ANNUAL ACADEMIC PLAN2023-2024

BPC-I YEAR

JUNE

ENGLISH	BOTANY	ZOOLOGY	PHYSICS	CHEMISTRY
Poetry and Prose Introduction to syllabus (2 hrs) Model paper (2 hrs) **Extensive Reading** --- **Reading / Writing skills** Parts of speech (5 hrs) Comprehension (5 hrs) (unseen) **Communication skills** Silent letters (2 hrs) Odd sounds (3 hrs) Phrasal verbs(3 hrs)	Syllabus dictation and discussion of IPE question paper along with scheme of valuation-weightage of marks to each chapter **UNIT I – DIVERSITY IN THE LIVING WORLD** **CHAAPTER –1: The Living World** 1.1. What is living? 1.2. Diversity in the Living World 1.3. Taxonomic Categories 1.4. Taxonomic Aids **CHAPTER – 2: Biological Classification** 2.1 Kingdom Monera 2.2 Kingdom Protista 2.3 Kingdom Fungi 2.4 Kingdom Plantae 2.5 Kingdom Animalia 2.6 Six Kingdom	**Syllabus Dictation & Q.P. Model Explanation** **UNIT: I** **DIVERSITY OF LIVING WORLD** 1.1. What is Life? 1.2. Nature, Scope and meaning of Zoology 1.3. Branches of Zoology 1.4. Need for Classification: 1.5. Biological Classification 1.6. Levels and Hierarchy of Classification 1.7. Nomenclature 1.8. Species: Concept 1.9. Kingdom: ANIMALIA 1.10. BIODIVERSITY	**CHAPTER– I PHYSICAL WORLD** 1.1 What is Physics? 1.2 Scope and excitement of physics 1.3 Physics, technology and society 1.4 Fundamental force sinnature 1.5 Nature of physical laws **CHAPTER–II UNITS AND MEASUREMENTS** 2.1 Introduction 2.2 The International system of units 2.3 Measurement of length 2.4 Measurement of mass 2.5 Measurement of time 2.6 Accuracy, precision of instruments and errors in Measurement 2.7 Significant figures 2.8 Dimensions of Physical Quantities 2.9 Dimensional formulae	Syllabus dictation and discussion of IPE question paper – weightage of marks to each chapter **1. ATOMIC STRUCTURE** 1.1 Sub – atomic particles 1.2 Atomic models – Ruther ford's nuclear model of atom 1.3 Developments leading to the Bohr's model of atom 1.4 Bohr's model for hydrogen atom 1.5 Quantum mechanical considerations of subAtomic particles 1.6 Quantum mechanical model of Anatom -Important features of the quantum mechanical.Model of atom – orbitals and quantum numbers Shapes of atomic orbitals – energies of orbitals -Filling of orbitals in atom: Aufbau Principle,Pauli's exclusion principle and Hund's rule of Maximum multiplicity-electronic configurationsOf atoms – stability of completely filled and halfFilled sub shells

	Classification 2.7 Viruses, Viroids, Prions and Lichens **CHAPTER – 3: Science of Plants - Botany** 3.1 Origin 3.2 Development 3.3 Scope 3.4 Branches of Botany **CHAPTER – 4: Plant Kingdom** 4.1 Algae 4.2 Bryophytes 4.3 Pteridophytes 4.4 Gymnosperms 4.5 Angiosperms **PRACTICALS**: Introduction about practical work, compound microscope, morphology of representative types of bacteria, fungi & different plant groups. Record Work	**UNIT-II** **STRUCTURAL ORGANISATION IN ANIMALS** 2.0. INTRODUCTION ON TISSUES 2.1. LEVELS OF ORGANISATION 2.2. Importance of Symmetry 2.3. Coelome **PRACTICUM – Introduction, Understanding** **Operation of Microscopes**	and dimensional equations Dimensional analysis and its applications **Chapter-IIIMOTION IN A STRAIGHT LINE** 3.1 Introduction 3.2 Position, path length and displacement 3.3 Average velocity and average speed 3.4 Instantaneous velocity and speed Acceleration 3.6 Kinematic equations for uniformly accelerated motion 3.7 Relative velocity	**2. CLASSIFICATION OF ELEMENTS AND PERIODICITY OF PROPERTIES** 2.1 Need to classify elements 2.2 Genesis of periodic classification 2.3 Modern periodic law and the present form of the Periodic table 2.4 Nomenclature of elements with atomic number greater than 100 2.5 Electronic configuration of elements and the Periodic table. **PRACTICALS: I.**Acquinttance with Laboratory Equipment: 1.Bunsenburner, Spirit Lamp 2.Basic Laboratory equipment (Burette, pipette, conical flask, volumetric flask, measuring, cylinder, washbottle etc.,) 2.6 Electronic configurations and types of elements: s, p, d, f blocks 2.7 Periodic trends in properties of elements –Trends In physical properties –Periodic trends in chemical properties-Periodic trends and chemical reactivity

ASSIGNMENTS – I

NEET / EAPCET

JULY

Poetry and Prose

-Abraham Lincoln's Letter to His Son's Teacher (5 hrs)
-Commonwealth of Bees (4 hrs)

Extensive Reading

The Engine Trouble (3 hrs)

Reading / Writing skills

Articles (3 hrs) Prepositions (3 hrs) Compreshesion (2 hrs) (unseen)

Communication skills

Vowels Diphthongs Consonants(4 hrs)

UNIT – II : STRUCTURAL ORGANISATION IN PLANTS-

MORPHOLOGY
CHAPTER – 5: Morphology of Flowering Plants
5.1 The Root – Regions of the root and modifications of root
5.2 The Stem – Modifications of stem
5.3 The Leaf – Venation, Types, Phyllotaxy and modifications
5.4 The Inflorescence
5.5 The Flower
5.6 The Fruit
5.7 The seed

NEET / EAPCET
UNIT – I FROM
26-07-2023 to 28-07-2023
ASSIGNMENT – 2
PRACTICALS:

2.4. Animal Tissues
2.4.1. Epithelial Tissues
2.4.2.Connective Tissues
2.4.3. Muscular Tissues
2.4.4. Nervous Tissue
JUSTIFICATION:
"TISSUES: JACK OF ALL TRADES AND MASTER OF NONE"

UNIT – III ANIMAL DIVERSITY – I (INVERTEBRATA)

3.0. INTRODUCTION
3.1. Phylum: PORIFERA
3.2. Phylum: CNIDARIA (Coelenterate)
3.3. Phylum: CTENOPHORA
3.4. Phylum: PLATYHELMINTHES
3.5. Phylum: NEMATIHELMINTHES

CHAPTER–IV: MOTION IN A PLANE
4.1 Introduction
4.2 Scalars and vectors
4.3 Multiplication of vectors by real members
4.4 Addition and subtraction of vectors graphical Method
4.5 Resolution of vectors
4.6 Vector addition Analytical method
4.7 Motion in a plane
4.8 Motion in a plane with constant acceleration
4.9 Relative velocity in two dimensions
4.10 Projectile motion
4.11 Uniform circular motion

CHAPTER-V: LAWS OF MOTION
5.1 Introduction
5.2 Aristotle's fallacy
5.3 The law of inertia
5.4 Newton's first law of motion
5.5 Newton's second law of motion

2.7 Periodic trends in properties of elements – Trends
In physical properties – Periodic trends in chemical properties-Periodic trends and chemical reactivity

3. CHEMICAL BONDING AND MOLECULAR STRUCTURE
3.1 Kossel – Lew is approach to chemical bonding
3.2 Ionic or electrovalent bond
Bond parameters
VSEPR theory: predicting the geometry of simple molecules
3.5 Valence bond theory
3.6 Hybridisation
3.7 Coordinate bond – definition with examples
PRACTICALS:II. Basic Laboratory Techniques
3.8 Molecular orbital theory –Bonding in some homonuclear di atomic molecules

	Modifications of Root, Stem, Leaf. Different types of Inflorescence and fruits - Specimens	3.6. Phylum: ANNELIDA EARTH WORM: TYPE STUDY	5.6 Newton's third law of motion 5.7 Conservation of momentum 5.8 Equilibrium of a particle 5.9 Common forces in mechanics, friction 5.10 Circular motion 5.11 Solving problems in mechanics. **Practicals**1.verniercallipers e 2. Screw gauge	3.10 Hydrogen bonding
ASSIGNMENTS – II **EAPCET Classes** **UNIT TEST – 1** **(From 26-07-2023 to 28-07-2023)**				
AUGUST				
ENGLISH	**BOTANY**	**ZOOLOGY**	**PHYSICS**	**CHEMISTRY**
Poetry and Prose -She Conquered the everest (5 hrs) -This is my Prayer to Thee, My Lord! (4hrs) **Extensive Reading** The Last Leaf (4 hrs)	**UNIT – III : REPRODUCTION IN PLANTS** **CHAPTER – 6 : Modes of Reproduction** 6.1 Reproduction and its types 6.2 Asexual reproduction 6.3 Sexual reproduction	**04 Pair of Straight lines** 3.7. Phylum: ARTHROPODA 3.8. Phylum: MOLLUSCA 3.9. Phylum: ECHINODERAMATA 3.10. Phylum: HEMICHORDATA	**CHAPTER–VI: WORK, ENERGY AND POWER** 6.1 Introduction 6.2 Notions of work and kinetic energy: The work-energy theorem. 6.3 Work 6.4 Kinetic Energy 6.5 Work done by a variable force	**4 STATES OF MATTER: GASES AND LIQUIDS** 4.1 Inter molecular forces 4.2 Thermal energy 4.3 Inter molecular forces Vs thermal interactions 4.4 The gaseous State. 4.5 The gas Laws 4.6 Ideal gas equation. 4.7Graham's law of

Reading / Writing skills Verb forms (7 hrs) Transcoding Information (3 hrs) **Communication skills** Tramscriptions (3 hrs)	6.4 An over view of angiosperm life cycle **CHAPTER – 7 : Sexual Reproduction in Flowering Plants** 7.1 Pre-fertilisation structures and events 7.2 Pollination 7.3 Pollen- pistil interaction 7.4 Double Fertilization 7.5 Post fertilization structures and events 7.6 Apomixis and polyembryony **NEET / EAPCET PRACTICALS:** Reproductive parts of a Flower, calculation of percentage of Pollen Germination, Pollen tube growth on Stigma, identification of various stages of female gametophyte development in the ovary of a Flower. **UNIT – II** **FROM 24-08-2023 to 26-08-2023**	**UNIT – IV ANIMAL DIVERSITY – II (VERTEBRATA)** 4.0 INTRODUCTION 4.1. Sub-Phylum: Urochordata or Tunicata 4.2. Sub-Phylum: Cephalochordata 4.3. Sub-Phylum: Vertebrata or Craniata 4.4. Super Class: Agnatha 4.5. Super Class: Gnathostomata 4.5.1. Pisces – General Characters 4.5.2. Chondricthyes 4.5.3. Osteichthyes 4.6. Super Class: TETRAPODA 4.6.1. Amphibians – General Characters Type Study: Rana tigrine **PRACTICUM – INVERTEBRATE specimens & tissues**	6.6 The work – energy theorem for a variable force 6.7 The concept of Potential energy 6.8 The conservation of mechanical energy 6.9 The Potential energy of a spring 6.10 Various forms of energy : the laws of conservation of energy 6.11 Power 6.12 Collisions	diffusion– Dalton's law of partial pressures 4.8 Kinetic molecular theory of gases 4.9 Kinetic gas equation of an ideal gas (No derivation)–deduction of gas laws from kinetic gas equation 4.10 Distribution of molecular speeds – rms, average and most probable speeds –kinetic energy of gas molecules 4.11 Behaviour of real gases: deviation from ideal gas behavior – compressible factor Vs pressure diagrams of real gases. 4.12 Liquefaction of gases 4.13 Liquid state– properties of liquids in terms of inter molecular interactions – vapour pressure, surface tension and viscosity

				(Qualitative idea only. No mathematical derivation)

Assignment-III

AP EAPCET CLASS ON TRIGONOMETRY

UNIT TEST-II

(From 24-08-2023 to 26-08-2023)

SEPTEMBER

ENGLISH	BOTANY	ZOOLOGY	PHYSICS	CHEMISTRY
Poetry and Prose -Digital Technologies(5 hrs) -As I Grew Older (5 hrs) **Extensive Reading** The Immaculate Child (3 hrs) **Reading / Writing skills** Direct & Indirect speech (4 hrs) Transcoding Information (3 hrs) **Communication skills** Dialogue Writing (3 hrs)	**UNIT – IV : PLANT SYSTEMATICS** **CHAPTER – 8 : Taxonomy of Angiosperms** 8.1 Systems, types of classification 8.2 Semi-technical description of a flowering plant 8.3.1 Fabaceae 8.3.2 Solanaceae 8.3.3 Liliaceae **UNIT – V : CELL – STRUCTURE AND FUNCTIONS** **CHAPTER – 9 : Cell : The Unit of Life** 9.1 What is a cell? 9.2 Cell theory	**UNIT – IV VERTEBRATES (CONTD/….)** 4.6.2. Class: Reptilia General Characters & Classification 4.6.3. Class: Aves General Characters& Classification 4.6.4. Class: Mammalia General Characters & Classification **UNIT-V LOCOMOTION AND REPRODUCTION** 5.0. INTRODUCTION 5.1. Locomotion in Protozoa 5.1.1. Pseudopodia	**CHAPTER-VII SYSTEM OF PARTICLES AND ROTATIONAL MOTION** 7.1 Introduction 7.2 Centre of mass. Centre of gravity 7.3 Motion of Centre of mass 7.4 Linear momentum of a system of particles 7.5 Vector product of two vectors 7.6 Angular velocity and its relation with linear velocity **Practical's :** 3. Physical balance; 1. SimplePendulum	**5 STOICHIOMETRY** 5.1 Importance of Chemistry –Some basic concepts– 5.2 Laws of chemical combinations, Gay Lussac's law of gaseous volumes, Dalton's atomic theory, Avogadrolaw 5.3 Atomic and molecular masses-mole concept and molar mass concept of equivalent weight 5.4 Percentage composition of compounds and Calculations of empirical and molecular formulae of compounds. 5.5 Stoichiometry and stoichiometric calculations **Practicals:**III. Purification

	9.3 An overview of cell 9.4 Prokaryotic Cell 9.5 Eukaryotic Cell – Cell membrane and cell wall **PRACTICALS**: Dissecting microscope, plant taxonomy – Fabaceae, Solanaceae and Liliaceae	5.1.2. Flagella 5.1.3. Cilia 5.2. Flagellar & Ciliary Movement 5.3. Asexual Reproduction 5.4. Sexual Reproduction **UNIT-VI** **BIOLOGY IN HUMAN WELFARE** 6.0. INTRODUCTION 6.1. Parasitism & Parasitic Adaptations 6.2.1. Health 6.2.2. Disease 6.2.3.1. Common Parasites: ***Entamoeba histolytica*** Structure, Life Cycle & Prophylaxis 6.2.3.2. Common Parasites: ***Plasmodium vivax*** Structure, Life Cycle & Prophylaxis **PRACTICUM – VERTEBRATE specimens**		of Chemical Substances 5.6 Methods of expressing concentrations of solutions 5.7 Redox reactions 5.8 Oxidation number concept 5.9 Types of Redox reactions 5.10 Balancing of redox reactions –oxidation number method and half reaction (ion-electron) method 5.11 Redox reactions in Titrimetry **6. THERMODYNAMICS** 6.1. Thermodynamic terms 6.2 Applications – work – enthalpy – extensive and intensive properties – heat capacity 6.3 Measurement of ΔU and ΔH: Calorimetry 6.4 Enthalpy change, ΔrH of a reaction 6.5 Enthal pies for different types of reactions 6.6 Spontaneity 6.7 Gibbs energy change and equilibrium. 6.8 Absolute Entropy and the third law of

				Thermo dynamics
Dussehra Holidays 19.10.2023 to 25.10.2023				
AP EAPCET Classes **Assignment-IV** **QUARTERLY EXAMINATIONS** **16.09.2023–23.09.2023**				
OCTOBER				
ENGLISH	**BOTANY**	**ZOOLOGY**	**PHYSICS**	**CHEMISTRY**
Poetry and Prose -Disaster Management (5 hrs) -Body (5 hrs) **Extensive Reading** --- **Reading / Writing skills** Active & Passive Voice (5 hrs) **Communication skills** Transcription (6 hrs) Syllable (5 hrs)	**CHAPTER – 9 : Cell : The Unit of Life** 9.5 Eukaryotic cell - Endoplasmic Reticulum, Golgi apparatus, Lysosomes, Vacuoles, Mitochondria, Plastids, Ribosomes, Cytoskeleton, Cillia and Flagella, Centrosome and Centrioles, Nucleus and Microbodies. **CHAPTER – 10 :Bio-molecules** 10.1 How to analise chemical composition? 10.2 Primary and secondary metabolites	6.2.3.3. Common Parasites: ***Ascaris lumbricoides*** Structure, Life Cycle & Prophylaxis 6.2.3.4. Common Parasites: ***Wuchereriabancrofti*** Structure, Life Cycle & Prophylaxis 6.3. Brief Account of Some other diseases 6.4. Tobacco, Drugs and Alcohol Abuse (TDA Abuse) **UNIT-VII COCKROAH** **7.0.INTRODUCTION** 7.1. HABIT & HABITAT 7.2. External Characters 7.3. Locomotion 7.4. Digestive System of Periplanata	**CHAPTER-VII SYSTEM OF PARTICLES AND ROTATIONAL MOTION** 7.7 Torque and angular momentum 7.8 Equilibrium of a rigid body 7.9 Moment of inertia 7.10 Theorems of perpendicular and parallel axis. 7.11 Dynamics of rotational motion about a fixed axis. 7.12 Angular momentum in case of rotations about a fixed axis. 7.13 Rolling motion	**7.CHEMICAL EQUILIBRIUM AND ACIDS - BASES** 7.1 Equilibrium in physical process. 7.2 Equilibrium in chemical process - dynamic Equilibrium 7.3 Law of chemical equilibrium – law of mass action and equilibrium constant 7.4 Homogeneous equilibria, equilibrium constant in Gaseous systems-relationship between K_P and K_c 7.5 Heterogeneous equilibria 7.6 Applications of equilibrium constants

	10.3 Biomacromolecules 10.4 Proteins 10.5 Polysaccharides 10.6 Nucleic acids 10.7 Structure of proteins 10.8 Nature of Bond linking Monomers in a Polymer 10.9 Dynamic state of body constituents – concept of Metabolism 10.10 Metabolic basis for Living 10.11 The Living state **CHAPTER – 11: Cell Cycle and Cell Division** 11.1 Cell cycle 11.2 M - Phase 11.3 Significance of Mitosis 11.4 Meiosis **NEET / EAPCET** **PRACTICALS**: Preparation of Study of Mitosis in Onion Root tips, Stages of Meiosis using permanent slides **UNIT – III FROM 16-10-2023 to 18-10-**	7.5. Circulatory System of Periplanata 7.6. Respiratory System of Periplanata 7.7. Excretory System of Periplanata 7.8. Nervous System of Periplanata 7.9. Reproductive System of Periplanata **PRACTICUM – VERTEBRATE TISSUES**	Chapter – VIII **OSCILLATIONS** 8.1 Introduction 8.2 Periodic and oscillatory motions 8.3 Simple Harmonic motions Simple Harmonic motion and uniform circular motion	**Practicals:IV. Experiments related to pHchange** **V. Chemical equilibrium** 7.7 Relationship between equilibrium constant K, reaction quotient Q and Gibbs energy G 7.8 Factors affecting Equilibria – Le - chatelier's Principle – Application to industrial synthesis of ammonia and Sulphur trioxide 7.9 Ionic equilibrium in solutions 7.10 Acids, bases and salts - Arrhenius, Bronsted – Lowry and Lewis concepts of acids and bases 7.11 Ionization of acids and bases 7.12 Buffer solutions - designing of buffer solution - preparation of acidic buffer 7.13Solubility equilibria of sparingly soluble salts solubility product constant, common ion effect On solubility of ionic salts 8 **HYDROGEN AND ITS COMPOUNDS**

	2023			8.1 Position of hydrogen in the periodic table 8.2 Dihydrogen – occurrence and isotopes 8.3 Preparation of dihydrogen 8.4 Properties of dihydrogen 8.5 Hydrides : ionic, covalent and non-stiochiometric Hydrides 8.6 Water: physical properties; structure of water and ice-chemical properties of water; hard and soft water, Temporary and permanent hardness of water 8.7 Hydrogen peroxide: preparation; physical properties; structure and chemical properties; storage and uses **Practicals:**VI. Quantitative estimation (Volumetric analysis)
Assignment-V AP EAPCET CLASSES ON PROP OF TRIANGLES **UNIT TEST–III** **(From 16-10-2023 to 18-10-2023)**				
NOVEMBER				

ENGLISH	BOTANY	ZOOLOGY	PHYSICS	CHEMISTRY
Poetry and Prose -To a Student (5 hrs) -What Makes a Nation(6 hrs) **Extensive Reading** Will He Come Home? (2 hrs) **Reading / Writing skills** Combining Sentences (6 hrs) **Communication skills** Vocabulary (5 hrs)	**UNIT – VI: INTERNAL ORGANISATION OF PLANTS** **CHAPTER –12 : Histology and Anatomy of Flowering Plants** 12.1 The tissues 12.2 The tissue systems 12.3 Anatomy of Dicotyledonous and monocotyledonous plants – Root, Stem, Leaf 12.4 Secondary Growth **NEET / EAPCET** **UNIT – IV** **FROM 23-11-2023 TO 25-11-2023** **ASSIGNMENT – 4** **PRACTICALS**: Tissues and diversity in shapes and sizes of plant cells, anatomy of stems and roots of dicots and Mono cots.	**UNIT- VIII** **ECOLOGY AND ENVIRONMENT** 8.0. Ecology and its Importance 8.1. Organisms and Environment 8.2. ECOSYSTEM: Elementary Aspects 8.2.1. LIGHT 8.2.2. TEMPERATURE 8.2.3. WATER 8.3. POPULATION INTERACTIONS 8.4. ECOSYSTEMS & THEIR COMPONENTS 8.4.1. & 8.4.2. 8.4.3. Lake Ecosystem 8.4.4. Terrestrial Ecosystem	8.5 Velocity and acceleration in simple harmonic motion 8.6 Force law for simple harmonic motion 8.7 Energy in simple harmonic motion 8.8 Some systems executing simple harmonic motion 8.9 Damped simple harmonic motion 8.10 Forced oscillations and resonance **Practical's**:5. Parallelogram law of forces (Concurrentforces) **CHAPTER–IX** **GRAVITATION** 9.1 Introduction 9.2 Kepler's laws 9.3 Universal law of gravitation 9.4 The gravitational constant 9.5 Acceleration dueto gravity of the earth 9.6 Acceleration due to gravity below and above the surface of earth. 9.7 Gravitational potential energy 9.8 Escape speed	8.8 Heavy water 8.9 Hydrogen as a fuel **9. S–BLOCK ELEMENTS: ALKALIAND ALKALINE EARTH METALS** **Group 1 Elements:** 9.1 Alkalimetals; electronic configurations; atomic and Ionic radii; ionization enthalpy; hydration enthalpy; physical properties; chemical properties; uses 9.2 General characteristics of the compounds of the alkalimetals : oxides; halides; salts of oxyacids 9.3 Anomalous properties of lithium: 9.4 Some important compounds of sodium: sodium carbonate; sodium chloride; sodium hydroxide; sodium hydrogen carbonate 9.5 Biological importance of sodium and potassium **Group 2 elements** 9.6 Alkaline earth metals; electronic configuration; ionization enthalpy; hydration enthalpy; physical properties; chemicalproperties; uses. 9.7 General characteristics of compounds of the

		8.4.5. Artificial Ecosystem 8.5. FOOD CHAINS, FOOD WEB, **PRODUCTIVITY AND ENERGY FLOW** 8.5.1. Biotic Factors 8.5.2. The Food Chains 8.5.3. Energy Flow 8.5.4. Productivity 8.5.5. Ecological Pyramids 8.6. NUTRIENT CYCLES **PRACTICUM – VERTEBRATE TISSUES**	9.9 Earth satellite 9.10 Energy of an orbiting satellite 9.11 Geo stationary and polar satellites 9.12 Weight lessness **CHAPTER–X** **MECHANICAL PROPERTIES OF SOLIDS** 10.1 Introduction 10.2 Elastic behavior of solids 10.3 Stress and strain 10.4 Hook's law 10.5 Stress – strain curve 10.6 Elastic moduli Applications of elastic behavior of materials **Practical's**: 6. Force constant of a spring. 7. Surface Tension.	Alkaline earth metals 9.8 Anomalous behavior of beryllium; its diagonal relationship with aluminum 9.9Some important compounds of calcium 9.10 Biological importance of magnesium and Calcium **10. P-BLOCK ELEMENTS: GROUP-13 BORON FAMILY** 10.1 General introduction –electronic configuration, atomicradii, ionization enthalpy, electro negativity; physical and chemical properties 10.2 Important trends and anomalous properties of Boron 10.3 Important compounds of boron – borax, orthoboric acid, diborane 10.4 Uses of boron, aluminium and their compound **11. P-BLOCK ELEMENTS: GROUP – 14 CARBONFAMILY** 11.1 General introduction-electronic configuration, atomic and covalentradii,

				ionization enthalpy, electro negativity; physical and chemical Properties
EAPCET classes on Addition of Vectors **Assignment-VI** **UNITTEST–IV** **(From 23.11.2023 to 25.11.2023)**				
DECEMBER				
ENGLISH	**BOTANY**	**ZOOLOGY**	**PHYSICS**	**CHEMISTRY**
Poetry and Prose Revision **Extensive Reading** The Informer (One- Act Play) **Reading / Writing skills** Question form s & Question tags (6 hrs) Degrees of comparison of Adjectives (4 hrs) **Communication skills** Dialogue Writing (4 hrs) Odd sounds (1 hr)	**UNIT – VII: PLANT ECOLOGY** **CHAPTER – 13: Ecological Adaptations, Succession and Ecological Services** 13.1 Introduction 13.2 Plant communities and Ecological adaptations: Hydrophytes, Mesophytes and Xerophytes 13.3 Plant succession 13.4 Ecological services **NEET / EAPCET** **PRACTICALS**: Hydrophytes and Xerophytes specimens	8.4. POPULATION 8.5. ENVIRONMENTAL ISSUES 8.8.1. Air Pollution and Its Control 8.8.2. Water Pollution and Its Control 8.8.3. Soil Pollution (Land) and Its Control 8.8.4. Green house Effect & Global Warming 8.8.5. Ozone Depletion in the Stratosphere 8.8.6. Degradation by improper resource utilization and	**CHAPTER–XI** **MECHANICAL PROPERTIES OF FLUIDS** 11.1 Introduction 11.2 Pressure 11.3 Stream line flow 11.4 Bernoulli's principle 11.5 Viscosity 11.6 Reynolds number 11.7 Surface tension **CHAPTER–XII** **THERMAL PROPERTIES OF MATTER** 12.1 Introduction 12.2 Temperature and Heat 12.3 Measurement of temperature 12.4 Ideal – gas equation and absolute temperature	**Practicals:**VII. Qualitative Analysis 1. Reactionsvof the following an ions with at least one confirmatory test for each anion. Carbonate(CO_3^{2-}) Sulphide (S^{2-}), Sulphite(SO_3^{2-}), Sulphate (SO_4^{2-}), Nitrite(NO_2^-), Nitrate(NO_3^-) Chloride(Cl^-) Bromide(Br^-), Iodide(I^-), Phosphate (PO_4^{3-}), Acetate(CH_3COO^-) 11.2 Important trends and anomalous properties of carbon

		maintenance 8.9. CONCLUSION **PRACTICUM –** **VERTEBRATE TISSUES**	12.5 Thermal expansion 12.6 Specific Heat capacity 12.7 Calorimetry 12.8 Charge of state 12.9 Heat transfer 12.10 Newton's law of cooling. **Chapter – XIII** **THERMO DYNAMICS** 13.1 Introduction 13.2 Thermal equilibrium 13.3 Zeroth law of thermo dynamics 13.4 Heat, internal energy and work 13.5 First law of thermo dynamics 13.6 Specific heat capacity 13.7 Thermo dynamic state variables and equation of state	11.3 Allotropes of carbon 11.4Uses of carbon 11.5 Some important compounds of carbonandsilicon-Carbon monoxide, carbon dioxide, silicon dioxide, Silicone's, silicates and zeolites **12. ENVIRONMENTAL CHEMISTRY** 12.1 Definition of terms: air, water and soil pollution's 12.2 Environmental pollution 12.3 Atmospheric pollution; 12.4 Acid Rain; particulate pollutants; smog 12.5 Stratospheric pollution 12.6 Water pollution Soil pollution: pesticides and industrial wastes Strategies to control environmental pollution Green chemistry: Green chemistry in day-to-day life **13.ORGANIC CHEMISTRY-SOME BASIC PRINCIPLES AND TECHNIQUES-HYDROCARBONS**

				13.1 General introduction 13.2 Tetra valency of Carbon: shapes of organic compounds 13.3 Structural representations of organic compounds 13.4 Classification of organic compounds 13.5 Nomenclature of organic compounds 13.6 Isomerism 13.7 Fundamental concepts in organic reaction mechanisms 13.8 Methods of purification of organic compounds 13.9 Qualitative element alanalysis of organic Compounds 13.10 Quantitative elemental analysis of organic Compounds
HALF-YEARLY EXAMINATIONS 18.12.2023 to 23-12-2023				
JANUARY				
ENGLISH	**BOTANY**	**ZOOLOGY**	**PHYSICS**	**CHEMISTRY**
Poetry and Prose Revision	**REVISION**	**REVISION**	**Chapter – XIII** **THERMO DYNAMICS** 13.8 Thermo dynamic processes 13.9 Heat engines	**Practicals:** VII.2. Reactions of the following cations with at least one confirmatory test for each cation Lead(Pb^{2+}),

Extensive Reading Revision **Reading / Writing skills** Correction of sentences (6 hrs) **Communication skills** Revision			13.10 Refrigerators and heat pumps 13.11 Second law of thermos dynamics 13.12 Reversible and irreversible processes 13.13 Carnotengine, Carnot's theorem **Chapter – XIV** **KINETIC THEORY** 14.1 Introduction 14.2 Molecular nature of matter 14.3 Behavior of gases 14.4 Kinetic theory of an ideal gas 14.5 Laws of equi partition of energy 14.6 Specific heat capacity 14.7 Mean free path	Copper(Cu^{2+}), Aluminium(Al^{3+}), Ferric(Fe^{3+}), Manganese(Mn^{2+}), Nickle(Ni^{2+}), Zinc(Zn^{2+}), Cobalt(Co^{2+}), Calcium(Ca^{2+}), Strontium(Sr^{2+}), Barium(Ba^{2+}), Magnesium(Mg^{2+}) and Ammonium($NH4^{+}$) **HYDRO CARBONS** 13.11 Classification of hydrocarbons. 13.12 Alkanes- nomenclature, isomerism (structural and conformations of ethane only) Preparation and properties of alkanes 13.13 Alkenes- nomenclature, structure of ethene, isomerism (structural a geometrical). Methods of preparation of alkenes physical and chemical properties of alkenes 13.14 Alkynes– nomenclature and

				isomerism, structure of acetylene-methods of preparation of acetylene-physical properties, chemical reactions of acetylene 13.15 Aromatic Hydrocarbons**:** nomenclature and isomerism-structure of benzene, resonance and aromaticity-Preparation of benzene-physical and chemical properties of benzene-directive influence of functional groups in mono substituted benzene, carcinogenicity and toxicity **PRACTICALS:**VIII. Detection of nitrogen**,** Sulphur and chlorine in an organic compound IX.PROJECT: Scientific investigations involving laboratory testing and collecting information from other sources

ASSIGNMENT-VII

EAPCET Classes

SANKRANTHI HOLIDAYS: FROM 11.01.2024 TO 17.01.2024

PRE-FINAL EXAMINATIONS-I: FROM 19.01.2024 TO 25.01.2024

REOPENING AFTER SANKRANTI HOLIDAYS

FEBRUARY

ENGLISH	BOTANY	ZOOLOGY	PHYSICS	CHEMISTRY
Poetry and Prose Revision **Extensive Reading** Revision **Reading / Writing skills** Revision **Communication skills** Revision	**REVISION** **Practical Exams** **PRACTICAL EXAMINATION IPE 2024 TENATAIVELY 2nd Week of FEBRARUY 24** **Theory Revision**			

MARCH

THEORY EXAMS-2024