collection of objects	Creativity	Venn Diagram
	Representation of sets	• Represent a set in Roster form and Set builder form		
	Types of sets and their notations	• Identify different types of sets on the basis of number of elements in the set • Differentiate between equal set and equivalence set		
	Subsets	• Enlist all subsets of a set • Find number of subsets of a given set • Find number of elements of a power set		
	Intervals	• Express subset of real numbers as intervals		
	Venn diagrams	• Apply the concept of Venn diagram to understand the relationship between sets • Solve problems using Venn diagram		
	Operations on sets	• Perform operatoins on sets to solve practical problems		
	Ordered pairs Cartesian product of two sets	• Explain the significance of specific arrangements of elements in a pair • Write Cartesian product of two sets		

		• Find the number of elements in a Cartesian product of two sets		
	Relations	• Express relation as a subset of Cartesian product • Find domain and range of a relation		
Sequences and Series	Sequence and Series	• Differentiate between sequence and series	Acquaintance different aspects of Mathematics used in daily life. Problem Solving	With Real life examples of A.P. and G.P.
	Arithmetic Progression	• Identify Arithmetic Progression (AP) • Establish the formulae of finding *n*th term and sum of *n* terms • Solve application problems based on AP • Find arithmetic mean (AM) of two positive numbers		
	Geometric Progression	• Identify Geometric Progression (GP) • Derive the *n*th term and sum of *n* terms of a given GP • Solve problems based on applications of GP • Find geometric mean (GM) of two positive numbers • Solve problems based on relation between AM and GM		
	Applications of AP and GP	• Apply appropriate formulas of AP and GP to solve application problems		
Permutations and Combinations	Factorial	• Define factorial of a number • Calculate factorial of a number	To develop interest in the subject by participating in related competitions	Quiz
	Fundamental Principle of Counting	• Appreciate how to count without counting		
	Permutations	• Define permutation • Apply the concept of permutation to solve simple problems		

	Combinations	• Define combination • Differentiate between permutation and combination • Apply the formula of combination to solve the related problems		
Mathematical Reasoning	Logical Reasoning	• Solve logical problems involving odd man out, syllogism, blood relation and coding decoding	Logical Reasoning	Quiz
Functions	Functions	• Identify dependent and indepenent variables • Define a function using dependent and independent variable	Creativity	Graphs
	Domain and Range of a function	• Define domain, range and co-domain of a given function		
	Types of functions	• Define various types of functions • Identify domain, co-domain and range of the function		
	Graphical representation of functions	• Representation of function graphically		
Limits and Continuity	Concepts of limits and continuity of a function	• Define limit of a function • Solve problems based on the algebra of limits • Define continuity of a function	Problem Solving	Competency Based Questions
Differentiation	Instantaneous rate of change	• Define instantaneous rate of change	Acquaintance with different aspects of Matheamtics used in daily life.	Competency Based Questions
	Differentiation as a process of finding derivative	• Find the derivative of the functions		
	Derivatives of algebraic functions using Chain Rule	• Find the derivative of function of a function		
Probability	Introduction	• Appreciate the use of Probabilty in daily life situations		

	Random experiment and sample space	• Define random experiment and sample space with suitable examples	Logical Reasoning	Activity on Bayes Theorem
	Event	• Define an event • Recognize and differentiate different types of events and find their probabilities		
	Conditional Probability	• Define the concept of conditional probability • Apply reasoning skills to solve problems based on conditional probability		
	Total Probability	• Interpret mathematical information and identify situations when to apply total probability • Solve problems based on application of total probabily		
	Bayes' Theorem	• State Bayes' theorem • Solve practical problems based on Bayes' Theorem		
TERM-II (OCTOBER TO FEBRUARY)				
Descriptive Statistics	Measure of Dispersion	• Understand meaning of dispersion in a data set • Differentiate between range, quartile deviation, mean deviation and standard deviation • Calculate range, quartile deviation, mean deviation and standard deviation for ungrouped and grouped data set • Choose appropriate measure of dispersion to calculate spread of data	Logical Thinking	Activity on Correlation
	Skewness and Kurtosis	• Define Skewness and Kurtosis using graphical representation of a data set • Interpret Skewness and Kurtosis of a frequency		

		distribution by plotting the graph • Calculate coefficient of Skewness and interpret the results.		
	Percentile rank and Quartile rank	• Define Percntile rank and Quartile rank. • Calculate and interpret Percentile and Quartile rank of scores in a given data set		
	Correlation	• Define correlation in values of two data sets • Calculate Product moment correlation for ungrouped and grouped data • Calculate Karl Pearson's coefficient of correlation • Calculate Spearman's rank correlation • Interpret the coefficient of correlation		
	Interest and Interest Rates	• Define the concept of Interest Rates • Compare the difference between Nominal Interest Rate, Effective Rate and Real Interest Rate		
		• Solve Practical applications of interest rate		
Compound Interest and Annuity	Accumulation with simple and compound interest	• Interpret the concept of simple and compound interest • Calculate Simple interest and Compound interest	Accumulation with single and Compound Interest	Impact of high interest rates and low interest rates on Business
	Simple and compound interest rates with equivalency	• Explain the meaning, nature and concept of equivalency • Analyze various examples for understanding annual equivalency rate		
	Effective rate of interest	• Define with examples the concept of effective rate of interest		

	Present value, net present value and future value	• Interpret the concept of compounding and discounting along with practical applications • Compute net present value • Apply net present value in capital budgeting decisions	Logical Reasoning	
	Annuities, Calculating value of Regular Annuity	• Explain the concept of immediate Annuity, Annuity due and Deferred Annuity • Calculate General Annuity		
	Simple applications of regular annuities (upto 3 period)	• Calculate the future value of regular annuity, annuity due • Apply the concept of Annuity in real life situations		
Taxation	Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax	• Explain fundamentals of taxation • Differentiate between Direct and indirect tax • Define and explain GST • Calculate GST • Explain rules under-State	Understanding	Compute the Income Tax
		Goods and Services Tax (SGST) Central Goods and Services Tax (CGST) and Union Territory Goods and Services Tax (UTGST)		
Utility Bills	Bills, tariff rates, fixed charge, surcharge, service charge	• Describe the meaning of bills and its various types • Analyze the meaning and rules determining tariff rates • Explain the concept of fixed charges	Analytical Thinking	Calculate units consumed under Electric Bills
	Calculation and interpretation of electricity bill, water supply bill and other supply bills	• To interpret and analyze electricity bills, water bills and other supply bills • Evaluate howe to calculate units consumed under electricity bills/water bill		

Straight Lines	Straight line	• Find the slope and equation of line in various form • Find angle between the two lines • Find the perpendicular from a given point on a line • Find the distance between two parallel lines	Analytical Thinking	Case study Based Questions
Circles and Parabola	Circle Parabola	• Define a circle • Find different form of equations of a circle • Solve problems based on applications of circle • Define parabola and related terms • Define eccentricity of a parabola • Derive the equation of parabola	To acquire the knowledge and critical understanding	Case Study Based Questions

SYLLABUS FOR SESSION 2024-25

CLASS–XI

SUBJECT : MUSIC VOCAL (034)

प्रकरण	अधिगम उद्देश्य	जीवन कौशल	कला एकीकृत गतिविधियाँ
TERM-I			
1. अलंकार, संगीत, नाद, श्रुति, स्वर, सप्तक।	अलंकार, संगीत के ज्ञान से विद्यार्थियों को संगीत की मूल जानकारी के साथ-साथ लय तथा लयकारियों का ज्ञान मिलेगा।	इस ज्ञान के बिना विद्यार्थियों का सांगीतिक ज्ञान रसहीन होता है।	इनके माध्यम से विद्यार्थी गायन का अभ्यास करके कंठ को मधुर बनायेंगे।
2. थाट, थाट के नियम, जाति, जाति की किस्में, लय, ताल।	इनके ज्ञान से विद्यार्थी भारतीय शास्त्रीय संगीत से जुड़ी जानकारी पायेंगे तथी संगीत की बारीकियों से अवगत होंगे।	इस ज्ञान के बिना विद्यार्थी का सांगीतिक ज्ञान आधारहीन होता है।	विद्यार्थी भारतीय शास्त्रीय संगीत की मुख्य परिभाषायें पढ़ेंगे।
3. मार्गी–देसी, राग	इनके अध्ययन से संगीत की पौराणिक जानकारी व शास्त्रीय संगीत के मूल आधार राग का ज्ञान विद्यार्थी से मिलता है।	इसके ज्ञान के अभाव से विद्यार्थी संगीत की पौराणिकता तथा संगीत के मूल आधार से वंचित रहते हैं।	विद्यार्थी संगीत के मूल आधार का अध्ययन करेंगे।
4. ध्रुपद, ख्याल, तराना	विद्यार्थियों को भारतीय शास्त्रीय संगीत की प्रमुख गायन शैलियों का ज्ञान होता है।	इस ज्ञान के अभाव में शास्त्रीय संगीत का ज्ञान संभव नहीं।	विद्यार्थी शास्त्रीय संगीत की इन विशेष शैलियों का अध्ययन तथा अभ्यास करते हैं।
5. नाट्य शास्त्र में संगीत तत्त्व मतंग–बृहद्वेशी	नाट्य शास्त्र में लिखी गयी संगीत की गूढ़ जानकारी के साथ-साथ प्राचीन काल में लिखे ग्रन्थ बृहद्वेशी के माध्यम से संगीत की बारीकियों का ज्ञान विद्यार्थी लेंगे।	इनके माध्यम से विद्यार्थीगण संगीत की पौराणिक जानकारी पा सकते हैं।	प्राचीन काल में लिखे गये इन ग्रन्थों में लिखी संगीत की गूढ़ता का विद्यार्थी अध्ययन करेंगे।
TERM-II			
6. तानसेन, विष्णु नारायण भातखंडे, विष्णु दिगंबर पलुस्कर जीवनी	भारतीय संगीत के इन महान विद्वानों के जीवन तथा उनके सांगीतिक योगदान की जानकारी विद्यार्थीगण लेंगे।	इन जीवनियों के माध्यम से विद्यार्थीगण इन महान गायकों की विद्वता से अवगत होंते हैं।	इन महान् शास्त्रीय संगीतकारों के जीवन का अध्ययन विद्यार्थीगण करेंगे।
7. तीन ताल, सूल ताल, एक ताल, चौताल	गायन के लिये अति अनिवार्य इन तालों के नियम, बोल इत्यादि का अध्ययन विद्यार्थीगण करेंगे तथा तालों में गायन करने से विद्यार्थियों का गायन मधुर होगा।	तालों के ज्ञान के अभाव में गायन संभव ही नहीं।	विद्यार्थीगण इन तालों के अध्ययन के साथ-साथ इन्हें हाथ पर बजाना सीखेंगे।

8. तानपूरा 9. राग बिहाग, भीमपलासी, भैरवी	गायन के अभ्यास के लिये अति अनिवार्य इस वाद्य की संपूर्ण जानकारी विद्यार्थी लेंगे। भारतीय शास्त्रीय संगीत के रागों का अध्ययन विद्यार्थीगण करेंगे।	इस वाद्य के साथ गायन का अभ्यास करने से स्वर ज्ञान होता है। रागों के ज्ञान के अभाव में संगीत शिक्षा आधार हीन है।	इस वाद्य के विभिन्न भागों तथा इसके प्रयोग की जानकारी विद्यार्थी लेंगे। विद्यार्थी रागों के अध्ययन के साथ-साथ इनके गायन का अभ्यास करेंगे।

SYLLABUS OF MUSIC VOCAL (PRACTICAL)

Sr. No.	Topics
1.	One vilambit Khayal with simple elaborations and few tanas in any one of the prescribed Ragas.
2.	One Drut Khayal with simple elaboration and few tanas in the following Ragas-Bihag, Bhairavi and Bhimpalasi.
3.	One Dhrupad with Dugun in any one of the prescribed Ragas.
4.	One Devotional Song.
5.	Ability to recognize the prescribed Ragas from the phrases of Swaras rendered by the Examiner.
6.	Recitation of the Thekas of Teentala, Chautala and Ektala with Dugun and Chaugun, keeping Tala with hand beats.

SUBJECT : MATHEMATICS (041)

Recommended Books : NCERT

TERM-I (APRIL TO SEPTEMBER)				
Chapters	**Topics**	**Learning Objectives**	**Values**	**Activities**
1. Sets	Sets and Types of sets, Subsets, Universal set, Venn diagrams, Union, Intersection of sets, Complement of a set.	• Sets and their representations, Empty set, • Finite and infinite sets, Equal sets, Subsets • Subsets of a set of real numbers especially intervals (with notations), Universal set, Venn diagrams, Union and Intersection of sets • Difference of sets • Complement of a set	Creativity	To find the no. of subsets of a given set and verify the no. of subsets in a set
4. Complex Numbers	Complex numbers, especially $\sqrt{-1}$, Algebraic properties of complex numbers.	• Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of Algebraic properties of complex numbers. • Argand plane.	Acquaintance with different aspects of Mathematics used in daily life.	To interpret geometrically the meaning of $i = \sqrt{-1}$ and its integral powers.
5. Linear Inequalities	Linear inequalities, Algebraic solutions of linear inequalities and their representation.	• Linear inequalities. • Algebraic solutions of linear inequalities in one variable and their representation on the number line	• Creativity • Problem Solving	Case Study
11. 3-D geometry	Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.	• Coordinate axes and coordinate planes in three dimensions. • Coordinates of a point. Distance between two points.	Tp acquire knowledge and critical understanding	To explain the concept of octants by three mutually ⊥ar planes in space.

3. Trigonometry	Positive and negative angles. Angles in radians and in degrees. Definition of trigonometric functions with the help of unit circle.	• Positive and negative angles. • Measuring angles in radians and in degrees and conversion from one measures to another. • Definition of trigonometric functions with the help of unit circle.	Reasoning To feel the flow of reasons while proving a result.	To verify the relation between degree and radian measure of an angle.
	Identity $\sin^2 x + \cos^2 x = 1$, for all x. Trigonometric functions. Domain and range of trigonometric functions and their graphs.	• Truth of the identity $\sin^2 x + \cos^2 x = 1$, for all x. • Signs of trigonometric functions. • Domain and range of trigonometric functions and their graphs. • Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications.	Critical Understanding	
13. Statistics	Measures and Dispersion; Range, Mean deviation, variance and standard deviation of ungrouped/ grouped data.	• Measures of Dispersion : • Range, Mean deviation, variance and standard deviation of ungrouped/ grouped data.	Acquaintance of Dispersion with different aspects of Mathematics used in daily life.	Case Study
6. Permutations and Combinations	Fundamental principle of counting, Factorial n. ($n!$) Permutations and Combinations	• Fundamental principle of counting, Factorial n ($n!$) • Permutations and combinations, derivation of Formulae for $P(n, r)$ and $C(n, r)$ and their connections, simple applications	To develop interest in the subject by participating in related competitions.	To find the no. of ways of solution of required cards from given pack of cards.
7. Binomial Theorem	Statement and proof of the binomial theorem for positive integral.	• Historical perspective, • Statement and proof of the binomial theorem for positive integral indices. • Pascal's triangle.	Acquaintance with different aspects of Mathematics used in daily life.	To construct a Pascal's triangle and to write binomial expansion for given positive integral exponent.

2. Relations & Function	Ordered pairs. Elements in the Cartesian product of two finite sets. Definition of relation, domain, co-domain and range of relation function.	• Ordered pairs, Cartesian product of sets. • Number of elements in the Cartesian product of two finite sets. • Cartesian product of the set of reals with itself (upto R × R × R) • Definition of relation, pictorial diagrams, co-domain and range of a relation. • Function as a special type of relation.	To identity a relation and function	To find the total no. of relations from given sets.
	Pictorial representation of a function, Real valued functions, Types of functions, with their graphs. Sum, difference, product and quotients of functions.	• Pictorial representation of a function, domain, co-domain and range of a function. • Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. • Sum, difference, product and quotients of functions.		Pictorial representation showing difference between relation and function.
TERM-II (OCTOBER TO FEBRUARY)				
8. Sequences and Series	Arithmetic Mean (A.M.) Geometric Progression (G.P.) Infinite G.P. Geometric mean, Relation between A.M. and G.M.	• Sequence and Series. • Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., • Sum of *n* terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.	• Acquaintance with different aspects of Mathematics used in daily life. • Problem Solving	To demonstrate the comparison between AM & GM geometrically.
14. Probability	Events; 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set	• Events; occurrence of events, 'not', 'and' and 'or' events exhaustive events, mutually exclusive events. • Axiomatic (set theoretic) probability, connections with	• Logical reasoning	Case Study

	theoretic) probability, Probability of an event, probability of 'not', 'and' and 'or' events.	other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.		
9. Straight Lines	Slope of a line and angle between two lines. Different forms of equations of a line.	• Brief recall of two dimensional geometry from earlier classes. • Slope of a line and angle between two lines. • Various forms of equations of a line : parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form, • Distance of a point from a line.	Analytical Thinking Logical Reasoning	Case Study
10. Conic Sections	Sections of a cone : circles, ellipse, parabola, hyperbola, Standard equations of parabola, ellipse, hyperbola and circle.	• Sections of a cone : Circles, ellipse, parabola, hyperbola, a point, a straight line and pair of intersecting lines as a degenerated case of a conic section. • Standard equations and simple properties of parabola, ellipse and hyperbola. • Standard equation of a circle.	To acquire knowledge and critical understanding	Alternative methods of construction of conic sections
12. Limits and derivatives	Intuitive idea of limit. Limits of various functions Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of various functions.	• Derivative introduced as rate of change both a that of distance function and geometrically. • Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. • Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. • Derivatives of polynomial and trigonometric functions.	Acquaintance with different aspects of Mathematics used in daily life.	Case study

SUBJECT : INFORMATICS PRACTICES

UNIT–I

Unit 1 : Introduction to Computer System

- Introduction to computer and computing : evolution of computing devices, components of a computer system and their interconnections, Input/output devices.
- Computer Memory : Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns.
- Software : purpose and types – system and application software, generic and specific purpose software.

Unit 3 : Database concepts and the Structured Query Language (divided to Term-I and II)

- Structured Query Language : Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL : Creating a database, using database, showing tables using MySQL,
- Data Types : char, varchar, int, float, date.
- Data Definition Commands : CREATE
- Data Query Commands : SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY,

TERM-I

Unit 2 : Introduction to Python (divided to Term-I and II)

- Basics of Python programming, execution modes : Interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operator, precedence of operators, data types, mutable and immutable data types, statements, expression evaluation, comments, input and output statements, data type conversion, debugging.

Unit 3 : Database concepts and the Structured Query Language (divided to Term-I and II)

- Data Definition Commands : DROP, ALTER (Add and Remove primary key, attribute).
- Data Query Commands : SELECT using arithmetic, logical, relational operators and NULL values in queries, distinct clause Data Manipulation Commands : INSERT, UPDATE, DELETE.
- Database Concepts : Introduction to database concepts and its need, Database Management System, Relational data model : concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key.

UNIT–II

Unit 2 : Introduction to Python

- Control statements : If-else, for loop, while loop.

Unit 4 : Introduction to the Emerging Trends

- Artificial Intelligence, Machine Learning, Natural Language Processing.
- Immersive experience (AR, VR), Robotics, Big data and its characteristics.
- Internet of Things (IoT), Sensors, Smart cities
- Cloud Computing and Cloud Services (SaaS, IaaS, PaaS);
- Grid Computing, Block chain technology

TERM-2

Unit 2 : Introduction to Python

- Lists : list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions - len( ), list( ), append( ), insert( ), count( ), index( ), remove( ), pop( ), reverse( ), sort( ), min( ), max( ), sum( ).
- Dictionary; concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions - dict( ), len( ), keys( ), values( ), items( ), update( ), del, clear( )

SUBJECT : COMPUTER SCIENCE (083)

UNIT–I

Unit-1 (Chapter 1, 2)

- Basic Computer Organisation, Memory Units, Types of Software
- Boolean Logic, Number System, Operating System
- Cloud Computing

TERM-I

Unit-2 (Chapter 3, 4, 5, 6, 7)

- Computational Thinking, algorithms, Flow Chart, Features of python, character setc, tokens, variables
- Datatypes and operators, Execution of program, errors, conditional statements, Iteration, String manipulation

UNIT–II

Unit-2 (Chapter 7, 8, 9, 10, 11)

- List Definition, Creation, Manipulation
- Tuples-Definition, Creation, Manipulation
- Dictionary-Definition, Creation, Methods, Manipulation
- Python Modules

TERM-2

Unit-3 (Chapter 12)

- Cyber Safety
- Appropriate use of Social networks
- Safety across websites, intellectual rights, fraud, cyber crime, IT Act 2000, E-waste management.

SUBJECT : PAINTING (049)

TERM-I			
Topic – Sub-Topic	**Learning Objectives**	**Values**	**Activity**
TOPIC – Pre-Historic Rock Painting 1.(A) Pre-Historic Rock-Paintings Introuction 2. Period and Location 3. Study and appreciation of following Pre-historic paintings (i) Wizard's Dance, (B) Bhimbethaka Introduction 1. Period and Location 2. Extension : In about 1500 miles.	Students will learn about art as a cultural and historical record. Student will explore the culture of early time, Prehistoric meaning out dating back to the time.	They can learn life in ancient time and what kinds of art were created in early times.	Students will create a cave painting and a relief sculpture in the form of a diorama.
TOPIC – Art of Indus Valley Civilization 1. Introduction 2. Study and appreciation of the following : (i) Dancing Girl (ii) Male Tarso (iii) Mother Goddess (iv) Bull Seal (v) Painted Earthen-Ware (Jar)	Students will be able to : Know about the date of Harappa Civilization. Name the art work which are mentioned in this lesson, describe the site of finding size, style and place of collection of the enlisted are objects.	The social and economic life and knowledge about the Indian art and concept of beauty through the different art movements.	Students will make any item with clay.
TOPIC – Buddhist, Jain and Hindu Art 1. General Introduction to Art during Mauryan, Shunga, Kushana (Gandhara and Mathura Styles) and Gupta Period : (i) Lion Capital from Sarnath	Students will be able to : Understand and explain the key similarities among Hinduism, Buddhism and Jainism.	They can learn human life values and different culture and lifestyle.	make one collage of Buddhist, Jain and Hindu art.

(ii) Chauri Bearer from Didar Ganj (iii) Seated Budha from Katra Mound (iv) Jain Tirathankara			
TOPIC – Art of India Introduction, Location, Period, Subject Matter and Technique etc.	Students will be able to : • Identify the main historical founder of this era.	It improves cognitive abilities and encourages critical thinking and decision making abilities.	Make one painting related to Buddha.
TERM-II			
TOPIC – Unit 3. Temple Sculpture, Bronzes and artistic aspects of Indoa-Islamic Architecture 1. Introduction to Temple Sculptures (i) Descent of Ganga (ii) Trimurti (iii) Lakshmi Narayana (iv) Cymbal Player (v) Mother and Child (B) Bronzes 1. Introduction to Indian Bronzes 2. Method of Casting 3. Study and appreciation of following South Indian Bronzes : (i) Nataraj (C) Artistic Aspects of the Indo-Islamic Architecture : 1. Introduction 2. Study of following architectures : (i) Qutub Minar (ii) Gol Gumbad	Students will be able to : • Critically analyse sculpture, architecture and urban landscapes from South Asia using appropriate voacbulary. • Understanding of key theme and approaches to the study of religious art in South Asia.	Develop perceptual Skills, sensitivity, association, imagination, observation and creativity through looking at and responding to various work of art and visual phenomena.	Make one monument painting on A2 size sheet.

PRACTICAL

One Practical Paper **70 Marks**

Time : 6 Hours

UNIT WISE WEIGHTAGE

Units	Content	Periods	Marks
1	Nature and Object Study	50	25
2	Painting Competition	50	25
3	Portfolio Assessment	48	20
		148	70

Unit 1 : Nature and Object Study **25 Marks 50 Periods**

Study of two or three natural and geometric forms in pencil with light and shade from a point of view. Natural forms like plants, vegetables, fruits and flowers, etc., are to be used Geometrical forms of objects like cubes, cones, prisms, cylinders and spheres should be used.

Unit 2 : Painting Composition **25 Marksd 50 Periods**

(i) Simple exercises of basic design in variation of geometric and rhythmic shapes geometrical and decorative designs and colours to understand designs as organism visual arrangements. 10 Marks 25 Periods

(ii) Sketches from life and nature 15 Maks 25 Periods

Unit 3 : Portfolio Assessment **20 Marks 48 Periods**

(a) Record of the entire years performance from sketch to finished products. 10 Marks

(b) Five selected nature and object study exercises in any media done during session including the minimum of two still life exercises. 05 Marks

(c) One selected work of paintings composition done during the year. 03 Marks

(d) Two selected works of paintings done during the year. 02 Marks

These selected works prepared during the course by the candidates and certified the school authorities as the work, done in the school will be placed before examiners for assessment.

Note :

1. The candidates should be given one hour-break after first three hours.
2. The time-table to be so framed a to allow the students to work continuously for minimum of two periods at a stretch.

SUBJECT : BIOLOGY

Recommended Books : NCERT

TERM-I						
Chapters	**Topics**	**Sub Topics of the Chapter**	**Value**	**Learning Outcomes**	**Proposed Activities (To be done in school)**	**Proposed Activities (To be done home for revision)**
Ch-1 The Living World	Categorization of living organisms.	Taxa Kingdom to phylum	Students will practice the skills of scientific inequiry, including asking questions, conducting investigations, and analyzing data.	Students will be able to : 1. Defining and common properties of the living. 2. Evaluate the importance of Grouping organisms into taxa.		
Ch-2 Biological classification	Artificial system of Classification Natural system of classification	2. Kingdom classification and its drawbacks. 5. Kingdom classification Various kingdoms under the 5 kingdom classification.	Students will be able to understand the variations amongst organisms on the basis of their characteristics. Objectivity : Students will uncover truths about the natural world by eliminating false beliefs.		To study the preserved and live specimens of different living organisms.	Observe common insects, birds, lizard and note down their common characters.

Ch-3 Plant Kingdom	Algae, bryophytes, pteridophytes, gymno sperms, angiosperm	Types of all 5 groups of plants. Morphology, economic importance and modes of reproduction.		1. Learning about Red, brown and green algae, their habits and habitats. 2. Knowing about bryophytes, and pteridophytes, etheir evolutionary importance and economic importance. 3. to differentiate between gymnosperms and angiosperms	1. Observing and commenting on the identifying features of different plant specimens. 2. Study flowers of different families.	1. Observe and Note down characteristic features of common plant available insist and around home. 2. Collective five seeds of monocots and dicots. 3. Collect any three flowers and study the parts.
Ch-4 Animal Kingdom	Different Levels of Organization. Invertebrates. Vertebrates	Porifera Cnidaria Ctenophora Platyhelminth Aschelminthes Annelida Arthropoda Mollusca Class : Pisces Amphibia Reptilia Aves Mammals	Objectivity And Openness	1. Understand the structure, habits and habitats of different groups of animals.	1. To study Different kinds of animals with the help of flash cards.	1. Observe common animals around you, divide them into groups and make comparative tables.
JULY						
Ch-5 Morphology of flowering plants	Structure of a plant, Features of a Root Stem Leaf	Identifying features of root, stem and leaf. Underground	Critical thinking : The student will be able to critically observe the	Learning how to identify whether a given plant or its part is a root, stem or a leaf.	1. To observe and note down the identifying features of different plant specimens.	1. Observe the following : A. carrot, potato, radish Leaves of

	Modifications of these.	stems. Aerial roots modified for : Storage, propagation, support etc.	plants we use and other plants and find out about them.	Knowledge about the functions of different plant parts.		cirtrus at home, write down whether they are root/stem on the basis identifying features.
Ch-6 Anatomy of flowering plants	Types of tissues Tissue systems Internal structure of a root, stem and leaf.	Meristematic and permanent tissue. Tissue system in the different plant parts. Tissue system in monocot and dicot root, stem and leaf.	Understanding the structural adaptations of plants w.r.t. diverse environmental conditions.	Students will be able to distinguish between monocots, dicots and gymnospherms.	To observe permanent slides of the Transverse section of, monocot and dicot root, stem and leaf. Cut T.S. of Dicot Stem to make a temporary slide.	
Ch-7 Structural organization in animals.	Anatomy of Frog	Habitat, Digestion Nervous Reproduction of Frog	Understanding the internal structure and different system of Frog body.	Students will be able to learn and understand the anatomy of Frog	Observing the following with the help of permanent slides.	
Ch-8 Cell : The Unit of Life	Cell Theory Prokaryotic and Eukaryotic cell Structure and function of different organelles.	Differences in pro and eukaryotic cells. Cell organelles : Structure and Functions.	Imparts knowledge about the basic unit of life, how it functions and sustains life.	Key learning outcomes are : Familiarity with the structure of the basic unit of life and its components *i.e.* nucleus, plasma membrane, mitochondria, ER, golgi bodies, plastids.	Observing cells of plants under low power of the microscope. Note down the characters.	

Ch-9 Biomolecules	Macromolecules; Proteins, fats, carbohydrate, DNA/ Nucleotides Enzymes	Chemical composition and structures of the biomolecules. Structure and functioning of enzymes.	Understanding the functions that regulate growth and development of human body.	Biological macromolecules like cellulose, proteins and DNA are polymers made from monomers with distinct chemical properties.	1. Test for the presence of : starch and proteins in different food items.	1. Test for the presence of starch in potatoes.
Ch-10 Cell Cycle and Cell Division	Cell cycle Mitosis Meiosis	Interphase and cell division. Stages of mitosis and meiosis. Significance of cell division.	Objectivity : Students will be able to look at life and systems running it in an objective manner.	Knowing that mitosis is for growth and repair and meiosis is for gamete formation and understnading the reason behind it.	Observing permanent slides of different stages of mitosis and meiosis under the microscope and identifying followed by diagram.	
Ch-13 Photosyn-thesis	History and experiments related to discovery of the process of photosynthesis. Chemical pathway of photosynthesis. Factors affecting photosynthesis.	Experiments on : sunlight and CO_2 are essential for photosynthesis Calvin cycle C4 cycle C3 and C4 plants.	The learner will be open to different view points related to photosyn-thesis and analyze it critically.	Understanding how plants take up CO_2 and H_2O and use them for making food using the sun's energy. Learning how plants cope with adverse circumstances to perform photosynthesis Effectively.	Observing an experiments 1 setup to show that light is esential for photosynthesis.	Note down effects on the growth of plants growing in sunlight and in shade.
Ch-14 Respiration in plants	Do plants breathe ? Aerobic and	Glycolysis Krebs cycle Electron	Compassion and understanding	Understanding and learning the chemical	Experiment to show that CO_2 is released	

	anaerobic respiration in plants.	Transport system The respiratory balance sheet.	for life. Accountability	pathways occurring in plants during aerobic and anaerobic respiration. How is energy produced and stored ?	during respiration.	
Ch-15 Plant growth and development	Growth in Plants Role of hormones in growth	Plant growth inhibitors Plant growth promoters Examples and individual roles.	Objectivity : Learners will be able to study the role of phytohormones in plant growth in an objevtive manner.	Knowing the roles of auxins, gibberllins, cytokinin, ABA, ethylene		Observe the change in growth patter in plants on hormonal application.
TERM-II						
Ch-17 Breathing and exchange of gases	Human respiratory system Mechanism of breathing. Exchange of gases in human body.	Parts of the respiratory system. Transport of gases in the body. Respiratory volumes.	Curiosity : The interest in the working of the human body will lead to enquiry, leading to learning.	Students will know how inspiration and expiration occur. How O_2 and CO_2 are exchanged between alveoli and blood.	Observe and comment on the permanent slide of blood smear.	Make a flowchart to show the exchange of gases between alveoli and blood and between blood and tissue.
Ch-18 Body Fluids and Circulation	Blood : The fluid connective tissue. Structure and functioning of Heart.	Components of blood. Flow of blood through the heart. Cardiac cycle, Disorders.	Enquiry : Students will know about the transport in the body and make enquiries regarding it.	Learn how heart works as a pumping organ and how blood plays various important roles in the body.		Make a table note down the correlation between the amount of water drunk and urine produced at different time of the day.

Ch-19 Excretory products and their elimination	What is excretion ? Excretory system in humans.	Parts of the excretory system. Process of urine formation. Disorders related to the excretory system.	Open mindedness : Students will be willing to search actively for how our body gets rid of the wastes.	Know what are the wastes produced in our body, how the body removes them, disorders of the excretory system.	Study different types of Bones from the model, the skeleton	Observe movements of joints and identify them.
Ch-20 Locomotion and movement	Muscle system Skeletal System	Types of muscles, mechanism of muscle contraction Different bones, axial skeleton, Joints	Evidence based learning	How bones and muscles work in coordination to make movements in the body possible.		Different examples of reflex, action and draw a diagram showing reflex arc
Ch-21 Neural control and coordination	Types of nervous system Nerve impulse conduction	CNS PNS ANS Role of ions in nerve impulse conduction.	Intellectual honesty Honesty in acquiring, analysis and transmission of ideas	Learn and analyse : Parts of the nervous system : Brain, spinal cord, nerves. Nerve impulse conduction. Reflex action.		Make a chart depict thelocatoin of different glass in the human body and write the functions of each hormone.
Ch-22 Chemical Coordination	What is chemical coordination Hormones involved in chemical coordination and their role.	Types of hormones on the basis of their chemical composition. Intracelluar and extracellular hormone action	Enquiry : Students will be required to obtain knowledge and understanding of the role of hormones.	The seeker will know the location of the glands and the hormones produced by them. Role played by different hormones.		

MAY TERM EXAM

1. The Living World
2. Biological Classification
3. Plant Kingdom
4. Animal Kingdom

SEPTEMBER EXAM

1. Morphology of flowering plants
2. Anatomy of Flowring Plants
3. Structural Organization in Animals
4. Cell – The Unit of Life
5. Biomolecules
6. Cell Cycle and Cell Division
7. Photosynthesis in Higher Plants
8. Respiration in Plants
9. Plant Growth and Development

UNIT-1 (1-4 Chapter)

UNIT-2

Breathing and Exchange of Gases

Body Fluids and Circulation

Excretory Products and their elimination

Location and Movement

Neural Control and Coordination

FINAL TERM – FULL SYLLABUS

PRACTICAL

Time : 03 Hours **Max. Marks : 30**

Evaluation Scheme		**Marks**
One Major Experiment Part A (Experiment No. 1, 3, 7, 8)		5 Marks
One Minor Experiment Part A (Experiment No. 6, 9, 10, 11, 12, 13)		4 Marks
Slide Preparation Part A (Experiment No. 2, 4, 5)		5 Marks
Spotting Part B		7 Marks
Practical Record + Viva Voce	(Credit to the student's work over the academic session may be given)	4 Marks
Project Record + Viva Voce		5 Marks
Total		30 Marks

A : List of Experiments

1. Study and describe locally available common flowering plants, from family Solanaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound).
2. Preparation and study of T.S. of dicot and monocot roots and stems (primary).
3. Study of osmosis by potato osmometer.
4. Study of plasmolysis in epidermal peels (*e.g.* Rhoeo/lily leaves or flashy scale leaves of onion bulb).
5. Study of distribution of stomata on the upper and lower surfaces of leaves.
6. Comparative study of the rates of transpiration in the upper and lower surfaces of leaves.
7. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.
8. Separation of plant pigments through paper chromatography.
9. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.
10. Test of presence of urea in urine.
11. Test for presence of sugar in urine.
12. Test for presence of albumin in urine.
13. Test for presence of bile salts in urine.

B. Study and Observe the following (spotting) :

1. Parts of a compound microscope.
2. Specimens/slides/models and identification with reasons - Bacteria, *Oscillatoria, Spirogyra, Rhizopus,* mushroom, yeast, liverwart, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen.
3. Virtual specimens/slides/models and identifying features of - *Amoeba, Hydra,* liver fluke, *Ascaris*, leech, earthworm, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.
4. Mitosis is onion root tip cells and animals cells (grasshopper) from permanent slides.
5. Different types of inflorescence (cymose and racemose).
6. Human skeleton and different types of joints with the help of virtual images/models only.

SUBJECT : PHYSICS (042)

Recommended Books :

1. **Physics, Class XI, Part-I and II, Published by NCERT**
2. **Laboratory Manual of Physics for Class XI published by NCERT**
3. **The list of other related books and manuals brought out by NCERT (consider multimedia also).**

Chapters	Topics and Subtopic	Value	Learning Outcomes	Proposed Activities / Activity in the Class
Ch-1 Units and Measurements	Need for measurement : Units of measurement; systems of units; SI units, fundamental and derived units, Significant figures. Dimensions of physical quantities, dimensional analysis and its applications.	Rational thinking	Students will be able to use International System of units (SI Units), symbols, nomenclature of physical quantities and formulations, conventions	To make a paper scale of given least count, *e.g.*, 0.2 cm, 0.5 cm.
Ch-2 Motion in a Straight Line	Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity-time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).	Scientific aptitude	Enable students to differentiates between certain physical quantities; such as, between distance and displacement; speed and velocity; rectilinear and curvilinear motions; average, relative, and instantaneous velocity and speed	To study uniform and non-uniform motion and plot its graph by taking any example from day to day life.
Ch-3 Motion in a Plane	Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular	Human Welfare and rational thinking	To enable students to understand the concepts of physics in daily life with reasoning while decision-making and solving problems; such as projectile motion and rain and umbrella problem	To study the variation in range of a projectile with angle of projection.

	componnets, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration-projectile motion, uniform circular motion.			
Ch-4 Laws of Motion	Intuitive concept of force, inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion : Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road)	Freedom from myth and superstitious beliefs while taking decisions	To enable students to understand processes, phenomena and laws with the understanding of the relationship between nature and matter on scientific basis; such as, need of accuracy, precision, errors and uncertainties in measurement; fundamental forces in nature – gravitational, electromagnetic, strong and weak nuclear forces; and unification of forces; various laws such as laws of motion, friction, lubrication, conservation laws, change in velocity due to acceleration, acceleration due to gravity of earth, why a seasoned cricketer draws in her/his hands during a catch	1. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
Ch-5 Work, Energy and Power	Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces : non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	Values of honesty and objectivity	Students will be able to derive formulae and equations, such as, dimensional formulae and dimensional equation; potential energy of a spring, and proof of work-energy theorem for a variable force.	To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).

Ch-7 Gravitation	Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite.	Scientific attitude and freedom from myth	Students will be able to take initiative to learn about the newer researchers, discoveries and inventions in physics; such as, about space programme of India and other countries.	To find the value of acceleration due to gravity using simple pendulum
Ch-6 System of Particles and Rotational Motion	Centre of mass of a two-particle system, momentum conservation and Centre of mass motion, Centre of mass of a rigid body; center of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).	Integrity and transparency	To enable students to plan and conduct investigation experiments to arrive at and verify the facts, principles, phenomena, relationship between physical quantities, or to seek answers to queries on their own; such as effect on the angular speed of earth with melting of glaciers and concept of center of mass	To determine mass of a given body using a meter scale by principle of moments
Ch-8 Mechanical Properties of Solids	Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy	Critical thinking and logical reasoning.	To enable students to recognize different processes used in Physics-related industrial and technological applications; such as, knowledge of strength of materials used for structural design of columns, beams and supports while designing a building;	To study the elasticity of rubber and steel

Ch-9 Mechanical Properties of Fluids	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stoke's law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.	Teamwork and innovation	To enable students to recognize different processes used in Physics-related industrial and technological applications; such as hydraulic machines for lifting heavy objects.	To study capillarity action using a capillary tube of very fine bore.
Ch-10 Thermal Properties of Matter	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law.	Collaborative mindset and desire to learn	Students will be able to realize and appreciates the interface of Physics with other disciplines; such as; mechanism of conversion of heat into work for different heat engines	To study the concept of conduction, convection and radiation
Ch-11 Thermodynamics	Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics;	Passion for the mission and vision	Students will be able to realize and appreciates the interface of Physics with other disciplines; such as; mechanism of conversion of heat into work for different heat engines	

	gaseous state of matter, change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes			
Ch-12 Kinetic Theory	Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number	Continuous improve-ment and consistency		To show that particles of matter are in continuous random motion
Ch-13 Oscillations	Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M.) and its equations of motion; phase; oscillations of a loaded spring-restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.	Teamwork and passion for winning	Students will analyze and interprets data, graphs, and figures, and draws conclusion; such as, motion in a plane; analysis of the function of time to identify periodic and non-periodic motion;	To study dissipation of energy of a simple pendulum by plotting a graph between square amplitude and time.
Ch-14 Waves	Wave motion : Transverse and longitudinal waves, speed of traveling wave, displacement relation for	Gratitude and problem solver.	Students will recognise different processes used in Physics-related industrial and	To show that sound needs a medium to travel.

	a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.		technological applications; such as knowledge about beats for tuning musical instruments.	

SYLLABUS FOR SESSION 2024-25

CLASS–XI

SUBJECT : BUSINESS STUDIES (054)

Time : 03 Hours **Theory : 80 Marks; Project : 20 Marks**

Units		Periods	Marks
Part A	**Foundations of Business**		
1	Nature and Purpose of Business	18	16
2	Forms of Business Organisations	24	
3	Public, Private and Global Enterprises	18	14
4	Business Services	18	
5	Emerging Modes of Business	10	10
6	Social Responsibility of Business and Business Ethics	12	
	Total	**100**	**40**
Part B	**Finance and Trade**		
7	Sources of Business Finance	30	20
8	Small Business	16	
9	Internal Trade	30	20
10	International Business	14	
	Total	**90**	**40**
	Project Work (One)	**30**	**20**

SUBJECT : BUSINESS STUDIES

TERM-I

Topic and Subtopics	Learning Outcomes	Life Skills	Activities, Project, Assessment Tool
Unit-1 : Evolution and Fundamentals of Business		Self Awareness Critical Thinking	Case Studies, Mind Map, Pictorial MCQ, Class Test, Project Work
Content	**After going through this unit, the student/learner would be able to :**		
History of Trade and Commerce in India : Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities : Merchant Corporations, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy	• To acquaint the History of Trade and Commerce in India		
Business – meaning and characteristics	• Understand the meaning of business with special reference to economic and non-economic activities. • Discuss the characteristics of business.		
Business, profession and employment – Concept	• Understand the concept of business, profession and employment. • Differentiate between business, profession and employment.		
Objectives of business	• Appreciate the economic and social objectives of business. • Examine the role of profit in business.		
Classification of business activities – Industry and Commerce	• Understand the broad categories of business activities- industry and commerce.		
Industry-types : primary, secondary, tertiary Meaning and subgroups	• Describe the various types of industries.		

Commerce-trade : (types- internal, external; wholesale and retail) and auxiliaries to trade; (banking, insurance, transportation, warehousing, communication, and advertising) – meaning	• Discuss the meaning of commerce, trade and auxiliaries to trade. • Discuss the meaning of different types of trade and auxiliaries to trade. • Examine the role of commerce-trade and auxiliaries to trade.		
Business risk-Concept	• Understand the concept of risk as a special characteristic of business. • Examine the nature and causes of business risk.		
Unit-2 : Forms of Business Organization			
Sole Proprietorship-Concept, merits and limitations	• List the different forms of business organizations and understand their meaning. • Identify and explain the concept, merits and limitations of Sole Proprietorship.		
Partnership–Concept, types, merits and limitation of partnership, registration of a partnership firm, partnership deed. Types of partners	• Identify and explain the concept, merits and limitations of a Partnership firm. • Understand the types of partnership on the basis of duration and on the basis of liability. • State the need for registration of a partnership firm. • Discuss types of partners–active, sleeping, secret, nominal and partner by estoppel.	Self Awareness, Decision Making, Problem Solving	Case Studies, Mind Map, Pictorial MCQ, Crossword Puzzles, Class Test
Hindu Undivided Family Business : Concept	• Understand the concept of Hindu Undivided Family Business.		
Cooperative Societies–Concept, merits, and limitations	• Identify and explain the concept, merits and limitations of Cooperative Societies. • Understand the concept of consumers, producers, marketing, farmers, credit and housing co-operatives.		
Company-Concept, merits and limitations; Types : Private, Public and One	• Identify and explain the concept, merits and limitations of private and public companies.		

Person Company – Concept	• Understand the meaning of one person company. • Distinguish between a private company and a public company.		
Formation of company - stages, important documents to be used in formation of a company	• Highlight the stages in the formation of a company. • Discuss the important documents used in the various stages in the formation of a company.		
Choice of form of business organization	• Distinguish between the various forms of business organizations. • Explain the factors that influence the choice of a suitable form of business organization.		
Unit-3 : Public, Private and Global Enterprises			
Public sector and private sector enterprises – Concept	• Develop an understanding of Public sector and private sector enterprises	Self Awareness Decision Making	Case Studies, Mind Map, Pictorial MCQ, Class Test
Forms of public sector enterprises : Departmental Undertakings, Statutory Corporations and Government Company	• Identify and explain the features, merits and limitations of different forms of public sector enterprises		
Global Enterprises – Feature Joint Venture Public private partnership – concept	• Develop an understanding of global enterprises, public private partnership by studying their meaning and features.		
Unit-4 : Business Services			
Business services – meaning and types. Banking : Types of bank accounts – savings, current, recurring, fixed deposit and multiple option deposit account	• Understand the meaning and types of business services. • Discuss the meaning and types of Business service-Banking • Develop an understanding of difference types of bank account.	Decision Making Self Awareness Problem Solving Rational Thinking	Case Studies, Mind Map, Class Test, Crossword Puzzles
Banking services with particular reference to Bank Draft, Bank Overdraft, Cash credit, E-Banking : meaning, types of digital payments	• Develop an understanding of the different services provided by banks		

Insurance – Principles. Types – life, health, fire and marine insurance – concept	• Recall the concept of insurance • Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of Insurance • Discuss the meaning of different types of insurance–life, health, fire, marine insurance.		
Postal Service – Mail, Registered Post, Parcel, Speed Post, Courier-meaning	• Understand the utility of different telecom services		
Unit-5 : Emerging Modes of Business			
E-business : concept, scope and benefits	• Give the meaning of e-business. • Discuss the scope of e-business. • Appreciate the benefits of e-business • Distinguish e-business from traditional business.	Decision Making Technology Skills	Case Studies, Mind Map, Class Test, Pictorial MCQ
Unit-6 : Social Responsibility of Business and Business Ethics			
Concept of social responsibility	• State the concept of social responsibility.	Self Awareness Interpersonal Communications Empathy	Case Studies, Mind Map, Class Test, Pictorial MCQ
Case of social responsibility	• Examine the case for social responsibility.		
Responsibility towards owners, investors, consumers, employees, government and community	• Identify the social responsibility towards different interest groups.		
Role of business in environment protection	• Appreciate the role of business in environment protection.		
Business Ethics - Concept and Elements	• State the concept of business ethics. • Describe the elements of business ethics.		

TERM-II			
Part B : Finance and Trade **Unit-7 : Sources of Business Finance**			
Concept of business finance	• State the meaning, nature and importance of business finance.	Financial Literacy Decision Making Self Awareness	Case Studies, Mind Map, Crossword Puzzle, Class Test
Owners funds- equity shares, preferences share, retained earnings	• Classify the various sources of funds into owners' funds. • State the meaning of owners' funds.		
Borrowed funds : debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD)	• State the meaning of borrowed funds. • Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks, Trade credit and inter corporate deposits. • Distinguish between owner's funds and borrowed funds.		
Unit-8 : Small Business and Enterprises			
Entrepreneurship Development (ED) : Concept, Characteristics and Need. Process of Entrepreneurship Development : Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship	• Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights	Self Awareness Decision Making Rational Thinking	Case Studies, Mind Map, Class Test
Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act)	• Understand the meaning of small business		
Role of small business in India with special reference to rural areas	• Discuss the role of small business in India		
Government schemes and agencies for small scale industries : National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas	• Appreciate the various Government schemes and agencies for development of small scale industries. NSIC and DIC with special reference to rural, backward areas.		

Unit-9 : Internal Trade		Self Awareness Critical Thinking Decision Making	Case Studies, Mind Map, Pictorial MCQ, Project Work
Internal trade - meaning and types, services rendered by a wholesaler and a retailer	• State the meaning and types of internal trade. • Appreciate the services of wholesalers and retailers.		
Types of retail-trade-ltinerant and small scale fixed shops retailers	• Explain the different types of retail trade.		
Large scale retailers-Departmental stores, chain stores – concept	• Highlight the distinctive features of departmental stores, chain stores and mail order business.		
GST (Goods and Services Tax) : Concept and key-features	• Understand the concept of GST		
Unit-10 : International Trade		Creativity Decision Making Problem Solving	Case Studies, Mind Map, Pictorial MCQ, Practice Test, Project Work
International trade : concept and benefits	• Understand the concept of international trade. • Describe the scope of international trade to the nation and business firms.		
Export trade – Meaning and procedure	• State the meaning and objectives of export trade. • Explain the important steps involved in executing export trade.		
Import Trade – Meaning and procedure	• State the meaning and objectives of import trade. • Discuss the important steps involved in executing import trade.		
Documents involved in International Trade; Indent, letter of credit, shipping order, shipping bills, mate's receipt (DA/DP)	• Develop an understanding of the various documents used in international trade. • Identify the specimen of the various documents used in international trade. • Highlight the importance of the documents needed in connection with international trade transactions.		
World Trade Organization (WTO) meaning and objectives	• State the meaning of World Trade Organization. • Discuss the objectives of World Trade Organization in promoting international trade.		

SUBJECT : TAXATION

PART–A : EMPLOYABILITY SKILLS			
Topics	**Learning Outcomes**	**Proposed Activity**	**Values**
I. Communication Skills	• Demonstrate knowledge of various methods of communication • Identify specific communication styles • Demonstrate basic writing skills	Class discussion	Creative Writing
II. Self Management Skills	• Demonstrate impressive appearance and grooming • Demonstrate team work skills • Apply time management strategies and techniques	Group discussion	Creative Writing
III. Information and Communication Technology	• Create a document on Word Processor • Edit, Save and Print a document in Word Processor		
IV. Entrepreneurial Skills	• Describe the significance of entrepreneurial • Demonstrate the knowledge of attitudinal changes required to become an entrepreneur	Class discussion Group discussion	Understanding Analytical thinking
V. Green Skills	• Describe importance of main Sector of green economy • Describe the major green sectors / Areas and the role of various stakeholders in green economy	Class discussion Group discussion	Creative thinking
PART–B : SUBJECT SPECIFIC SKILLS			
Introduction to Income tax and important definitions	• List out the various components of Income tax law • Understand the history of transaction • Understand the various terms	Class discussion Interactive lecture	Understanding
Residential Status, incidence of tax liability and exempted Incomes	• Find out the residential status • Determine the scope of total Income • Various Exemptions available to tax payers	Class discussion and Interactive lecture	Understanding

Heads of Incomes : 3(i) Income from Salary 3(ii) Income from House Property 3(iii) Income from Business and Profession 3(iv) Income from other sources	• Explain the meaning of term salary, items included under the head, allowance, perquisites. • Meaning of House Property, Deemed ownership, Deduction under Sec 24, Co-ownership. • Incomes chargeable under the head Business and Profession, Calculating Net Income Taxable under the head Identify Expenses allowed and disallowed. • Basis of charging an Income under this head, Meaning of dividend, Provisions regarding gifts, tax treatment of amount received from Life Insurance Policy, Deductions available and not available	Interactive Lectures Lecture method	Understanding Analytical ability and Application of Concept

PART–C : PRACTICAL WORK (40 marks)

Project	10 marks
Viva	05 marks
Practical file	10 marks
Demonstration of Skill	
Competency via Lab Activity	15 marks

SYLLABUS FOR SESSION 2024-25

CLASS–XI

SUBJECT : YOGA

Unit No. & Name	Topics covered Per unit	Learning Objectives & Outcomes	Values Inculcated
UNIT-1 **Introduction to Yoga & Yogic Practices**	• Yoga Etymology, definition, aims, objectives & misconception • Yoga-Origin, history & development • Rules & regulations to be followed by Yoga Practitioners. • Introduction to major schools of Yoga (Janan Yoga, Bhakti Yoga, Karma, Patanjali)	• Yoga can help to stretch muscles and improve posture. Low impact exercises appropriate for age and designed to strengthen lower back, abdomen & core strength. • Know how of start of Yoga, its history, rules & regulations and practice with precautions & injury-free workout.	• Hardwork, discipline & committment • Optimism, Enthuism & Happiness
UNIT-II **Introduction to Yoga – Texts I**	• Introduction and study of Patanjali Yog sutra including memorization of selected sutra. • Introduction and study of Bhagwat Gita including memorization of selected shlokas • Introuction of Hata pradpisha • Introduction and study of Gheranda Samhita	• Combining yogic kriyas with spiritual aspect, developing neuromuscular co-ordination.	• Self-realisation and spiritualism • Self disciplined and truthfulness
UNIT-III **Yoga for Health Promotion-1**	• Brief introduction to Human body. • Role of yoga for Heatlh promotion. • Yogic attitude and practice. • Holistic approach of yoga towards health and disease. • Diet and its relevance, and importance in Yoga sadhna.	• To encourage students towards healthy, lifestyle • Consciousness, morality • To possess emotional stability • Increase physical strength and flexibility	• Increased confidence • Beneficial for body & mind • Improved breathing • Better flexibility

	• Dincharya and Ritucharya with respect to yogic lifestyle.		
Unit-1 Unit-2 Unit-3 Unit-4 Unit-5	Communication Skills Self Management Skills Information and Communication Technology Skills Entrepreneurial Skill Green Skills	To make the students learn the communication. To aware students about self awareness. Introduction to ICT To learn the significance of entrepreneur. To learn the importance of Green economy features that provide Green environment.	Students learn about verbal, non-verbal, communication Students learn about personal Hygiene Team Work To learn students about MS Word and Document To learn students about the entrepreneur. Describe the importance of Green Sector promoting a more eco-conscious and sustainable future.

PRACTICAL (50 marks)

1. Project – 10 Marks

   Students will be assigned.

2. VIVA – 05 Marks

   Base on project, teacher may ask verbal question related to project, if no project assigned to students. Viva may be based on the questions of practical nature from the field.

3. Practical File – 15 Marks

   Students to make different asana there advantages and contraindications of asana.

4. Demonstration of Skills – 20 Marks

SUBJECT : ECONOMICS

TERM-I (APRIL TO SEPTEMBER)				
Unit & Chapter	**Topics**	**Learning Outcomes**	**Values**	**Activities**
UNIT-3 Measures of Central Tendency	Arithmetic Mean Median Mode	Methods of Calculating Mean in different Series Methods of Calculating Median for various kinds of data Methods of calculating Mode for various kinds of data	Transferable skills like numeracy problem-solving is developed.	Black-board activity
Micro Economics UNIT-4 Introduction	Simple Economy Central Problems of an Economy Positive & Normative Economics PPC	Describe the role & problems of an economy Describe the movement along a PPC and shift in Economy PPC	Develops problem solving skills to make good decisions.	Case Studies
UNIT-5 Consumer Equilibrium	Cardinal Utility, Law of DMU Consumer Equilibrium Ordinal utility, Budget set and Budget Line, Consumer Equilibrium through IC	Role and importance of marginal utility and consumer equilibrium with help of utility approach. Rationalize the existence of ordinal utility, Analyses the change in Budget Line and Consumer Equilibrium through Indifference Curve.	Develops analytical skills Critical understanding	Real life examples Giving a situation and ask students views related to situation.
Theory of Demand	Factors affect demand, Types of goods, Movements and shift in Demand Curve	Analyse the theory of demand, how it is used to illustrate movement, extension, contraction, shift in demand curve.	Develops critical understanding to various issue of Economy	Latest news from newspaper regarding demand and price of goods.
Elasticity of Demand	Percentage, Expenditure method, Factors affecting Ped.	Illustrate decision making and problem solving skills related to elasticity of demand.	Develops appropriate Economic Interpretation	Board activity

Statistics **UNIT-1** Introduction	Statistics meaning, Features, Importance, Limitation of statistics in Economics	Role of statistics in Economics, Mention how statistics is used in subject of Economics	Knowledge of Economic Concepts	Group Discussion
UNIT-2 Collection of Data	Primary & Secondary Data Methods of Collecting Primary data	Meaning & purpose of data collection compare Primary and Secondary data with an example	Improving knowledge and understanding of economic skills.	
Census and Sample Methods of Collection of Data	Difference between Census & Sample Method Different Methods of Sampling	Articulates how surveys can be used for data Diff. between Random and non-Random Sampling based on chances of getting represented	Develop research skills	Group learning
TERM-II (OCTOBER TO FEBRUARY)				
Micro Economics **UNIT-6** Production function	Short run & long run, TP, AP, MP, Law of Variable proportion	Models how a production function gives max quantity of output can be produced for given labour & capital Explain LVP, formulae for AP & MP from TP	Helps in developing theoretical economic framework	Exhibiting real life examples
Cost	Short run cost, AC, MC, Relationship between short run Cost Curves solved Practicals	Numerically derives all the costs from TFC and TVC Illustrates the shapes of short run cost curves	Problem Solving Skills	Case Studies
Revenue	Concepts of Revenue, Relationship between Revenue Concepts	Explain Total Revenue (TR), Average Revenue (AR) and Marginal Revenue (MR)	Forcast economic activity	Diagrams Practice on Board

Producer's Equilibrium	Firms profit in terms of MR - MC Approach	Construct the conditions required for profit maximisation of a firm under perfect competition market	Develops decision making skills	
Supply and Elasticity of Supply	Factors affect supply, Law of supply, Movement & shift in supply curve, factors affect Pes and numericals related to Es.	Derive the market supply curve from individual supply curve, Rationalise the shift in supply curve, Diff. methods of determining Pes.	Develops logical Reasoning in analysis various issues related to economy.	Debate
Forms of Market	Meaning & features of Perfect Competition	Explain competitive markets and use diagram to show effect of large no. of firms on price, quantity.	Better understanding of economic events.	
Price Determination	Explain Market Equilibrium Effect of Change in Demand & Supply on Market Equilibrium Price Ceiling & Price floor	Define Equilibrium price and Equilibrium quantity Excess Supply and Excess Demand Illustrates Equilibrium for a perfectly competitive market, Role of price ceiling in necessary goods, role of price floor in case of agricultural goods.	Develops problem-solving skills and decision making skills related to Consumer Satisfaction	Case Studies Application based
Statistics UNIT-3 Correlation	Types of Correlation, Karl Pearson's & Spearman's Rank Coefficient Technique	Understand the usage of Karl Pearson's and Spearman's Rank Correlation to measure the relationship between variables.	Recognize the common sense among numbers in a Mathematical Problem solving.	Black Board activity
Index Numbers	Concept & Importance of Index No. Different methods of Calculating Index Nos.	Explain the methods of Constructing Index No. Simple & Weighted Index No., How Inflation is measured using different Index Nos. Relevance of using Index No.	Develops efficiency in numerical solving	

UNIT-2 Organisation of Data	Classification, Types, Frequency, Array, Diff. between univariate & bivariate Distribution	Points out different factors considered while tabulating the frequency distribution Analyse the difference between frequency graphs of equal and unequal class data distribution.	Improves scope and accuracy of Research	Class-test
Presentation of data	Textual and Tabular Presentation Diagrammatic Presentation Bar diagram and Pie diagram	Analyse and Interpret data using table understanding the parts of a table, drawback of textual presentation of data Presenting data using different types of bar diagram and pie diagram	Understanding economic reports Develops economic skills to access data	
Frequency diagram	Histogram Polygon and Ogive	Assesses the benefits of using histogram, Polygon and Ogive		Project Work
Arithmetic Line graph	Time series graph	Assessing the different types of Time Series Graph using one or more than one variable	Develops data Analysis strategies	

SUBJECT : ACCOUNTANCY

TERM-I (APRIL TO SEPTEMBER)				
Chapters	**Topics**	**Learning Objectives**	**Proposed Activities**	**Values**
1. Introduction to Accounting	1. Meaning and Definition of Accounting 2. Characteristics, objectives and functions of Accounting 3. Advantages and Limitations of Accounting 4. Role of Accounting in Business 5. Accounting information & it's types. Users of Accounting information	After going through this chapter students will be able to describe meaning, significance, objectives, advantages and limitations of Accounting. Identify various users of Accounting information.	Quiz	Remembering understanding
2. Basic Accounting Terms	Entity, Business Transaction, Capital Drawing, Liabilities, Assets. Expenditure, Expenes, Revenue, Incorrect, Profit, Gain, Loss, Purchase, Sales Goods, Stock, Debtors, Creditor, Voucher, Discount (Trade Discount & Cash Discount)	Students will be able to explain the various terms used in Accounting.	Role playing	Remembering
3. Accounting Procedures Rules of Debit and Credit	Meaning of Debit & Credit. Rules of Debit and Credit. Classification of Accounts.	Students will be able to understand the effect of a transaction on assets, liabilities, capital, revenue & expenses.	Role playing and Quiz	Applying
4. Origin of Transactions – Source Documents and Preparation of Vouchers	Meaning of Source Documents and Vouchers. Types of Vouchers.	Students will be able to understand the source documents and accounting vouchers.	Group Discussion	Remembering

5. Journal	Meaning and Characteristics of Journal. Simple and Compound Journal entries. Discount and Rebate. Opening Jounral entries.	Develop the skill of recording various transactions in journal.	Quiz	Understanding Applying Creativity
6. Ledger	Meaning and features of Ledger Format and Balancing of Ledger Accounts. Method of Posting. Difference between Journal & Ledger.	Develop the skill of Posting various entries from Books of original entry to Ledger.	Role Playing	Analysing
7. Special Purpose Book I – Cash Book	Meaning and Classification of Subsidiary Books. Meaning and features of Cash Book. Types of Cash Book – Simple Cash Book, Two Column Cash Book. Petty Cash Book	Students will understand the Purpose of maintaining Cash Book and develop the skill of preparing Cash Book.	Quiz	Creative thinking
8. Special Purpose Book II – Other Books	Purchase Book, Sales Book, Purchase Return Book and Sales Return Book, Journal Proper.	Students will understand the method of recording non-cash transactions in different subsidiary Books.	Case Study	Analytical thinking
9. Accounting of Goods and Services Tax (GST)	Meaning of GST, Advantages of GST. Characteristics of GST. Categories of GST. Accounting entries of GST.	Students will understand method of calculating GST and recording of GST in Journal & Subsidiary Books.	Quiz	Understanding
10. Bank Reconciliation Statement	Meaning and Need of Bank Reconciliation Statement. Reasons of Difference between Cash Book and Bank Statement balances. Preparation of Bank Reconciliation Statement.	Develop understanding of preparing Bank Reconciliation Statement.	Case Study	Applying analytical thinking Problem Solving
11. Trial Balance	Meaning, Objectives of Trial Balance Preparation of Trial Balance with Balance Method only.	Student will undertand the need and method of Preparing Trial Balance.	Vocabulary Game	Understanding

12. Depre-ciation	Meaning, Features, Need, Causes and factors affecting Depreciation Depletion and Amortisation. Methods of Depreciation – Straight Line Method, Written down Value method Provision for Depreciation and Asset Disposal Acocunt Difference between SLM and WDV, advantages of SLM and WDV.	Explain the necessity of providing depreciation and develop the skill of using different methods for computing depreciation. Students will learn to prepare provision for Depreciation Account and Asset Disposal Account.	Quiz	Problem Solving Creative thinking
13. Provisions and Reserves	Meaning of Provisions, Reserve Types of Reserve – Revenue, Capital, Specific and Secret Reserve, Difference between Provision and Reserve	Students will understand the need of creating reserves and provisions.	Group Discussion	Understanding
14. Accounts for Incomplete Records – Single Entry System	Meaning, features, advantages and limitations of Single entry system, Ascertainment of Profits by Statement of Affairs method. Difference between Double entry and Single entry system.	Students will develop the understanding to calculate Profit or Loss in case of incomplete records.	Case Study	Understanding, Problem Solving
TERM-II				
1. Theory Base of Accounting, Accounting Standards and Indian Accounting Standards (Ind-AS)	Fundamental Accounting Assumptions GAAP-Concept. Business Entity, Money measurement Going Concern, Accounting Period, Cost Concept, Dual aspect, Revenue Recognition, Matching Concept, Full disclosure, Consistency, Conservatism, Materiality, Objectivity Applicability of Accounting Standards and Ind-AS	Students will understand the meaning of various accounting assumption and their importance. Students will also be able to understand meaning, applicability objectives, advantages and limitations of Accounting Standards.	Case Study	Understanding applicability of learned concepts

2. Basis of Accounting	Cash Basis and Accrual Basis of Accounting and their difference	Students will understand various basis of Accounting	Quiz	Understanding, Remembering
3. Accounting Equation	Meaning of Accounting Equation and Preparation of Accounting equation	Students will understand the concept of Accounting equation.	Quiz	Understanding, Creative thinking
4. Rectification of Errors	Classification of errors, Rectification of errors, Preparation of Suspense Account. Errors which affects Trial Balance and Errors which do not affect Trial Balance.	Students will understand various types of errors and their rectification.	Quiz	Analytical thinking
5. Financial Statements of Sole Proprietorship	Meaning, Objectives and Importance of Financial Statements. Revenue & Capital Receipts and Expenditure Trading and Profit and Loss A/c Balance Sheet – need and grouping and Marshelling of Assets and Liabilities	Students will able to understand the meaning Financial statements. Students will learn to calculate gross profit. Operating profits and net profits Preparation of Trading and Profit and Loss account and Balance Sheet	Vocabulary Game	Understanding, Problem Solving
6. Adjustments in Preparation of Financial Statements	Adjustments of Closing Stock, Outstanding expenses, Prepaid expenses, accrued income, Income received in advance, bad debts, Provision for doubtful debts, Provision for Discount on debtors. Abnormal Loss, Depreciation, Goods taken for Personal use, interest on capital and manager's commission.	Develop the understanding and skill to adjustments of various items and their presentation in Balance Sheet.	Role Playing	Understanding Problem Solving