VISHWA BHARATI PUBLIC SCHOOL, GREATER NOIDA
SYLLABUS BIFURCATION SESSION: 2024-25
CLASS: XI A PCMB

ENGLISH CORE-TEXTBOOK PRESCRIBED-

1. ENGLISH READER- HORNBILL
2. SUPPLEMENTARY READER- SNAPSHOT

MONTH	BOOK /MAIN SKILL	UNIT/TOPIC
APRIL	HORNBILL SNAPSHOT WRITING SKILL	• THE PORTRAIT OF A LADY • A PHOTOGRAPH (POEM) • THE SUMMER OF THE BEAUTIFULWHITE HORSE. • SPEECH WRITING
MAY	HORNBILL SNAPSHOT WRITING SKILLS	• WE AREN'T AFRAID TO DIE • LABURNUM TOP • THE ADDRESS • POSTER MAKING
JULY	HORNBILL WRITING SKILLS	• DISCOVERING TUT-THE SAGACONTINUES • THE VOICE OF THE RAIN(POEM) • CLASSIFIED ADVERTISEMENTS
AUG	HORNBILL SNAPSHOT WRITING SKILLS AND GRAMMAR	• ADVENTURE • FATHER TO SON • MOTHER'S DAY • NOTE-MAKING AND ABSTRACTIONS • INTEGRATED GRAMMAR
SEPT	FIRST TERM EXAMINATION	• ASSESSMENT OF SPEAKING & LISTENING SKILLS

OCT	HORNBILL WRITING SKILLS AND GRAMMAR	• SILK ROAD • DEBATE WRITING • INTEGRATED GRAMMAR PRACTICE
NOV	HORNBILL SNAPSHOT WRITING SKILL	• CHILDHOOD • BIRTH • REVISION.
DEC	SNAPSHOT HORNBILL WRITING SKILLS & GRAMMAR	• THE TALE OF MELON CITY • REVISION • COMPREHENSION SKILLS(REVISION)
JAN- FEB	REVISION	• REVISION • ASSESSMENT OF SPEAKING & LISTENING SKILLS

BIOLOGY-

SUBJECT: BIOLOGY

TEXT BOOK PRESCRIBED: NCERT

MONTH	CHAPTER	TOPICS AND SUB TOPICS

APRIL	CHAPTER 5 MORPHOLOGY OF FLOWERING PLANTS CHAPTER 6 ANATOMY OF FLOWERING PLANTS CHAPTER 7 STRUCTURAL ORGANIZATION IN ANIMALS	MORPHOLOGY OF DIFFERENT PARTS OF FLOWERING PLANTS: ROOT, STEM, LEAF, INFLORESCENCE, FLOWER, FRUIT AND SEED. DESCRIPTION OF FAMILY SOLANACEAE ANATOMY AND FUNCTIONS OF TISSUE SYSTEMS IN DICOTS AND MONOCOTS. MORPHOLOGY, ANATOMY AND FUNCTIONS OF DIFFERENT SYSTEMS (DIGESTIVE, CIRCULATORY, RESPIRATORY, NERVOUS AND REPRODUCTIVE) OF FROG. **PRACTICALS** 1. TO STUDY THE VEGETATIVE & FLORAL CHARACTERISTICS OF SOLANACEAE FAMILIES. 2. TO PREPARE A TEMPORARY SLIDE OF T.S. OF DICOT ROOT, MONOCOT ROOT, DICOT STEM AND MONOCOT STEM.
MAY	CHAPTER-1: THE LIVING WORLD BIODIVERSITY CHAPTER-2: BIOLOGICAL CLASSIFICATION CHAPTER-3: PLANT KINGDOM	NEED FOR CLASSIFICATION; THREE DOMAINS OF LIFE; TAXONOMY AND SYSTEMATICS; CONCEPT OF SPECIES AND TAXONOMICAL HIERARCHY; BINOMIAL NOMENCLATURE FIVE KINGDOM CLASSIFICATIONS; SALIENT FEATURES AND CLASSIFICATION OF MONERA, PROTISTA AND FUNGI INTO MAJOR GROUPS; LICHENS, VIRUSES AND VIROID. CLASSIFICATION OF PLANTS INTO MAJOR GROUPS; SALIENT AND DISTINGUISHING FEATURES AND A FEW EXAMPLES OF ALGAE, BRYOPHYTA, PTERIDOPHYTE, GYMNOSPERM (TOPICS EXCLUDED – ANGIOSPERMS, PLANT LIFE CYCLE AND ALTERNATION OF GENERATIONS) PRACTICALS: 1. SPECIMENS/SLIDES/MODELS AND IDENTIFICATION WITH REASONS - BACTERIA, OSCILLATORIA, SPIROGYRA, RHIZOPUS, MUSHROOM, YEAST, LIVERWORT, MOSS, FERN, PINE, ONE MONOCOTYLEDONOUS PLANT, ONE DICOTYLEDONOUS PLANT AND ONE LICHEN. 2. VIRTUAL SPECIMENS/SLIDES/MODELS AND IDENTIFYING FEATURES OF - AMOEBA, HYDRA, LIVER FLUKE, ASCARIS, LEECH, EARTHWORM, PRAWN, SILKWORM, HONEYBEE, SNAIL, STARFISH, SHARK, ROHU, FROG, LIZARD, PIGEON AND RABBIT.

MONTH	CHAPTER	TOPICS AND SUB TOPICS
JULY	CHAPTER-4: ANIMAL KINGDOM	SALIENT FEATURES AND CLASSIFICATION OF ANIMALS, NON-CHORDATES UP TO PHYLA LEVEL AND CHORDATES UP TO CLASS LEVEL (SALIENT FEATURES AND AT A FEW EXAMPLES OF EACH CATEGORY). (NO LIVE ANIMALS OR SPECIMEN SHOULD BE DISPLAYED.)
	CHAPTER-8: CELL- THE UNIT OF LIFE	CELL THEORY AND CELL AS THE BASIC UNIT OF LIFE, STRUCTURE OF PROKARYOTIC AND EUKARYOTIC CELLS; PLANT CELL AND ANIMAL CELL; CELL ENVELOPE; CELL MEMBRANE, CELL WALL; CELL ORGANELLES - STRUCTURE AND FUNCTION; ENDOMEMBRANE SYSTEM, ENDOPLASMIC RETICULUM, GOLGI BODIES, LYSOSOMES, VACUOLES, MITOCHONDRIA, RIBOSOMES, PLASTIDS, MICROBODIES; CYTOSKELETON, CILIA, FLAGELLA, CENTRIOLES (ULTRASTRUCTURE AND FUNCTION); NUCLEUS.
	CHAPTER-9: BIOMOLECULES	CHEMICAL CONSTITUENTS OF LIVING CELLS: BIOMOLECULES, STRUCTURE AND FUNCTION OF PROTEINS, CARBOHYDRATES, LIPIDS, AND NUCLEIC ACIDS; ENZYME - TYPES, PROPERTIES, ENZYME ACTION. (TOPICS EXCLUDED: NATURE OF BOND LINKING MONOMERS IN A POLYMER, DYNAMIC STATE OF BODY CONSTITUENTS – CONCEPT OF METABOLISM, METABOLIC BASIS OF LIVING, THE LIVING STATE)
AUG	CHAPTER-10: CELL CYCLE AND CELL DIVISION	CELL CYCLE, MITOSIS, MEIOSIS AND THEIR SIGNIFICANCE REVISION FOR TERM I EXAMINATION **PRACTICALS** 1. MITOSIS IN ONION ROOT TIP CELLS AND ANIMALS' CELLS (GRASSHOPPER) FROM PERMANENT SLIDES
SEPT		TERM I EXAMINATION

MONTH	CHAPTER	TOPICS AND SUB TOPICS
OCT	CHAPTER-13: PHOTOSYNTHESIS IN HIGHER PLANTS	PHOTOSYNTHESIS AS A MEANS OF AUTOTROPHIC NUTRITION; SITE OF PHOTOSYNTHESIS, PIGMENTS INVOLVED IN PHOTOSYNTHESIS (ELEMENTARY IDEA); PHOTOCHEMICAL AND BIOSYNTHETIC PHASES OF PHOTOSYNTHESIS; CYCLIC AND NON-CYCLIC PHOTOPHOSPHORYLATION; CHEMIOSMOTIC HYPOTHESIS; PHOTORESPIRATION; C3 AND C4 PATHWAYS; FACTORS AFFECTING PHOTOSYNTHESIS.
	CHAPTER-14: RESPIRATION IN PLANTS	EXCHANGE OF GASES; CELLULAR RESPIRATION - GLYCOLYSIS, FERMENTATION (ANAEROBIC), TCA CYCLE AND ELECTRON TRANSPORT SYSTEM (AEROBIC); ENERGY RELATIONS - NUMBER OF ATP MOLECULES GENERATED; AMPHIBOLIC PATHWAYS; RESPIRATORY QUOTIENT.
	CHAPTER-15: PLANT- GROWTH AND DEVELOPMENT	SEED GERMINATION; PHASES OF PLANT GROWTH AND PLANT GROWTH RATE; CONDITIONS OF GROWTH; DIFFERENTIATION, DEDIFFERENTIATION AND REDIFFERENTIATION; SEQUENCE OF DEVELOPMENTAL PROCESSES IN A PLANT CELL; PLANT GROWTH REGULATORS - AUXIN, GIBBERELLIN, CYTOKININ, ETHYLENE, ABA.

NOV	CHAPTER-17: BREATHING AND EXCHANGE OF GASES	RESPIRATORY ORGANS IN ANIMALS (RECALL ONLY); RESPIRATORY SYSTEM IN HUMANS; MECHANISM OF BREATHING AND ITS REGULATION IN HUMANS - EXCHANGE OF GASES, TRANSPORT OF GASES AND REGULATION OF RESPIRATION, RESPIRATORY VOLUME; DISORDERS RELATED TO RESPIRATION - ASTHMA, EMPHYSEMA, OCCUPATIONAL RESPIRATORY DISORDERS.
	CHAPTER-18: BODY FLUIDS AND CIRCULATION	COMPOSITION OF BLOOD, BLOOD GROUPS, COAGULATION OF BLOOD; COMPOSITION OF LYMPH AND ITS FUNCTION; HUMAN CIRCULATORY SYSTEM - STRUCTURE OF HUMAN HEART AND BLOOD VESSELS; CARDIAC CYCLE, CARDIAC OUTPUT, ECG; DOUBLE CIRCULATION; REGULATION OF CARDIAC ACTIVITY; DISORDERS OF CIRCULATORY SYSTEM - HYPERTENSION, CORONARY ARTERY DISEASE, ANGINA PECTORIS, HEART FAILURE.
	CHAPTER-19: EXCRETORY PRODUCTS AND THEIR ELIMINATION	MODES OF EXCRETION - AMMONIOTELIC, UREOTELISM, URICOTELISM; HUMAN EXCRETORY SYSTEM – STRUCTURE AND FUNCTION; URINE FORMATION, OSMOREGULATION; REGULATION OF KIDNEY FUNCTION - RENIN - ANGIOTENSIN, ATRIAL NATRIURETIC FACTOR, ADH AND DIABETES INSIPIDUS; ROLE OF OTHER ORGANS IN EXCRETION; DISORDERS - URAEMIA, RENAL FAILURE, RENAL CALCULI, NEPHRITIS; DIALYSIS AND ARTIFICIAL KIDNEY, KIDNEY TRANSPLANT.

MONTH	CHAPTER	TOPICS AND SUB TOPICS
DEC	CHAPTER-20: LOCOMOTION AND MOVEMENT	TYPES OF MOVEMENT - CILIARY, FLAGELLAR, MUSCULAR; SKELETAL MUSCLE, CONTRACTILE PROTEINS AND MUSCLE CONTRACTION; SKELETAL SYSTEM AND ITS FUNCTIONS; JOINTS; DISORDERS OF MUSCULAR AND SKELETAL SYSTEMS - MYASTHENIA GRAVIS, TETANY, MUSCULAR DYSTROPHY, ARTHRITIS, OSTEOPOROSIS, GOUT.
	CHAPTER-21: NEURAL CONTROL AND COORDINATION	NEURON AND NERVES; NERVOUS SYSTEM IN HUMANS - CENTRAL NERVOUS SYSTEM; PERIPHERAL NERVOUS SYSTEM AND VISCERAL NERVOUS SYSTEM; GENERATION AND CONDUCTION OF NERVE IMPULSE
JAN	CHAPTER-22: CHEMICAL COORDINATION AND INTEGRATION	ENDOCRINE GLANDS AND HORMONES; HUMAN ENDOCRINE SYSTEM - HYPOTHALAMUS, PITUITARY, PINEAL, THYROID, PARATHYROID, ADRENAL, PANCREAS, GONADS; MECHANISM OF HORMONE ACTION (ELEMENTARY IDEA); ROLE OF HORMONES AS MESSENGERS AND REGULATORS, HYPO - AND HYPERACTIVITY AND RELATED DISORDERS; DWARFISM, ACROMEGALY, CRETINISM, GOITRE, EXOPHTHALMIC GOITRE, DIABETES, ADDISON'S DISEASE. NOTE: DISEASES RELATED TO ALL THE HUMAN PHYSIOLOGICAL SYSTEMS TO BE TAUGHT IN BRIEF.
		REVISION FOR ANNUAL EXAMINATION
FEB		**REVISION**

CHEMISTRY- SUBJECT: CHEMISTRY

TEXTBOOKS PRESCRIBED

- NCERT TEXTBOOK PART I & II

MONTH	CHAPTER	TOPICS
APRIL	UNIT 1: 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, ATOMS AND MOLECULES. ATOMIC AND MOLECULAR MASSES, MOLE CONCEPT AND MOLAR MASS,PERCENTAGE COMPOSITION, EMPIRICAL AND MOLECULAR FORMULA, CHEMICAL REACTIONS, STOICHIOMETRY AND CALCULATIONS BASED ON STOICHIOMETRY.

	PRACTICAL	EXPERIMENT: TO DETERMINE THE MELTING POINT OF THE GIVENORGANIC COMPOUND. EXPERIMENT: TO DETERMINE THE BOILING POINT OF THE GIVENORGANIC COMPOUND.
MAY	UNIT 2: 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 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.
	PRACTICAL	EXPERIMENT: PREPARATION OF STANDARD SOLUTION OF OXALIC ACIDAND SODIUM CARBONATE. EXPERIMENT: VOLUMETRIC ANALYSIS; ACID-BASE TITRATION
JULY	UNIT 3: CLASSIFICATION OFELEMENTS AND PERIODICITY IN PROPERTIES	SIGNIFICANCE OF CLASSIFICATION, BRIEF HISTORY OF THE DEVELOPMENTOF PERIODIC TABLE, MODERN PERIODIC LAW AND THE PRESENT FORM OF PERIODIC TABLE, PERIODIC TRENDS IN PROPERTIES OF ELEMENTS - ATOMIC RADII, IONIC RADII, INERT GAS RADII, IONIZATION ENTHALPY, ELECTRON GAIN ENTHALPY, ELECTRONEGATIVITY, VALENCY. NOMENCLATURE OF ELEMENTS WITH ATOMIC NUMBER GREATER THAN100.
	UNIT 4: CHEMICAL BONDING AND MOLECULAR STRUCTURE	VALENCE ELECTRONS, IONIC BOND, COVALENT BOND, BOND PARAMETERS, LEWIS'S STRUCTURE, POLAR CHARACTER OF COVALENT BOND,COVALENT CHARACTER OF IONIC BOND, VALENCE 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 (QUALITATIVE IDEA ONLY),
		HYDROGEN BOND. EXPERIMENT: TO PREPARE CRYSTALS OF COPPER SULPHATE.
	PRACTICAL	EXPERIMENT: SALT ANALYSIS- DETECTION OF GROUP-1 ACID RADICALS
AUG	UNIT 4: CHEMICAL BONDING AND MOLECULAR STRUCTURE	MOLECULAR ORBITAL THEORY OF HOMONUCLEAR DIATOMIC MOLECULES (QUALITATIVE IDEA ONLY), HYDROGEN BOND.
	UNIT 7: 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
	PRACTICAL	EXPERIMENT: DETECTION OF GROUP-2 AND 3 ACID RADICALS EXPERIMENT: SALT ANALYSIS- DETECTION OF BASIC RADICALS

SEPT	REVISION AND TERM 1 EXAMS	
TERM 2		
OCT	UNIT 5: THERMODYNAMICS	CONCEPTS 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, GIBB'S ENERGY CHANGE FOR SPONTANEOUS AND NON-SPONTANEOUS PROCESSES, CRITERIA FOR EQUILIBRIUM. THIRD LAW OF THERMODYNAMICS (BRIEF INTRODUCTION).
	UNIT 6: EQUILIBRIUM	EQUILIBRIUM IN PHYSICAL AND CHEMICAL PROCESSES, DYNAMICNATURE OF EQUILIBRIUM, LAW OF MASS ACTION, EQUILIBRIUM CONSTANT, FACTORS AFFECTING EQUILIBRIUM - LE CHATELIER'S PRINCIPLE
	PRACTICAL	EXPERIMENT: SALT ANALYSIS- DETECTION BASIC RADICALS
NOV	UNIT 6: EQUILIBRIUM	IONIC EQUILIBRIUM- IONIZATION OF ACIDS AND BASES, STRONG ANDWEAK 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).
	UNIT 8: ORGANIC CHEMISTRY – SOME BASIC PRINCIPLES AND TECHNIQUES	GENERAL INTRODUCTION, METHODS OF PURIFICATION, QUALITATIVE AND QUANTITATIVE ANALYSIS, CLASSIFICATION AND IUPAC NOMENCLATURE OF ORGANIC COMPOUNDS. ELECTRONIC DISPLACEMENTS IN A COVALENT BOND: INDUCTIVE EFFECT, ELECTROMETRIC EFFECT, RESONANCE AND HYPER CONJUGATION. HOMOLYTIC AND HETEROLYTIC FISSION OF A COVALENT BOND: FREE RADICALS, CARBOCATIONS, CARBANIONS, ELECTROPHILES AND NUCLEOPHILES, TYPES OF ORGANIC REACTIONS.
	PRACTICAL	EXPERIMENT: TO DETERMINE THE PH OF DIFFERENT SAMPLES OF FRUIT AND VEGETABLE JUICES. EXPERIMENT: TO STUDY THE CHANGE IN PH OF ACETIC ACID AND AMMONIA SOLUTION BY THE ADDITION OF COMMON ION.
DEC	UNIT 9: HYDROCARBONS	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 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.
	PRACTICAL	PROJECT: INVESTIGATORY PROJECT
JAN	UNIT 9: HYDROCARBONS	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
FEB		REVISION WORK & FINAL EXAM

PSYCHOLOGY-
REFERENCE BOOK – INTRODUCTION TO PSYCHOLOGY PART I

MONTH	UNIT	TOPICS
APRIL	WHAT IS PSYCHOLOGY?	WHAT IS PSYCHOLOGY POPULAR NOTIONS ABOUT DISCIPLINE OF PSYCHOLOGY UNDERSTANDING MIND & BEHAVIOUR EVOLUTION OF PSYCHOLOGY BRANCHES OF PSYCHOLOGY THEMES OF RESEARCH & APPLICATION PSYCHOLOGY AND OTHER DISCIPLINE PSYCHOLOGY AT WORK PSYCHOLOGY IN EVERYDAY LIFE DEVELOPMENT OF PSYCHOLOGY IN INDIA
MAY	METHODS OF ENQUIRY IN PSYCHOLOGY	GOALS OF PSYCHOLOGICAL ENQUIRY NATURE OF PSYCHOLOGICAL DATA SOME IMPORTANT METHODS –OBSERVATIONAL, EXPERIMENTAL AND CORRELATION SURVEY, PSYCHOLOGICAL TESTING CASE STUDY ANALYSIS OF DATA LIMITATIONS OF PSYCHOLOGICAL ENQUIRY PROJECT 1
JULY	HUMAN DEVELOPMENT	MEANING OF DEVELOPMENT FACTORS INFLUENCING DEVELOPMENT CONTEXT OF DEVELOPMENT OVERVIEW OF DEVELOPMENT STAGES – INFANCY, CHILDHOOD, CHALLENGES OF ADOLESCENCE, ADULTHOOD & OLD AGE

AUG	SENSORY, ATTENTIONAL AND PERCEPTUAL PROCESSES	KNOWING THE WORLD NATURE AND VARIETIES OF STIMULUS SENSE MODALITIES ADAPTATION ATTENTIONAL PROCESSES SELECTIVE AND SUSTAINED ATTENTION PERCEPTUAL PROCESSES THE PERCEIVER PRINCIPLES OF PERCEPTUAL ORGANIZATION AFTER IMAGES, PERCEPTIONS OF SPACE, DEPTH, AND DISTANCE PERCEPTUAL CONSTANCIES ILLUSIONS, SOCIO CULTURAL INFLUENCES ON PERCEPTION
OCT	LEARNING	NATURE OF LEARNING PARADIGMS OF LEARNING CLASSICAL AND OPERANT CONDITIONING, OBSERVATIONAL, COGNITIVE , VERBAL, CONCEPT, AND SKILL LEARNING FACTORS FACILITATING LEARNING TRANSFER OF LEARNING THE LEARNER – LEARNING STYLES LEARNING DISABILITIES APPLICATIONS OF LEARNING PRINCIPLES PROJECT-2

NOV	HUMAN MEMORY	NATURE OF MEMORY, INFORMATION PROCESSING APPROACH LEVELS OF PROCESSING MEMORY SYSTEMS –SENSORY, SHORT TERM AND LONG-TERM MEMORY KNOWLEDGE REPRESENTATION AND ORGANIZATION IN MEMORY AS A CONSTRUCTIVE PROCESS NATURE AND CAUSES OF FORGETTING ENHANCING MEMORY
DEC	LANGUAGE AND THOUGHT	BUILDING BLOCKS OF THINKING NATURE AND INTER RELATIONSHIP STAGES OF COGNITIVE DEVELOPMENT LANGUAGE AND LANGUAGE USE NATURE OF THINKING THOUGHT AND LANGUAGE DEVELOPMENT OF LANGUAGE & LANGUAGE USE REASONING PROBLEM SOLVING DECISION MAKING NATURE AND PROCESS OF CREATIVE THINKING DEVELOPING CREATIVE THINKING
JAN	MOTIVATION & EMOTIONS	NATURE OF MOTIVATION BIOLOGICAL MOTIVES SOCIAL AND PSYCHOLOGICAL MOTIVES – ACHIEVEMENTS, AFFILIATION AND POWER MASLOW'S HIERARCHY OF NEEDS, NATURE OF EMOTIONS PHYSIOLOGICAL, COGNITIVE, AND CULTURAL BASES OF EMOTIONS EXPRESSION OF EMOTIONS ENHANCING POSITIVE EMOTIONS E.G., HAPPINESS OPTIMISM MANAGING NEGATIVE EMOTIONS E.G., ANGER FEAR

MATHS-

TEXT BOOK PRESCRIBED: NCERT MATHS, EXEMPLAR PROBLEMS IN MATHS

MONTH	CHAPTER	SUB TOPIC
APRIL	CHAPTER -1 SETS	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. PROPERTIES OF COMPLEMENT.
	CHAPTER -2 RELATIONS AND FUNCTIONS	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 X R X R). DEFINITION OF RELATION, PICTORIAL DIAGRAMS, DOMAIN, CO-DOMAIN AND RANGE OF A RELATION. FUNCTION AS A SPECIAL TYPE OF RELATION. 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.
	CHAPTER-3 TRIGONOMETRIC FUNCTIONS	POSITIVE AND NEGATIVE ANGLES. MEASURING ANGLES IN RADIANS AND IN DEGREES AND CONVERSION FROM ONE MEASURE TO ANOTHER. DEFINITION OF TRIGONOMETRIC FUNCTIONS WITH THE HELP OF UNIT CIRCLE. TRUTH OF THE IDENTITY $SIN^2X + COS^2X = 1$, FOR ALL X.
MAY	CHAPTER -3 TRIGONOMETRIC FUNCTIONS (CNTD)	SIGNS OF TRIGONOMETRIC FUNCTIONS. DOMAIN AND RANGE OF TRIGONOMETRIC FUNCTIONS AND THEIR GRAPHS. EXPRESSING SIN (X±Y) AND COS (X±Y) IN TERMS OF SINX, SINY, COSX & COSY AND THEIR SIMPLE APPLICATIONS.
	CHAPTER -4 COMPLEX NUMBERS AND QUADRATIC EQUATIONS	NEED FOR COMPLEX NUMBERS, ESPECIALLY$\sqrt{-1}$, TO BE MOTIVATED BY INABILITY TO SOLVE SOME OF THE QUADRATIC EQUATIONS. ALGEBRAIC PROPERTIES OF COMPLEX NUMBERS. ARGAND PLANE.
	CHAPTER -5 LINEAR INEQUALITIES	LINEAR INEQUALITIES. ALGEBRAIC SOLUTIONS OF LINEAR INEQUALITIES IN ONE VARIABLE AND THEIR REPRESENTATION ON THE NUMBER LINE.
JULY	CHAPTER -6 PERMUTATIONS AND COMBINATIONS	FUNDAMENTAL PRINCIPLE OF COUNTING. FACTORIAL N. (N!) PERMUTATIONS AND COMBINATIONS, DERIVATION OF FORMULAE FOR ^NP_R AND ^NC_R AND THEIR CONNECTIONS, SIMPLE APPLICATIONS.
	CHAPTER -7 BINOMIAL THEOREM	HISTORICAL PERSPECTIVE, STATEMENT AND PROOF OF THE BINOMIAL THEOREM FOR POSITIVE INTEGRAL INDICES. PASCAL'S TRIANGLE, SIMPLE APPLICATIONS.
AUG	CHAPTER -8 SEQUENCES AND SERIES	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.
	Chapter – 9 STRAIGHT 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.

OCT	Chapter -10 CONIC SECTIONS Chapter -11 INTRODUCTION TO THREE-DIMENSIONAL GEOMETRY	SECTIONS OF A CONE: CIRCLES, ELLIPSE, PARABOLA, HYPERBOLA, A POINT, A STRAIGHT LINE AND A 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. COORDINATE AXES AND COORDINATE PLANES IN THREE DIMENSIONS. COORDINATES OF A POINT. DISTANCE BETWEEN TWO POINTS.
NOV	Chapter-12 LIMITS AND DERIVATIVES Chapter -13 STATISTICS	DERIVATIVE INTRODUCED AS RATE OF CHANGE BOTH AS 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. MEASURES OF DISPERSION: RANGE, MEAN DEVIATION, VARIANCE AND STANDARD DEVIATION OF UNGROUPED/GROUPED DATA.
DEC	Chapter -14 PROBABILITY	EVENTS; OCCURRENCE OF EVENTS, 'NOT', 'AND' AND 'OR' EVENTS, EXHAUSTIVE EVENTS, MUTUALLY EXCLUSIVE EVENTS, AXIOMATIC (SET THEORETIC) PROBABILITY, CONNECTIONS WITH OTHER THEORIES OF EARLIER CLASSES. PROBABILITY OF AN EVENT, PROBABILITY OF 'NOT', 'AND' AND 'OR' EVENTS.
JAN/FEB		REVISION

PHYSICS-

MONTH	UNIT	CHAPTER	TOPICS
APRIL	**UNIT-I** PHYSICAL WORLD & MEASUREMENT	**CHAPTER-2:** 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.
	UNIT-II KINEMATICS	**CHAPTER–3:** MOTION IN A STRAIGHT LINE	FRAME OF REFERENCE, MOTION IN A STRAIGHT LINE, ELEMENTARY CONCEPTS OF DIFFERENTIATION AND INTEGRATION FOR DESCRIBING MOTION, UNIFORM AND NONUNIFORM MOTION, AND INSTANTANEOUS VELOCITY, UNIFORMLY ACCELERATED MOTION, VELOCITY - TIME AND POSITION-TIME GRAPHS. RELATIONS FOR UNIFORMLY ACCELERATED MOTION (GRAPHICAL TREATMENT).

MAY	**UNIT-II** KINEMATICS	**CHAPTER–4:** 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 COMPONENTS, SCALAR AND VECTOR PRODUCT OF VECTORS. MOTION IN A PLANE, CASES OF UNIFORM VELOCITY AND UNIFORM ACCELERATION PROJECTILE MOTION, UNIFORM CIRCULAR MOTION.
JULY	**UNIT III**: LAWS OF MOTION	**CHAPTER–5:** 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, 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).
	UNIT IV: WORK ENERGY AND POWER	**CHAPTER – 6:** 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.
AUG	**UNIT V:** MOTION OF SYSTEM OF PARTICLES AND RIGID BODY	**CHAPTER – 7:** 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; CENTRE 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).
	UNIT VI: GRAVITATION	**CHAPTER – 8** 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 SPEED, ORBITAL VELOCITY OF A SATELLITE.
SEPT.	**REVISION FOR TERM EXAM-1**		
OCT.	**UNIT – VII:** PROPERTIES OF BULK MATTER	**CHAPTER – 9** 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
		CHAPTER – 10 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, STOKES' 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.
		CHAPTER -11 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 O F BLACKBODY RADIATION, WEIN'S DISPLACEMENT LAW, STEFAN'S LAW.

NOV	**UNIT – VIII:** THERMODYNAMICS	**CHAPTER -12:** THERMODYNAMICS	THERMAL EQUILIBRIUM AND DEFINITION OF TEMPERATURE, ZEROTH LAW OF THERMODYNAMICS, HEAT, WORK AND INTERNAL ENERGY. FIRST LAW OF THERMODYNAMICS, SECOND LAW OF THERMODYNAMICS: GASEOUS STATE OF MATTER, CHANGE OF CONDITION OF GASEOUS STATE - ISOTHERMAL, ADIABATIC, REVERSIBLE, IRREVERSIBLE, AND CYCLIC PROCESSES.

	UNIT – IX: BEHAVIOR OF PERFECT GASES AND KINETIC THEORY OF GASES	**CHAPTER - 13:** 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 EQUIP-PARTITION OF ENERGY (STATEMENT ONLY) AND APPLICATION TO SPECIFIC HEAT CAPACITIES OF GASES; CONCEPT OF MEAN FREE PATH, AVOGADRO'S NUMBER.
DEC	**UNIT X:** OSCILLATIONS AND WAVES	**CHAPTER–14:** OSCILLATIONS	PERIODIC MOTION - TIME PERIOD, FREQUENCY, DISPLACEMENT AS A FUNCTION OF TIME, PERIODIC FUNCTIONS AND THEIR APPLICATIONS. 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.
JAN	**UNIT X:** OSCILLATIONS AND WAVES	**CHAPTER–15:** WAVES	WAVE MOTION: TRANSVERSE AND LONGITUDINAL WAVES, SPEED OF TRAVELLING WAVE, DISPLACEMENT RELATION FOR A PROGRESSIVE WAVE, PRINCIPLE OF SUPERPOSITION OF WAVES, REFLECTION OF WAVES, STANDING WAVES IN STRINGS AND ORGAN PIPES, FUNDAMENTAL MODE AND HARMONICS, BEATS

PHYSICAL EDUCATION-

MONTH	UNIT	TOPICS
APRIL	**UNIT I : CHANGING TRENDS & CAREER IN PHYSICAL EDUCATION** **UNIT II : OLYMPIC VALUE EDUCATION**	MEANING & DEFINITION OF PHYSICALEDUCATION AIMS & OBJECTIVES OF PHYSICAL EDUCATION CAREER OPTIONS IN PHYSICAL EDUCATION CHANGING TRENDS IN SPORTS-PLAYING SURFACE, WEARABLE GEARS AND SPORTS EQUIPMENTS, TECHNOLOGICAL ADVANCEMENT KHELO-INDIA & FIT INDIA PROGRAML ANCIENT & MODREN OLYMPICS OLYMPIC CONCEPT & OLYMPIC VALUES(EXCELLENCE,FRIENDSHIP & RESPECT) OLYMPICS SYMBOLS, MOTTO, FLAG, OATH &ANTHEM SYMBOLS, IDEALS, OBJECTIVES & VALUES OFOLYMPISM INTERNATIONAL OLYMPIC COMMITTEEL INDIAN OLYMPIC ASSOCIATION
MAY	**UNIT III : YOGA**	MEANING & IMPORTANCE OF YOGAL ELEMENTS OF YOGA INTRODUCTION – TO ASHTANGA YOGA INTRODUCTION TO YOGIC KRIYAS (SHATKARMA) PRANAYAM & ITS TYPES ACTIVE LIFESTYLE AND STRESS MANAGEMENTTHROUGH YOGA

JULY	**UNIT IV : PHYSICAL EDUCATION & SPORTS FORCWSN (CHILDREN WITH** **SPECIAL NEEDS- DIVYANG)**	AIMS & OBJECTIVES OF ADAPTIVE PHYSICAL EDUCATION CONCEPT OF DISABILITY AND DISORDER TYPES OF DISABILITY, ITS CAUSE AND NATURE(INTELLECTUAL DISABILITIES, PHYSICAL DISABILITIES & LEARNING DISABILITIES ROLE OF VARIOUS PROFESSIONALS FORCHILDREN WITH SPECIAL NEEDS (COUNSELLOR, OCCUPATIONAL THERAPIST,PHYSIOTHERAPIST, PHYSICAL EDUCATION TEACHER, SPEECH THERAPIST & SPECIALEDUCATOR DISABILITY ETIQUETTE
AUGUST	**UNIT V : PHYSICAL FITNESS HEALTH & WELLNESS**	MEANING & IMPORTANCE OF PHYSICALFITNESS, HEALTH &WELLNESS COMPONENTS & DIMENSIONS OF PHYSICALFITNESS, HEALTH & WELLNESS TRADITIONAL SPORTS AND REGIONAL GAMESFOR PROMOTING WELLNESS LEADERSHIP THROUGH PHYSICAL ACTIVITIES& SPORTS INRODUCTION TO FIRST AID-PRICE
OCTOBER	**UNIT VI: TEST, MEASUREMENT & EVALUATION**	CONCEPT OF TEST, MEASUREMENT &EVALUATION IN PHYSICAL EDUCATION CLASSIFICATION OF TEST IN PHYSICALEDUCATION & SPORTS TEST ADMINISTRATION GUIDELINES IN PHYSICALEDUCATION CALCULATION OF BMI & WAIST - HIPRATIO, SKIN FOLD RATIO SOMATO TYPES (ENDOMORPHY,MESOMORPHY

		& ECTOMORPHY) MEASUREMENT OF HEALTH RELATED FITNESS

NOVEMBER	**UNIT VII: FUNDAMENTALSOF ANATOMY, PHYSIOLOGY & KINESIOLOGY IN** **SPORTS** **UNIT VIII: FUNDSMENTALSOF KINESLOGY AND BIOMECHANICS IN SPORT**	DEFINITION AND IMPORTANCE OF ANATOMY, PHYSIOLOGY IN EXERCISES & SPORTS FUNCTIONS OF SKELETON SYSTEM, CLASSIFICATION OF BONES & TYPES OF JOINTS FUNCTIONS & STRUCTURE OF CIRCULATORYSYSTEM & HEART FUNCTIONS & STRUCTURE OF RESPIRATARYSYSTEM. PROPERTIES & FUNCTIONS OF MUSCLES *DEFINITION IMPORTANCE OF KINESIOLOGY &BIOMECHANICS IN SPORTS * PRINCIPLES OF BIOMECHANICS * TYPES OF BODY MOVEMENT – FLEXION, EXTENSION, ABDUCTION, ADDUCTION, ROTATION, CIRCUMDUCTION, SUPINATION & PRONATION * KINETIC KINEMATIC IN SPORTS * AXIS AND PLANES – CONCEPT & ITSAPPLICATION IN BODY MOVEMENTS

DECEMBER	UNIT IX : PSYCHOLOGY & SPORTS	DEFINITION & IMPORTANCE OF PSYCHOLOGY IN PHYSICAL EDUCATION & SPORTS TEAM COHESION AND SPORTS DEVELOPMENTAL CHARACTERISTICS AT DIFFERENT STAGES OF DEVELOPMENT ADOLESCENT PROBLEMS & THEIR MANAGEMENT INTRODUCTION TO PSYCHOLOGICAL ATTRIBUTES, ATTENTION, RESILIENCE, MENTAL TOUGHNESS
JANUARY	UNIT X : TRAINING AND DOPING IN SPORTS	CONCEPT AND PRINCIPLES OF SPORTS TRAINING TRAINING LOAD : OVER LOAD, ADAPTATION AND RECOVERY WARMING UP & LIMBERING DOWN L SKILL, TECHNIQUE & STYLE CONCEPT OF DOPING AND ITS DISADVANTAGE CONCEPT OF SKILL, TECHNIQUE, TACTICS & STRATEGIES

PAINTING-
TEXTBOOK: FULLMARKS HISTORY OF INDIAN ART

MONTH & UNITS	THEORY (ALL TOPICS)	PRACTICAL
APRIL - UNIT – I	SIX LIMBS OF INDIAN PAINTING & FUNDAMENTALS OF VISUAL ARTS (ELEMENTS AND PRINCIPLES)	COMPOSITION (NATIONAL, RELIGIOUS, CULTURAL, HISTORICAL AND SOCIAL EVENTS)
MAY - UNIT – I	INTRODUCTION & PREHISTORIC PAINTINGS INDUS VALLEY ROCK ART OF	COMPOSITION (NATIONAL, RELIGIOUS, CULTURAL, HISTORICAL AND SOCIAL EVENTS)
JULY-UNIT-I	PREHISTORIC ROCK PAINTINGS - INTRODUCTION STUDY OF THE PREHISTORIC ROCK- PAINTINGS	STILL LIFE, DRAWINGS FROM NATURE
AUG – UNIT I	INTRODUCTION & PREHISTORIC ROCK PAINTINGS AND ART OF INDUS VALLEY: 2. ART OF INDUS VALLEY - INTRODUCTION 3. STUDY OF THE ARTEFACTS OF THIS PERIOD	ELEMENTS AND PRINCIPLES OF COMPOSITION
SEP-UNIT II	BUDDHIST, JAIN AND HINDU ART: 1. THE ART DURING MAURYAN, SHUNGA, KUSHANA AND GUPTA PERIODS. 2. THE ART OF AJANTA CAVES	OBJECT AND DRAWING COMPOSITION AND DRAWING
OCT-UNIT-III	TEMPLE SCULPTURES, BRONZES AND ARTISTIC ASPECTS OF INDO- ISLAMIC ARCHITECTURE: 1. ARTISTIC ASPECTS OF INDIAN TEMPLE SCULPTURES - INTRODUCTION 2. STUDY OF TEMPLE-SCULPTURES	ILLUSTRATION, STILL LIFE

NOV - UNIT III	TEMPLE SCULPTURES, BRONZES AND ARTISTIC ASPECTS OF INDO- ISLAMIC ARCHITECTURE: 1. INDIAN BRONZE SCULPTURES - INTRODUCTION 2. THE LOST-WAX PROCESS (METHOD OF CASTING METAL: SOLID AND HOLLOW)	NATURE AND OBJECTS STUDY
DEC - UNIT III	TEMPLE SCULPTURES, BRONZES AND ARTISTIC ASPECTS OF INDO- ISLAMIC ARCHITECTURE: 1. STUDY OF SOUTH INDIAN BRONZE 2. SOME ARTISTIC ASPECTS OF INDO-ISLAMIC ARCHITECTURE	NATURE STUDY (OUTDOOR), PORTFOLIO ASSESSMENT
JAN	REVISION OF ENTIRE SYLLABUS	PORTFOLIO SUBMISSION

H.P.I-

SUBJECT: HINDUSTANI PERCUSSION INSTRUMENTS

MONTH	CHAPTER AND SUB-TOPIC	ACTIVITY
APRIL	LAY AND TEENTAAL, DUGUN, CHAIGUN, LIFE SKETCH OF KUDAU SINGH MAHARAJ	PRACTICE ON TABLA AND PADHANT ON HAND
MAY	SANGEET, JHAPTAAL AND EKTAAL, KAYDA IN TEENTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
JULY	KALA, SOME PALTAS AND TIHAI OF KAYDA IN TEENTAAL, TUKRA IN TEENTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
AUGUST	BANARAS GHARANA, BEDUM TIHAI, CHAKKARDAR TUKRA	PRACTICE ON TABLA AND PADHANT ON HAND
SEPTEMBER	REVISION	
OCTOBER	NATYASHASTRA WITH SPECIAL REFERENCE TO AWANADYA VADYA, KAYDA WITH PALTA AND TIHAI IN JHAPTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
NOVEMBER	LIFE SKETCH OF NANA PANSE, RELA IN TEENTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
DECEMBER	KUDAU SINGH GHARANA, RELA, TUKRA IN JHAPTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
JANUARY	SADHARAN AND CHAKKARDAR PARAN IN TEENTAAL, SULTAAL	PRACTICE ON TABLA AND PADHANT ON HAND
FEBRUARY	REVISION	

COMPUTER SCIENCE-

BOOKS PRESCRIBED: PREETI ARORA AND SUMITA ARORA

MONTH	UNIT NO/CHAPTER NO	TOPIC & SUBHEADINGS
APRIL	UNIT II: COMPUTATIONAL THINKING AND PROGRAMMING - I	• INTRODUCTION TO PROBLEM-SOLVING: STEPS FOR PROBLEM-SOLVING (ANALYZING THE PROBLEM, DEVELOPING AN ALGORITHM, CODING, TESTING, AND DEBUGGING). REPRESENTATION OF ALGORITHMS USING FLOW CHART AND PSEUDO CODE, DECOMPOSITION • FAMILIARIZATION WITH THE BASICS OF PYTHON PROGRAMMING: INTRODUCTION TO PYTHON, FEATURES OF PYTHON, EXECUTING A SIMPLE "HELLO WORLD" PROGRAM, EXECUTION MODES: INTERACTIVE MODE AND SCRIPT MODE, PYTHON CHARACTER SET, PYTHON TOKENS (KEYWORD, IDENTIFIER, LITERAL, OPERATOR, PUNCTUATOR), VARIABLES, CONCEPT OF L-VALUE AND R-VALUE, USE OF COMMENTS.

		• KNOWLEDGE OF DATA TYPES: NUMBER (INTEGER, FLOATING POINT, COMPLEX), BOOLEAN, SEQUENCE (STRING, LIST, TUPLE), NONE, MAPPING (DICTIONARY), MUTABLE AND IMMUTABLE DATA TYPES OPERATORS: ARITHMETIC OPERATORS, RELATIONAL OPERATORS, LOGICAL OPERATORS, ASSIGNMENT OPERATOR, AUGMENTED ASSIGNMENT OPERATORS, IDENTITY OPERATORS (IS, IS NOT), MEMBERSHIP OPERATORS (IN, NOT IN). • EXPRESSIONS, STATEMENT, TYPE CONVERSION & INPUT/OUTPUT: PRECEDENCE OF OPERATORS, EXPRESSION, EVALUATION OF EXPRESSION, PYTHON STATEMENT, TYPE CONVERSION (EXPLICIT & IMPLICIT CONVERSION), ACCEPTING DATA AS INPUT FROM THE CONSOLE AND DISPLAYING OUTPUT ERRORS: SYNTAX ERRORS, LOGICAL ERRORS, RUNTIME ERRORS
MAY	UNIT II: COMPUTATIONAL THINKING AND PROGRAMMING – I	• FLOW OF CONTROL: INTRODUCTION, USE OF INDENTATION, SEQUENTIAL FLOW, CONDITIONAL AND ITERATIVE FLOW CONTROL. • CONDITIONAL STATEMENTS: IF, IF-ELSE, IF-ELF-ELSE; SIMPLE PROGRAMS: E.G.: ABSOLUTE VALUE, SORT 3 NUMBERS, DIVISIBILITY. • ITERATIVE STATEMENTS: FOR LOOP, RANGE FUNCTION, WHILE LOOP, FLOWCHARTS, BREAK AND CONTINUE STATEMENTS, NESTED LOOPS, SUGGESTED PROGRAMS: GENERATING PATTERN, SUMMATION OF SERIES, FINDING THE FACTORIAL OF A POSITIVE NUMBER ETC.
JULY	UNIT II: COMPUTATIONAL THINKING AND PROGRAMMING - I	• STRINGS: INTRODUCTION, INDEXING, STRING OPERATIONS (CONCATENATION, REPETITION, MEMBERSHIP & SLICING), TRAVERSING A STRING USING LOOPS, BUILT-IN FUNCTIONS: LEN(), CAPITALIZE(), TITLE(), LOWER(), UPPER(), COUNT(), FIND(), INDEX(), ENDS WITH(), STARTS WITH(), ISALNUM(), IS ALPHA(), IS DIGIT(), IS LOWER(), IS UPPER(), IS SPACE(), STRIP(), STRIP(), STRIP(), REPLACE(), JOIN(), PARTITION(), SPLIT(). • LISTS: INTRODUCTION, INDEXING, LIST OPERATIONS (CONCATENATION, REPETITION, MEMBERSHIP & SLICING), TRAVERSING A LIST USING LOOPS, BUILT-IN FUNCTIONS: LEN(), LIST(), APPEND(), EXTEND(), INSERT(), COUNT(), INDEX(), REMOVE(), POP(), REVERSE(), SORT(), SORTED(), MIN(), MAX(), SUM(); NESTED LISTS, SUGGESTED PROGRAMS: FINDING THE MAXIMUM, MINIMUM, MEAN OF NUMERIC VALUES STORED IN A LIST; LINEAR SEARCH ON A LIST OF NUMBERS AND COUNTING THE FREQUENCY OF ELEMENTS IN A LIST

AUGUST	UNIT II: COMPUTATIONAL THINKING AND PROGRAMMING – I	• TUPLES: INTRODUCTION, INDEXING, TUPLE OPERATIONS (CONCATENATION, REPETITION, MEMBERSHIP, AND SLICING); BUILT-IN FUNCTIONS/METHODS – LEN(), TUPLE(), COUNT(), INDEX(), SORTED(), MIN(), MAX(), SUM(); TUPLE ASSIGNMENT, NESTED TUPLE; SUGGESTED PROGRAMS: FINDING THE MINIMUM, MAXIMUM, MEAN OF VALUES STORED IN A TUPLE; LINEAR SEARCH ON A TUPLE OF NUMBERS, COUNTING THE FREQUENCY OF ELEMENTS IN A TUPLE. • DICTIONARY: INTRODUCTION, ACCESSING ITEMS IN A DICTIONARY USING KEYS, MUTABILITY OF A DICTIONARY (ADDING A NEW TERM, MODIFYING AN EXISTING ITEM), TRAVERSING A DICTIONARY, BUILT-IN FUNCTIONS/METHODS – LEN(), DICT(), KEYS(), VALUES(), ITEMS(), GET(), UPDATE(), DEL(), DEL, CLEAR(), FROM KEYS(), COPY(), POP(), POP ITEM(), SET DEFAULT(), MAX(), MIN(), SORTED(); SUGGESTED PROGRAMS: COUNT THE NUMBER OF TIMES A CHARACTER APPEARS IN A GIVEN STRING USING A DICTIONARY, CREATE A DICTIONARY WITH NAMES OF EMPLOYEES, THEIR SALARY AND ACCESS THEM.
SEPTEMBER	**TERM 1**	
OCTOBER	UNIT II: COMPUTATIONAL THINKING AND PROGRAMMING – I	INTRODUCTION TO PYTHON MODULES: IMPORTING MODULE USING ‘IMPORT ’ AND USING FROM STATEMENT, IMPORTING MATH MODULE (PI, E, SQRT(), CEIL(), FLOOR(), POW(), FABS(), SIN(), COS(), TAN()); RANDOM MODULE (RANDOM(), RAN DINT(), RAND RANGE()), STATISTICS MODULE (MEAN(), MEDIAN(), MODE()).
NOVEMBER	UNIT 1: INTRODUCTION OF COMPUTER SYSTEM	• BASIC COMPUTER ORGANISATION: INTRODUCTION TO COMPUTER SYSTEM, HARDWARE, SOFTWARE, INPUT DEVICE, OUTPUT DEVICE, CPU, MEMORY (PRIMARY, CACHE AND SECONDARY), UNITS OF MEMORY (BIT, BYTE, KB, MB, GB, TB, PB). • TYPES OF SOFTWARE: SYSTEM SOFTWARE (OPERATING SYSTEMS, SYSTEM UTILITIES, DEVICE DRIVERS), PROGRAMMING TOOLS AND LANGUAGE TRANSLATORS (ASSEMBLER, COMPILER & INTERPRETER), APPLICATION SOFTWARE. OPERATING SYSTEM (OS): FUNCTIONS OF OPERATING SYSTEM, OS USER INTERFACE. • BOOLEAN LOGIC: NOT, AND, OR, NAND, NOR XOR, TRUTH TABLE, DE MORGAN’S LAWS AND LOGIC CIRCUITS. • NUMBER SYSTEM: BINARY, OCTAL, DECIMAL AND HEXADECIMAL NUMBER SYSTEM; CONVERSION BETWEEN NUMBER SYSTEMS.

		• ENCODING SCHEMES: ASCII, ISCII AND UNICODE (UTF8, UTF32).
DECEMBER	UNIT III: SOCIETY, LAW AND ETHICS	• DIGITAL FOOTPRINTS • DIGITAL SOCIETY AND NETIZEN: NET ETIQUETTES, COMMUNICATION ETIQUETTES, SOCIAL MEDIA ETIQUETTES. • DATA PROTECTION: INTELLECTUAL PROPERTY RIGHTS (COPYRIGHT, PATENT, TRADEMARK), VIOLATION OF IPR (PLAGIARISM, COPYRIGHT INFRINGEMENT, TRADEMARK INFRINGEMENT), OPEN-SOURCE SOFTWARE AND LICENSING (CREATIVE COMMONS, GPL AND APACHE). • CYBERCRIME: DEFINITION, HACKING, EAVESDROPPING, PHISHING AND FRAUD EMAILS, RANSOMWARE, PREVENTING CYBERCRIME. • CYBER SAFETY: SAFELY BROWSING THE WEB, IDENTITY PROTECTION, CONFIDENTIALITY, CYBER TROLLS, AND BULLYING. • SAFELY ACCESSING WEBSITES: MALWARE, VIRUSES, TROJANS, ADWARE. • E-WASTE MANAGEMENT: PROPER DISPOSAL OF USED ELECTRONIC GADGETS. • INDIAN INFORMATION TECHNOLOGY ACT (IT ACT) • TECHNOLOGY & SOCIETY: GENDER AND DISABILITY ISSUES WHILE TEACHING AND USING COMPUTERS
JANUARY	PROJECT	PROJECT IN COMPUTER SCIENCE(SUBMISSION) REVISION OF THE SYLLABUS AND LAB PRACTICE
FEBRUARY	TERM II	

BUSINESS ADMINISTRATION-

MONTH	CHAPTER /BOOK /MAIN SKILL & UNIT/TOPICS	UNIT/TOPIC
APRIL	**SUBJECT SPECIFIC SKILLS** **EMPLOYABILITY SKILLS**	UNIT 1 :INTRODUCTION TO BUSINESS OPERATION UNIT 1 : COMMUNICATION SKILLS-IV
MAY	**SUBJECT SPECIFIC SKILLS** **EMPLOYABILITY SKILLS**	UNIT 2 : BUSINESS ENVIRONMENT UNIT 2 : SELF-MANAGEMENT SKILLS- IV
JULY	**SUBJECT SPECIFIC SKILLS** **EMPLOYABILITY SKILLS**	UNIT 3 :PRODUCTS & SERVICES UNIT 3 : ICT SKILLS- IV

AUGUST	**SUBJECT SPECIFIC SKILLS** **EMPLOYABILITY SKILLS**	UNIT 4 :TYPES OF ORGANISATION UNIT 4 : ENTREPRENEURIAL SKILLS- IV
SEP	**1ST TERM EXAMINATION**	
OCTOBER	**SUBJECT SPECIFIC SKILLS** **EMPLOYABILITY SKILLS**	UNIT 5 : FORMATION OF PARTNERSHIP FIRM AND JOINT STOCK COMPANY UNIT 5 : GREEN SKILLS- IV
NOV	**SUBJECT SPECIFIC SKILLS**	UNIT 6 : BUSINESS CORRESPONDENCE UNIT 7 : FUNCTIONAL AREAS OF MANAGEMENT
DECEMBER	**SUBJECT SPECIFIC SKILLS**	UNIT 8 :ORGANISATIONAL BEHAVIOUR
JANUARY	**REVISION**	

YOGA

MONTH	CHAPTER /BOOK /MAIN SKILL & UNIT/TOPICS	UNIT/TOPIC
APRIL	**SUBJECT SPECIFIC SKILLS**	UNIT 1 – INTRODUCTION TO YOGA AND YOGIC PRACTICES - I
MAY	**SUBJECT SPECIFIC SKILLS**	UNIT 2 – INTRODUCTION TO YOGA TEXTS - I
JULY	**SUBJECT SPECIFIC SKILLS**	UNIT 3 – YOGA FOR HEALTH PROMOTION - I

	EMPLOYABILITY SKILLS	UNIT 1 : COMMUNICATION SKILLS- IV
AUGUST	**EMPLOYABILITY SKILLS**	UNIT 2 : SELF-MANAGEMENT SKILLS- IV
SEPTEMBER	**1ST TERM EXAMINATION**	
OCTOBER	**EMPLOYABILITY SKILLS**	UNIT 3 : ICT SKILLS- IV
NOVEMBER	**EMPLOYABILITY SKILLS**	UNIT 4 : ENTREPRENEURIAL SKILLS- IV
DECEMBER	**EMPLOYABILITY SKILLS**	UNIT 5 : GREEN SKILLS- IV
JANUARY	**REVISION**	

ARTIFICIAL INTELLIGENCE-

BOOKS PRESCRIBED: TOUCHPAD AND SULTAN CHAND

MONTH	UNIT NO/CHAPTER NO	TOPIC & SUBHEADINGS

APRIL	UNIT I: INTRODUCTION TO AI	• What is AI?
		• History of AI
		• What is Machine Learning
		  ○ Difference between conventional programming and machine learning
		  ○ How is Machine learning related to AI?
		• What is data?
		  ○ Structured
		  ○ Unstructured
		  ○ Examples of unstructured data- text, images
		• Terminology and Related Concepts
		  ○ Machine learning
		  ○ Supervised learning (examples)
		  ○ Unsupervised learning (examples)
		  ○ Deep learning
		  ○ Reinforcement learning
		  ○ Machine Learning Techniques and Training
		  ○ Neural Networks
		• What machine learning can and cannot do
		• More examples of what machine learning can and cannot do
		• Jobs in AI

	UNIT 1 : COMMUNICATION SKILLS	**METHODS OF COMMUNICATION** **• VERBAL** **• NON-VERBAL** **• VISUAL** **COMMUNICATION STYLES-** **ASSERTIVE, AGGRESSIVE, PASSIVE-AGGRESSIVE, SUBMISSIVE, ETC.** **WRITING SKILLS TO THE FOLLOWING:** **• SENTENCE** **• PHRASE** **• KINDS OF SENTENCES** **• PARTS OF SENTENCE** **• PARTS OF SPEECH**

		• **ARTICLES** • **CONSTRUCTION OF A** • **PARAGRAPH**

MAY	UNIT 2: AI APPLICATIONS AND METHODOLOGIES	• Key Fields of Application in AI
		  ○ Chatbots (Natural Language Processing, speech)
		  ○ Alexa, Siri and others
		  ○ Computer vision
		  ○ Weather Predictions
		  ○ Price forecast for commodities
		  ○ Self-driving cars
		• Characteristics and types of AI
		  ○ Data driven
		  ○ Autonomous systems
		  ○ Recommender systems
		  ○ Human like

		• Cognitive Computing (Perception, Learning, Reasoning) • Recommended deep-dive in NLP, CV, etc.* • AI and Society • The Future with AI, and AI in Action • Non-technical explanation of deep learning
	UNIT 2 SELF-MANAGEMENT SKILLS	• **DESCRIBE THE IMPORTANCE OF DRESSING APPROPRIATELY, LOOKING DECENT AND POSITIVE BODY LANGUAGE** • **DESCRIBE THE TERM GROOMING** • **PREPARE A PERSONAL GROOMING CHECKLIST** • **DESCRIBE THE TECHNIQUES OF SELF EXPLORATION** • **DESCRIBE THE IMPORTANT FACTORS THAT INFLUENCE IN TEAM BUILDING** • **DESCRIBE FACTORS INFLUENCING TEAM WORK** • **MEANING AND IMPORTANCE OF TIME MANAGEMENT – SETTING AND PRIORITIZING GOALS, CREATING A SCHEDULE, MAKING LISTS OF TASKS, BALANCING WORK AND LEISURE, USING DIFFERENT OPTIMIZATION TOOLS TO BREAK LARGE TASKS INTO SMALLER TASKS**

JULY	UNIT 3: MATHS FOR AI	• Introduction to matrices (Recap)
		• Introduction to set theory (Recap)
		  ○ Introduction to data table joins
		• Simple statistical concepts
		• Visual representation of data, bar graph, histogram, frequency bins, scatter plots, etc.
		• With co-ordinates and graphs introduction to dimensionality of data
		• Simple linear equation
		  ○ Least square method of regression

	UNIT 4: AI VALUES (ETHICAL DECISION MAKING)	AI: Issues, Concerns and Ethical Considerations • Issues and Concerns around AI • AI and Ethical Concerns • AI and Bias • AI: Ethics, Bias, and Trust • Employment and AI

AUGUST	UNIT 5: INTRODUCTION TO STORY TELLING	• Storytelling: communication across the ages
		  ○ Learn why storytelling is so powerful and cross-cultural, and what this means for data storytelling
		• The Need for Storytelling
		• Story telling with data
		  ○ By the numbers: How to tell a great story with your data.
		• Conflict and Resolution
		  ○ Everyone wants to resolve conflict, and a good data storyteller is there to help!
		• Storytelling for audience
		  ○ Your data storytelling depends on the background knowledge of your audience.
		• Insights from storytelling
		  ○ Make the audience care about the data
		  ○ Keep the audience engaged
		  ○ Create from the end; present from the beginning
		  ○ Start with an anecdote, end with the data
		  ○ Build suspense, not surprise

	UNIT 6: CRITICAL AND CREATIVE THINKING	• Design thinking framework
		  ○ Right questioning (5W and 1H)
		  ○ Identifying the problem to solve
		  ○ Ideate

SEPTEMBER	**TERM 1**	

OCTOBER	UNIT 7: DATA ANALYSIS (COMPUTATIONAL THINKING)	• Types of structured data
		  ○ Date and time
		  ○ String
		  ○ Categorical
		• Representation of data
		• Exploring Data
		  ○ Cases, variables and levels of measurement
		  ○ Data matrix and frequency table
		  ○ Graphs and shapes of distributions
		  ○ Mode, median and mean
		  ○ Range, interquartile range and box plot
		  ○ Variance and standard deviation
		  ○ Z-scores
		  ○ Example
		  ○ Practice exercise

	UNIT 8: REGRESSION	• Correlation and Regression
		  ○ Crosstabs and scatterplots
		  ○ Pearson's r
		  ○ Regression - Finding the line
		  ○ Regression - Describing the line
		  ○ Regression - How good is the line?
		  ○ Correlation is not causation
		  ○ Example contingency table
		  ○ Example Pearson's r and regression Readings
		  ○ Correlation
		  ○ Regression
		  ○ Caveats and examples
		  ○ Practice exercise Correlation and Regression
		  ○ Explain the importance of data from above examples
		  ○ How prediction changes with changing data?

NOVEMBER	UNIT 9: CLASSIFICATION& CLUSTERING	• What is a classification problem? • Examples - Simple binary classification • Introduction to binary classification with logistic regression • True positives, true negatives, false positives and false negatives ○ Where we should care more with examples ○ Example- false negative of a disease detection can have different implication than false positive, one will be more physical harm and other will be mental • **Practice exercise on simple Binary Classification model**
		• What is a clustering problem? • Why is it unsupervised? • Examples • **Practice exercise on simple Clustering model**
	UNIT 3 – INFORMATION AND COMMUNICATION SKILLS	• INTRODUCTION TO WORD PROCESSING. • SOFTWARE PACKAGES FOR WORD PROCESSING. • OPENING AND EXITING THE WORD PROCESSOR. • CREATING A DOCUMENT • EDITING TEXT • WRAPPING AND ALIGNING THE TEXT • FONT SIZE, TYPE AND FACE • HEADER AND FOOTER • AUTO CORRECT • NUMBERING AND BULLET • CREATING TABLE • FIND AND REPLACE • PAGE NUMBERING. • PRINTING DOCUMENT • SAVING A DOCUMENT IN VARIOUS FORMATS.
DECEMBER	UNIT 10: AI VALUES (BIAS AWARENESS)	• AI working for good • Principles for ethical AI • Types of bias (personal /cultural • /societal) • How bias influences AI based decisions • How data driven decisions can be debiased

	UNIT 4: ENTREPRENEURIAL SKILLS	• **VALUES IN GENERAL AND ENTREPRENEURIAL VALUES** • **ENTREPRENEURIAL VALUE ORIENTATION WITH RESPECT TO INNOVATIVENESS, INDEPENDENCE, OUTSTANDING PERFORMANCE AND RESPECT FOR WORK.** • **ATTITUDES IN GENERAL AND ENTREPRENEURIAL ATTITUDES.** • **USING IMAGINATION** • **INTUITION TENDENCY TO TAKE MODERATE RISK** • **ENJOYING FREEDOM OF EXPRESSION AND ACTION** • **LOOKING FOR ECONOMIC OPPORTUNITIES** • **BELIEVING THAT WE CAN CHANGE THE ENVIRONMENT** • **ANALYZING SITUATION AND PLANNING ACTION** • **INVOLVING IN ACTIVITY**
	UNIT 5 : GREEN SKILLS	• **MAIN SECTORS OF GREEN ECONOMY- E WASTE MANAGEMENT, GREEN TRANSPORTATION, RENEWAL ENERGY, GREEN CONSTRUCTION, WATER MANAGEMENT** • **POLICY INITIATIVES FOR GREENING ECONOMY IN INDIA** • **STAKEHOLDERS IN GREEN ECONOMY** • **ROLE OF GOVERNMENT AND PRIVATE AGENCIES IN GREENING CITIES, BUILDINGS, TOURISM, INDUSTRY, TRANSPORT, RENEWABLE ENERGY, WASTE MANAGEMENT, AGRICULTURE, WATER, FORESTS AND FISHERIES**
JANUARY	PROJECT	PROJECT WORK/ FIELD VISIT/ PROJECT/ IDEATION + PRESENTATION REVISION OF THE SYLLABUS AND LAB PRACTICE
FEBRUARY	TERM II	

MASS MEDIA STUDIES-

MONTHS		UNITS	
APRIL/MAY	PART A	**EMPLOYABILITY SKILLS-** UNIT-1 COMMUNICATION SKILLS – III UNIT 2: SELF-MANAGEMENT SKILLS – III	
JULY	PART A	UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – III UNIT 4: ENTREPRENEURIAL SKILLS – III UNIT 5: GREEN SKILLS – III	
AUGUST	PART B	**SUBJECT SPECIFIC SKILLS-** UNIT 1: INTRODUCTION OF MASS COMMUNICATION UNIT 2: EVOLUTION OF THE MEDIA	
SEPTEMBER		REVISION/HALF YEARLY	
OCTOBER	PART B	UNIT 3: UNDERSTANDING MEDIA UNIT 4: PREPRODUCTION SKILLS	
NOVEMBER	PART C	PROJECT WORK/FIELD VISIT PRACTICAL WORK PRACTICAL EXAMINATION	
DECEMBER	PART D	VIVA VOCE PRACTICAL FILE/STUDENT PORTFOLIO	
JAN/FEB		REVISION	