St. Paul's School, Aya Nagar

Science Section Monthwise Syllabus

Class XII

English		
Month	Chapters and Topic Covered	Practical/Activities
April	 WRITING SKILLS Notice writing FLAMINGO - The Last Lesson (Prose) Aunt Jennifer's Tigers (Poem) My Mother at Sixty-Six (Poem) VISTAS The Tiger King On the Face of It 	
Мау	1. WRITING SKILLS • Formal Invitation • Reply to formal Invitation • Informal Invitation • Reply to informal invitation • Reply to informal invitation • FLAMINGO- • Lost Spring (Prose) • Keeping Quiet (Poem) 3. VISTAS- • Memories of Childhood	Class tests based on the chapters completed
July	 WRITING SKILLS Letter to the Editor FLAMINGO Deep Water (Prose) A Thing of Beauty VISTAS- Journey to the end of the Earth 	
August	1. WRITING SKILLS	ASSESSMENT OF

	 Letters for job application with bio data or resume FLAMINGO- The Rattrap (Prose) A Roadside Stand (Poem) VISTAS- The Enemy 	SPEAKING SKILLS
September	 WRITING SKILLS Article/Report Writing FLAMINGO- Indigo (Prose) Poets and Pancakes VISTAS- The Third Level Revision of the Syllabus covered for Term-1 exam 	ASSESSMENT OF LISTENING SKILLS
October	 FLAMINGO The Interview Going Places 	Project Work
November till First week	Revision of the syllabus covered (Pre-Boards)	Project Work

Physics		
Month	Chapters and Topic Covered	Practical/Activities
April	Chapter–1: Electric Charges and Fields Electric charges, Conservation of charge, Coulomb's law-force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric	

dipo sens	cular loop. Ampere's law and its applications to nitely long straight wire. Straight solenoid (only litative treatment), force on a moving charge in uniform gnetic and electric fields. Force on a current-carrying ductor in a uniform magnetic field, force between two allel current-carrying conductors-definition of ampere, que experienced by a current loop in uniform magnetic d; Current loop as a magnetic dipole and its magnetic ole moment, moving coil galvanometer current sitivity and conversion to ammeter and voltmeter.	
Cha Con Sava circu infir qual mag cono para torq	apter–4: Moving Charges and Magnetism neept of magnetic field, Oersted's experiment. Biot - vart law and its application to the current carrying	
May Cha Elect cond elect nonl resis resis and para	apter–3: Current Electricity ctric current, flow of electric charges in a metallic ductor, drift velocity, mobility and their relation with ctric current; Ohm's law, V-I characteristics (linear and linear), electrical energy and power, electrical stivity and conductivity, temperature dependence of stance, Internal resistance of a cell, potential difference emf of a cell, combination of cells in series and in allel, Kirchhoff's rules, Wheatstone bridge.	To determine resistivity of two / three wires by plotting a graph for potential difference versus current. To find resistance of a given wire / standard resistor using a metre bridge.
field field appl wire char Cha Elec due equi syste elec and elec com capa diele capa	d due to a dipole, torque on a dipole in uniform electric d. Electric flux, statement of Gauss's theorem and its lications to find field due to infinitely long straight e, uniformly charged infinite plane sheet and uniformly rged thin spherical shell (field inside and outside). apter-2: Electrostatic Potential and Capacitance ctric potential, potential difference, electric potential to a point charge, a dipole and system of charges; ipotential surfaces, electrical potential energy of a tem of two-point charges and of electric dipole in an ctrostatic field. Conductors and insulators, free charges bound charges inside a conductor. Dielectrics and ctric polarisation, capacitors and capacitance, nbination of capacitors in series and in parallel, acitance of a parallel plate capacitor with and without lectric medium between the plates, energy stored in a acitor (no derivation, formulae only).	

	Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties. Chapter-6: Electromagnetic Induction Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.	resistances using a metre bridge.
August	Chapter–7: Alternating Current Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer. Chapter–8: Electromagnetic Waves Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.	To determine resistance of a galvanometer by half-deflection method and to find its figure of merit. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same. OR To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.
September	 Chapter–9: Ray Optics and Optical Instruments Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers. Chapter–10: Wave Optics Wave optics: Wavefront and Huygens principle, reflection and refraction of plane waves at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygens principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	To find the value of v for different values of u in case of a concave mirror and to find the focal length. To find the focal length of a convex mirror, using a convex lens
October	Chapter–11: Dual Nature of Radiation and Matter Dual nature of radiation, Photoelectric effect, Hertz and	To find the focal length of a concave lens, using a convex lens.

	Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect Matter waves-wave nature of particles, de-Broglie relation. Chapter–12: Atoms Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in his orbit, of hydrogen line spectra (qualitative treatment only)	To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
November till First week	 Chapter–13: Nuclei Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion. Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier. 	To find the refractive index of a liquid using a convex lens and plane mirror. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.

Chemistry		
Month	Chapters and Topic Covered	Practical/Activities
April	Ch-2 Solutions- Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of	Group Presentation on important topics of these chapters . 1) To prepare 250 ml of 0.02 M (M/50) Mohr's Salt solution.

	freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor. Ch -4 Chemical Kinetics -Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.	
May	Ch-8 Haloalkane - Nomenclature, nature of C-X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C-X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT. Ch- 12 Biomolecules- Carbohydrates - Classification (aldoses and ketoses), monosaccahrides (glucose and fructose), D-L	PowerPoint presentation on Haloalkane and Haloarene Project on different topics of biomolecules . 1) To analyse the given inorganic salt for acidic and basic radicals [(NH4)2 CO3 2) To analyse the given salt of acidic and basic radical (NH4Cl)

	configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure. Vitamins - Classification and functions. Nucleic Acids: DNA and RNA.	
July	Ch-9 Alcohol , Phenol and ether -Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophillic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses. Ch-10 Aldehyde, ketone and Carboxylic -Aldehydes	 To analyse the given inorganic salt for acidic and basic radicals.[CuSO4]. To analyze the given inorganic salt for acidic and basic radical.Al2(SO4)3. To analyze the given inorganic salt for acidic and basic radical. (ZnCl)2.

	and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses	
August	Ch - 11 Amines Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry. Ch-7 Coordination compounds - Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).	Writing of the content for the sub- topics of the project. 1) To analyze the given inorganic salt for acidic and basic radical. (NH4)2C2O4 2) To analyze the given inorganic salt for acidic and basic radical.
September	First terminal examination Ch-6 d and f block - General introduction,	1) To prepare a standard solution of M/50 Mohr's salt

	electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K2Cr2O7 and KMnO4. Lanthanoids - Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids.	solution. With its help, determine molarity and strength of KMnO4 Solution. 2) To prepare solution of M/20 oxalic acid with its help determine the morality and strength of given KMnO4 solution.
October	Ch -3 Electrochemistry - Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.	 To identify the functional group in the given organic compound. To identify the functional group in the given organic compound. To identify the functional group in the given organic compound. To identify the functional group in present in the given organic compound.
November till First week	Revision Starts through Class test	1) To study carbohydrates in pure form of detect

	its presence in food. 2) To study fat in pure form and to detect into presence in given food sample.

Mathematics			
Month	Chapters and Topic Covered	Practical/Activities	
March	 Matrices Determinants 	Assignment on Matrices and Determinants	
April	 Inverse Trigonometric Functions Relations and Functions 	Assignment on Inverse Trigonometric Functions Activity 1 - To verify that the relation R in the set L of all lines in a plane, defined by R = $\{(1, m) : 1 m\}$ is an equivalence relation. Activity 2 - To draw the graph of , using the graph of sin x and demonstrate the concept of mirror reflection (about the line y = x).	
May	1. Continuity and Differentiability	Common worksheet on Chapter 1 to 5 During summer vacations Activity 3 - To establish a relationship between common logarithm (to the base 10) and natural logarithm (to the base e) of the number x.	

July	 Applications of Derivatives Integration 	Assignment on Applications of Derivatives Activity 4 - To understand the concepts of local maxima, local minima and point of inflection. Activity 5 - To find the time when the area of a rectangle of given dimensions become maximum, if the length is decreasing and the breadth is increasing at given rates.
August	Integration (continued)	Assignment on Integration Activity 6 - To evaluate the definite integral $\int_{a}^{b} \sqrt{(1 - x^2)}$ dx as the limit of a sum and verify it by actual integration.
September	1. Application of integrals	Assignment on Application of integrals
October	 Differential equations Vector Algebra Three-Dimensional Geometry 	Assignment on Differential equations, Vector Algebra and Three-Dimensional Geometry Activity 7 - To verify that angle in a semicircle is a right angle, using the vector method. Activity 8 - To measure the shortest distance between two skew lines and verify it analytically. Activity 9 - To locate the points to given coordinates in space, measure the distance between two points in space and then to verify the distance using distance formula.

November till First week	 Linear programming Probability 	Assignment on Linear programming and Probability Activity 10 - To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.	
Mathematics			

Biology		
Month	Chapters and Topic Covered	Practical/Activities
April	Principles of Inheritance and Variation	To study the seed sample and analyse the Mendalian ratio.
	Molecular basis of inheritance	To study the pedigree chart of genetic trait like rolling of tongue, blood groups, ear lobes,widow's peak, colour blindness.
Мау	Evolution	To study homologous and analogous organ in various plants and animals.
	Human health and disease	To study and identify common disease causing organism like Ascaris, Entamoeba, Plasmodium, ringworm through permanent slides or specimens.comment on symptoms they cause.
July	Microbes in human welfare	To study the symbolic association in root nodules of leguminous plants , Cuscuta on host and

		lichens through models and specimen.
	Biotechnology : Principle and Processes.	To isolate DNA from plant Tissues like papaya, pea seeds, spinach ,etc.
	Biotechnology and its application.	
August	Organism and Populations	To study population density by quadrat method
		To study population frequency by quadrat method
	Ecosystem	To study the presence of particulate in matter in air.
		To study water sample from different water bodies and study different organisms found in it.
September	Biodiversity and Conservation	Group presentation on the topics in the chapter.
	Sexual reproduction on flowering plants.	To study the pollen germination on a slide in a nutrient medium.
		To perform the exercise on controlled pollination- emasculation, tagging and bagging.
		To study the flowers adapted to pollination by different agencies (wind, insect etc)
October	Human Reproduction	To study the various stages of mitosis and meiosis in onion root tip and grasshopper larva

	Reproductive Health	from permanent slides. To study T.S of blastula through permanent slide. To study and identify stages of gamete development from T.S of testis and T.S of ovary through permanent slide.
November till First week	Start revision of chapters	

Computer Science		
Month	Chapters and Topic Covered	Practical/Activities
April	Ch-1 and 2Python Revision Tour-Iand II:-Revision of all importanttopics(string, list, tuplesfunctions)Ch-3Working with Functions:-Defining functions inPython, Understanding theconcept of parameters,Returning values fromfunctions, Scope ofvariableCh-4Using Python Libraries:-Understanding library andmodules, Importingmodules, Using Pythonstandard library'sfunctions and modules,	Practical activities related Ch-1 and 2 Programs showing the use of functions. Creation of library and their usage in other programs

	Creating your own Python Library	
Мау	<u>Ch-5</u> File Handling:- Data Files, Opening and closing files, working with text files, Standard input, output and error streams, Working with binary files, Working with CSV files <u>Ch-7</u> Idea of Algorithmic efficiency:- Introduction, What is computational complexity, Estimating complexity of algorithms	Group activity based on creation of a file based on real life example
July	Ch-6Recursion:-Introduction, Recursivefunction, how recursionworks, recursion inPython, Recursion vsiterationCh-8Data Structures - LinearLists:-Introduction, ElementaryData Representation,Different Data Structures,Operations on Datastructures, Linear list,linear list data structure,Nested / 2-dimensional liston PythonCh-9Data Structures-II:-Introduction, Stacks,Queues	Practical programs to be completed on an individual basis
August	<u>Ch-10</u> Computer Networks-I:- Introduction, Computer Networks, Types of networks, Evolution of	Models based on types of networks and Powerpoint presentation

	networking, switching techniques, Data communication terminologies, Transmission Media, Network topologies <u>Ch-11</u> Computer Networks - II:- Introduction, Network Devices, Network Protocols, Wireless/ Mobile computing technologies, Internetworking terms and concepts, Network security concepts, Viruses	
September	<u>Ch-12</u> Relational Databases:- Introduction, purpose of DBMS, Relational database model, The relational model terminology, Brief history of MySQL, MySQL Database System, Starting MySQL, MySQL and SQL	Practical programs to be completed individually. Creation of tables in MySQL required for the project work in groups
	<u>Ch-13</u> Simple Queries in SQL:- Introduction, Some MySQL SQL elements, SQL command syntax, sample database, making simple queries, MySQL functions, Aggregate functions	
	<u>Ch-14</u> Table creation and Data Manipulation commands:- Introduction, Databases in MySQL, Creating tables, Changing data with DML commands, More DDL commands	
October	<u>Ch-15</u> Grouping records, joins in	

	SQL:- Introduction, Types of SQL functions, Grouping result - GROUP BY, JOINS	
	<u>Ch-16</u> Interface Python with MySQL:- Introduction, connecting to MySQL from Python, Parameterized Queries, Performing insert and update queries	
November till First week		Practical programs based on different concepts to be covered.

Economics		
Month	Chapters and Topic Covered	Practical/Activities
April	Unit 1 of Macro CH 1: Circular Flow of Income CH 2: Basic Concepts of Macroeconomics CH 3: National Income and Related Aggregates CH 4: Measurement of National Income	NCERT Questions Topics will be discussed for Practical Project Students will be asked to collect information relevant to their topic and submit a hard copy of the same

	Unit 1 of IED CH 1: Indian Economy on the Eve of Independence	
Мау	Unit 2 of Macro CH 5: Money CH 6: Banking- Commercial Banks and the Central Bank Unit 1 of IED CH 2: Indian Economy (1950-1990)	
July	Unit 3 of Macro CH 7: Aggregate Demand and Related Concepts CH 8: Income Determination and Multiplier Unit 1 of IED CH 3: Liberalisation, Privatisation and Globalisation: An Appraisal	Project written part to be completed completely
August	Unit 3 of Macro CH 9: Excess Demand	Review: Students will work on presentation part and make the file

	and Deficient Demand	
	Unit 2 of IED	
	CH 4: Human Capital Formation	
	CH 5: Rural Development	
September	Unit 4 of Macro	
	CH 10: Government Budget and the Economy	
	Unit 2 of IED	
	CH 6: Employment- Growth, Informalisation and Other Issues	
October	Unit 5 of Macro	Files to be submitted for correction AIL- PPT to be made based on the topic of
	Rate	the Project
	Unit 2 of IED	
	CH 7: Environment and Sustainable Development	
November till First week	Unit 5 of Macro	
	CH 12: Balance of Payments	
	Unit 3 of IED	
	CH 8: Comparative Development Experience	

of India and its Neighbours	

Informatics Practices			
Month	Chapters and Topic Covered	Practical/Activities	
April	Ch-1 Python Pandas - 1:- Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and Data Frames. <u>Ch-2</u> Python Pandas - 2:- Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Head and Tail functions; Selection, Indexing and Slicing.	Creation of data structures using pandas and numpy library of Python	
Мау	Data Frames: creation - from dictionary of Series, list of dictionaries, <u>Ch-3</u> Plotting with PyPlot:- Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram Customizing plots: adding label, title, and legend in plots	Data visualization, by using Matplotlib library of Python. Completing all the practical programs based on Pyplot	
July	<u>Ch-4</u> Importing / exporting data between CSV files / MySQL and Pandas:- Text/CSV files; display; iteration; Operations on rows and columns: add,	Group activity to be conducted to visualize data based on real life example. Practical programs based on text files to be completed	

	select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing; Importing/Exporting Data between CSV files and Data Frames	
August	<u>Ch-5</u> MySQL SQL Revision Tour :- Revision of database concepts and SQL commands covered in class XI Math functions: POWER (), ROUND (), MOD ().	Practical programs based on databases.
	<u>Ch-6</u> MySQL functions Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). <u>Ch-7</u> Querying using SQL:- Querying and manipulating data using Group by, Having, Order by. <u>Ch-8</u> Joins and set operations:- Working with two tables using equi-join	Creating tables that can be used for the project
September	<u>Ch-9</u> Introduction to networks, Types of network: PAN, LAN, MAN, WAN.	Creation of models and related powerpoint presentation

	Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh. <u>Ch-10</u> Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.	
October	<u>Ch-11</u> Societal Impacts Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS) <u>Ch-12</u> Data protection cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste: hazards and management. Awareness about health concerns related to the usage of technology	Class activity:- poster making to be conducted on the concerned topics
November till First week	Completion of final project	

Month	Chapters and Topic Covered	Practical/Activities
April	Chapter -1 Variations in psychological attrbutes	practical 1 RSPM
Мау	Chapter -2 Self and Personality Chapter-3 Meeting life challenges	Practical 2 self concept questionnaire
July	Chapter -4 psychological disorders	
August	Chapter -5 therapeutic approaches	
September	chapter-6 Attitude and social cognition	practical -3 sodhi attitude scale Practical -4 bells adjustment inventory
October	chapter -7 Social influence and group processes	Case Profile
November till First week		

Physical Education		
Month	Chapters and Topic Covered	Practical/Activities
April	CHAPTER-1 MANAGEMENT OF SPORTINGS EVENTS • FUNCTIONS OF SPORTS EVENTS MANAGEMENT • VARIOUS COMMITTEES AND THEIR RESPONSIBILITIES • FIXTURES AND ITS PROCEDURE - KNOCK OUT AND LEAGUE	Topics will be discussed for Practical Project CYCLE TEST 1
May	CHAPTER-2 CHILDREN AND WOMEN IN SPORTS • Common postural deformities • Special consideration	

	• Female athletes triad	
July	CHAPTER-3 YOGA AS PREVENTIVE MEASURES FOR LIFESTYLE DISEASE • OBESITY • DIABETES • ASTHMA • HYPER TESNSION CHAPTER-6 TEST & MEASUREMENT IN SPORTS • FITNESS TEST • COMPUTING BASAL METABOLIC RATE • RIKLI AND JONES SENIOR CITIZEN FITNESS TEST	PERIODIC TEST 1
August	CHAPTER-7 PHYSIOLOGY AND INJURIES IN SPORTS PHYSIOLOGICAL FACTORS DETERMINING COMPONENTS OF PHYSICAL FITNESS EFFECT OF EXERCISE ON MUSCULAR SYSTEM EFFECT OF EXERCISE ON RESPIRATORY SYSTEM SPORTS INJURIES	
September	CHAPTER-8 BIOMECHANICS AND SPORTS • NEWTONS LAW OF MOTION AND THEIR APPLICATION IN SPORTS • EQUILIBRIUM- DYNAMIC AND STATIC AND CENTER OF GRAVITY AND ITS APPLICATION IN SPORTS • FRICTION AND SPORTS • PROCJECTILE IN SPORTS	
October	CHAPTER-9 PSYCHOLOGY AND SPORTS • PERSONALITY	

	 AGGRESSION PSYCHOLOGICAL ATTRIBUTES IN SPORTS 	
November till First week	CHAPTER-10 TRAINING IN SPORTS CONCEPT OF TALENT IDENTIFICATION AND TALENT DEVELOPMENT IN SPORTS INTRODUCTION TO SPORTS TRAINING CYCLE TYPES AND METHODS TO DEVELOP- STRENGTH ,ENDURANCE, & SPEED TYPES AND METHODS TO DEVELOP - FLEXIBILITY AND COORDINATIVE ABILITY	