KLE ENGLISH MEDIUM SCHOOL

JULE SOLAPUR

GRADE- XII SYLLABUS SPLIT 2022-23

SUBJECT: ENGLISH

TERM-I

Sr. No	Month	Unit / Sub-Unit	Values	Project/ Activity
1	April	**Flamingo :**		
		L-1 : The Last Lesson	Patriotism, resistence, importance of culture and love for language	
		L -2 : Lost Spring	Awareness about child labour, impact of tradition and blind belief ,stop corruption	
		1.My Mother ar Sixty Six (Poem)	Connecting with real life experiences, love and care for mother	
		2.An Elementary School Classroom in a slum (	Importance of Primary Educaion, Need to reduce descriminationa and poverty from society.	
		3.Keeping Quiet (Poem)		
		Vistas:		
		L-1: The Third Lvel	Impact of wars and insecurity need to reduce, importance of harmony and peace in society	
2	June	**Writing Skil**l: 1. Letter (Application for job with resume and letter Editor)	Use of official and formal language, politeness, Curiosity, Social Awareness, Use of appropriate Formats. Expression of thoughts in precise manner.	Letter writing in given format
		2.Notice	Organisation of ideas , content and accuracy of spelling and grammar.	Notice writnting in format
		Flamingo :		
		L-3 Deep Water	Will power, Determination, Drawing inspiration from the real life examples to help the learners to deal with emotions psychologically	Write an article We do not inherit the earth from our ancestors, we borrow it from our children.
		Vistas:		
		L-2: The Tiger King	Education can give them a better status, Courage and positive outlook	
3	July	**Writing Skill**: Formal / Informal Invitation and reply	Organisation of ideas , use of approprite format, Expression of thoughts	Writing informal and formal invitaions
		Flamingo :		
		L-4: The Rattrap	Affection , Belief , Cheating, Fraud, honesty,threatening, presence of mind, humanity	Replies to invitations
		Vistas:		
		L-3 : Journey to the End of the Earth	Humanity, appreciationa and compassion for the environment	
4	August	**Writing Skill:** Article Writing	Expression of knowledged, ideas,experience and opinion	Article writing
		Flamingo :		
		L-5: Indigo	Euality, brotherhood, liberty and fight against injustice	
		Vistas:		
		L-4:The Enemy	patriotism, honesty, resistence, importance of culture and love for language	
5	September	**Flamingo :**		Art Integrated Project
		L-6: Poets and Pancakes	appreceation of humaour and satire	
		Poem 4: A Roadside Stand	simple life of village and luxurious life of cities	

6	October	**Revision of Term- 1**		
		TERM-II		
7	November	**Writing Skill:** Report writing	Investigation, evaluation , development of writing skills , professional advancement	Report Writing
		Flamingo: L-7: The Interview	Process of interview, merits and demerits of interview and attitude	
		Poem 5: Aunt Jennifier's Tigers	Freedom, equality, desire, courage	
8	December	**Vistas:**		Speaking and listening Skills Activity
		L-5: On the Face of it	Empathy, trust , openness ,strength and weaknesses	
		Flamingo		
		L-8: Going Places	Sophisticated, glamorous life, affection, beauty	
		Vistas:		
		L-6 : Memories of Childhood	Encouragement, nationalism, equality, justice and liberty	Letter to the Editor
9	January	Preliminary Exam - 1 & 2		
"	February	Preliminary Exam - 3		
"	March-April			

KLE ENGLISH MEDIUM SCHOOL

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GRADE- XII SYLLABUS SPLIT 2022-23

SUBJECT: PHYSICS

FIRST TERM SYLLABUS SPLIT

Sr.No	Month	Unit/Subunit	Values	Activities/Projects	Examination
1	JUNE	**Unit I: Electrostatics** **Chapter–1: Electric Charges and Fields** Electric charges, Conservation of charge, Coulomb's law-force between twopoint 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 field due to a dipole, torque on a dipole in uniform electric field	The students should have scientific temper	Showing like charges and unlike charges properties by using magnets and glass rod.	PERIODIC TEST-I
2	JULY	**Unit II: Current Electricity** **Chapter–3: Current Electricity** Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge. **Unit III: Magnetic Effects of Current and Magnetism.** **Chapter–4: Moving Charges and Magnetism** Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil	The students should have scientific temper	Lab activity-to study voltage and current characteristics of ohms law	**Periodic Test-2**
3	AUGUST	**Chapter–5: Magnetism and Matter** Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties. **Unit IV: Electromagnetic Induction and Alternating Currents.** **Chapter–6: Electromagnetic Induction** Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction	The students should have scientific temper	Demonstrating the magnetic strength experinment.concept of Earth's magnetic field by Tangent Galvanometer.	**Periodic Test-3**
4	SEPTEMBER	**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. **Unit V: Electromagnetic waves.** **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. **Unit VI: Optics.** **Chapter–9: Ray Optics and Optical Instruments** Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, 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.	The students should have scientific temper	Project-construction of electromagnetic induction experinment	**Periodic Test-4**

5	**OCTOBER**	**REVISION**			
6	**NOVEMBER**	**Chapter–10: Wave Optics** Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's 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). **Unit VII: Dual Nature of Radiation and Matter** **Chapter–11: Dual Nature of Radiation and Matter** Dual nature of radiation, Photoelectric effect, Hertz and 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.	The students should have scientific temper	Finding colour coding of different resistors. Lab activity-AC and DC generator wave forms study	periodic test-5
7	**DECEMBER**	**Unit VIII: Atoms and Nuclei** **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). **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. **Unit IX: Electronic Devices** **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.	The students should have scientific temper	Different types of diodes identification and studying there difference of flow of current by using graphs.	**Periodic Test-6**

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GRADE- XII SYLLABUS SPLIT 2022-23

SUBJECT: Chemistry

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/PROJECT	EXAM
1	**APRIL & JUNE (15 PERIODS)**	**Unit II: 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 freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.	To develop the scientific and mathematical skills	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 1 & MIDTERM EXAMINATION
2	**JUNE & JULY (18 Periods)**	**R**edox 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,	To develop scientific skills disciplinary value ,		PERIODIC TEST 1& MIDTERM EXAMINATION
3	**JULY & AUGUST (15 PERIODS)**	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	Develops Scientific skills		PERIODIC TEST 2 & MIDTERM EXAMINATION
4	**AUGUST SEPTEMBER (18 Periods)**	General introduction, 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	Develops social value, disciplinary value	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 2 & MIDTERM EXAMINATION
5	**SEPTEMBER & OCTOBER (18 PERIODS+ 15 PERIODS+ 14 PERIODS)**	**Unit IX: Coordination Compounds 18 Periods** 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, the importance of coordination compounds (in qualitative analysis, extraction of metals and biological **system).**	expose the students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	MIDTERM EXAMINATION
6 & 7			Develops concentration & scientific skills		PERIODIC TEST
	OCTOBER	**REVISION OF MIDTERM EXAMINATION**			UNIT II,III,IV& VIII , IX & X FOR MIDTERM
8	**NOVEMBER(15 PERIODS)**	**UNIT XII Aldehydes, Ketones and Carboxylic Acids** Aldehydes 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	Develops concentration skills,attention and social values	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST
9	**NOVEMBER & DECEMBER(14 Periods)**	**Unit XIII: 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	Skills of handelling instruments and accuracy. Develops concentration skills	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST
10	**DECEMBER,(18 Periods)**	**Unit XIV: Biomolecules** Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins	expose the students to different processes used in industries and their technological Skills of and accuracy. Develops concentration skills	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST

KLE ENGLISH MEDIUM SCHOOL

JULE SOLAPUR

GRADE- XII SYLLABUS SPLIT 2022-23

XII- BIOLOGY

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/PROJECT	EXAM
1	APRIL (08 Periods)	**UNIT VI:Reproduction** **Chapter-2: Sexual Reproduction in Flowering Plants** Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo , development of seed and formation of fruit special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation	To develop scientific skills, disciplinary value	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 1 & MIDTERM EXAMINATION
2	APRIL (08 Periods)	**Chapter-3: Human Reproduction** Male and female reproductive systems microscopic anatomy of testis and ovary gametogenesis -spermatogenesis and oogenesis,menstrual cycle fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation parturition, lactation	Develops social value, disciplinary value		PERIODIC TEST 1 & MIDTERM EXAMINATION
3	APRIL &JUNE (10 Periods)	**Chapter-4: Reproductive Health** Need for reproductive health and prevention of STDs birth control - need and methods contraception and medical termination of pregnancy (MTP) amniocentesis; infertility and assisted reproductive technologies like IVF, ZIFT, GIFT	Develops social value, disciplinary value		PERIODIC TEST 2 & MIDTERM EXAMINATION
4	JUNE (10 Periods)	**Unit-VII Genetics and Evolution** **Chapter-5: Principles of Inheritance and Variation** Heredity and variation: Mendelian inheritance deviations from Mendelism – incomplete dominance co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance chromosome theory of inheritance; chromosomes and genes Sex determination - in humans, birds and honey bee linkage and crossing over; sex linked inheritance - haemophilia, colour blindness,Mendelian disorders in humans - thalassemia chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes	To develop scientific skills, disciplinary value	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 2 & MIDTERM EXAMINATION
5	JULY(12 Periods)	**Chapter-6: Molecular Basis of Inheritance** Search for genetic material and DNA as genetic material Structure of DNA and RNA; DNA packaging,DNA replication Central Dogma; transcription, genetic code, translation gene 8 expression and regulation - lac operon,Genome, Human and rice genome projects; DNA fingerprinting	To develop scientific skills,		PERIODIC TEST 3 & MIDTERM EXAMINATION
6	JULY(12 Periods)	**Chapter-7: Evolution** Origin of life; biological evolution and evidences for biological evolution(paleontology,comparative anatomy, embryology and molecu evidencesDarwin's contribution, modern synthetic theory of evolution mechanism of evolutionn - variation (mutation and recombination) natural selection with examples, types of natural selection Gene flow and genetic drift; Hardy - Weinberg's principle adaptive radiation; human evolution.	To develop scientific skills, disciplinary value		PERIODIC TEST 3 & MIDTERM EXAMINATION
7	SEPTEMBER(15Periods)	**Unit-VIII Biology and Human Welfare** **Chapter-8: Human Health and Diseases** Pathogens; parasites causing human diseases(malaria,dengue,amoebia chikungunya,filariasis,ascariasis,typhoid, pneumonia,common cold,rin and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse	To develop scientific skills, disciplinary value	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 4
8	SEPTEMBER(12Periods)	**Chapter-10: Microbes in Human Welfare** Microbes in food processing, industrial production, sewage treatment, energy generation andmicrobes as bio-control agen and bio-fertilizers. Antibiotics; production and judicious use	To develop scientific skills, disciplinary value		PERIODIC TEST 4
9	OCTOBER	REVISION			MID TERM EXAM

10	NOVERMBER(08 Periods)	**Unit-IX Biotechnology and its Applications** **Chapter-11: Biotechnology - Principles and Processes** Genetic Engineering (Recombinant DNA Technology)	To develop scientific skills,	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 5
11	NOVERMBER(08 Periods)	**Chapter-12: Biotechnology and its Applications** Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms- Bt crops; transgenicanimals; biosafety issues, biopiracy and patents	To make aware about environmental issues, problems and their appropriate		
12	NOVERMBER(08 Periods)	**Unit-X Ecology and Environment** **Chapter-13: Organisms and Populations** Population interactions - mutualism, competition, predation, parasitism population attributes - growth, birth rate and death rate, age distributi	To make aware about environmental issues, problems	LAB PRACTICALS/ACTIVITIES &PROJECTS AS PRESCRIBED BY CBSE BOARD	PERIODIC TEST 6
12	DECEMBER(0 8 Periods)	**Chapter-14: Ecosystem** Ecosystems: Patterns, components; productivity and decomposition energy flow; pyramids of number, biomass, energy	To develop scientific attitude towards issues		
13	DECEMBER(0 8 Periods)	**Chapter-15: Biodiversity and its Conservation** Biodiversity-Concept, patterns, importance; loss of biodiversity biodiversity conservation; hotspots, endangered organisms, extinction Red Data Book, Sacred Groves, biosphere reserves national parks, wildlife, sanctuaries and Ramsar sites	enhance awareness about environmental issues, problems and their appropriate		PERIODIC TEST 6

KLE ENGLISH MEDIUM SCHOOL

JULE SOLAPUR

GRADE- XII SYLLABUS SPLIT 2022-23

XII- MATHEMATICS

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/PROJECT	EXAM
1	**April**	**Relations and Functions**	o develop disciplinary valu	Work sheet/Assignment	Periodic Test-1
	14 p	Types of relations			
		Types of functions			
		Composition of Functionsand invertible functions			
		Binary operations			
2	**April**	**Matrices**	Develops social value, disciplinary value	Work sheet/Assignment	Periodic Test-1
	10:00 PM	Matrix			
		Types of Matrices			
		Operations on Matrices			
		Transpose of a matrix			
		Symmetric and skew symmetric Matrices			
		Elementary operation of a matrix			
		invertible matrices			
3	**June**	**Determinants**	Develops social value, disciplinary value	Work sheet/Assignment	Periodic Test-2
	10	Determinants			
		Properties of determinants			
		Area of a triangle			
		Minors and Cofactors			
		Adjoint and Inverse of a matrix			
		Applications of Determinats and Matric			
4	**June/ July**	**Inverse Trigonometric functions**	Skills of handelling instruments and accuracy. Develops concentration skills	Work sheet/Assignment	Periodic Test-2
		Basic concepts			
	9	Properties of inverse trigonometric functions			
5	**July**	**Continuity and Differentiability**	Develops concentration skills,attention and social values	Work sheet/Assignment	Periodic Test-3
	9	Continuity			
		Differtiability			
		Exponential and Logarithmic functons			
		Logarithmic Differentiation			
		Derivatives of functions in parametric forms			
		Second order derivatives			
		Mean value theorem			
6	**July/August**	**Application of Derivatives**	Develops concentration skills	Work sheet/Assignment	Periodic Test-3
	10	Rate of change of quantities			
		Increasing and decreasing functions			
		Tangents and Normals			
		Approximations			
		Maxima and Minima			
7	**August**	**Integration as an inverse process of differentiation**	Develops concentration skills	Work sheet/Assignment	Periodic Test-4
	18	Methods of integration			
		Integrals of some particular functions			
		Integration of Partial Fractions			
		Definite Integral			
		Fundamental Theorem of Calculas			
		Evaluation of Definite Integrals by substitution			
		Some properties of Definite Integrals			
8	**September**	**Applications of Integrals**	Develops concentration skills	Work sheet/Assignment	Periodic Test-4
	10	Area under Simple curves			
		Area between Two curves			

TERM-II

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/PROJECT	EXAM
9	**November**	**Differential Equations**	Develops concentration skills. Develops recreational values	Work sheet/Assignment	Periodic Test-5
	12	Basic concepts			
		General and particular Solutions of a Differential equation			
		Formation of a Differential Equation whose General Solution is given			
		Methods of Solving First order , First degree Differential Equations			
10	**November**	**Vector Algebra**	Develops concentration skills. Develops recreational values	Work sheet/Assignment	Periodic Test-5
	12	Some basic concepts			
		Types of vectors			
		Addition of Vectors			
		Multiplication of a vector by a scalar			
		Product of 2 vectors			
11	**December**	**Three dimensional geometry**	Develops concentration skills. Develops recreational values	Work sheet/Assignment	Periodic Test-6
	8	Direction of cosines and Direction Ratios of a line			
		Equation of a line in Space			
		Angle between Two lines			
		Shortest distance between 2 lines			
		Plane			
		Coplanarity of 2 lines			
		Angle between 2 Planes			
		Distance of a point from a plane			
		Angle between a line and a plane			
12	**December**	**Linear programming**	Develops concentration skills	Work sheet/Assignment	Periodic Test-6
	9	Linear programming problem and its Mathematical Formulation			
		Different types of Linear programming			
13	**December**	**Probability**	Develops concentration skills and logical thinking	Work sheet/Assignment	
	30	Conditional Probability			
		Multiplication theorem on probability			
		Independent Events			
		Baye's Theorem			
		Random variables and it's probability D			
		Bermoulli trials and Binomial distributi			

KLE ENGLISH MEDIUM SCHOOL
JULE SOLAPUR, SOLAPUR
SYLLABUS SPLIT (2022 - 23)
XII- COMPUTER SCIENCE

TERM-II					
SR. NO	**MONTH**	**UNIT / SUBUNIT**	**VALUES**	**ACTIVITY/PROJECT**	**EXAM**
1	**April**	**Review of Python Basics** Python tour 1 covered in Class XI	Develops IT skills	Lab activities	
2	**June**	**Review of Python Basics** Python tour 2 covered in Class XI	Develops IT skills Develops Problem solving skill Develops Pragramming skill	Lab activities	
3	**July**	**Functions** • Functions: types of function (built-in functions, functions defined in module, user defined functions) • Creating user-defined function • Arguments and parameters, default parameters, positional parameters • Function returning value(s) • Flow of execution • Scope of a variable (global scope, local scope)	Develops Problem solving skill Develops Pragramming skill	Lab activities	
4	**August**	**Data File Handling** • Introduction to files • Text file • Binary file • CSV file **Program Efficiency**	Develops Pragramming skill	Lab activities	
5	**September**	**Data Structures in Python** **S**tack: Operations on stack (push & pop), implementation of stack using list. **Computer Networks** • Evolution of networking • Data communication terminologies • Transmission media • Network devices • Network topologies and Network types • Network protocol • Introduction to web services	Develops IT skills	Lab activities	
6	**October**	**Revision**			

TERM-II					
SR. NO	**MONTH**	**UNIT / SUBUNIT**	**VALUES**	**ACTIVITY/PROJECT**	**EXAM**
7	**November**	**Relational Database and SQL** • Database concepts • Relational data model • Structured Query Language • Data type • Constraints • Create, use, show, drop database, show & create table • Aggregate functions • Group by, having clause • Joins	Develops IT skills Develops Problem solving skill Develops Pragramming skill	Lab activities	
8	**December**	**Interface Python with SQL** • Interface of python with an SQL database: connecting SQL with Python • Performing insert, update, delete queries using cursor, display data by using fetchone(), fetchall(), rowcount • Creating database connectivity applications	Develops IT skills Develops Problem solving skill Develops Pragramming skill	Lab activities	

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GRADE- XII SYLLABUS SPLIT 2022-23

XII- Physical Education

SR. NO	MONTH	UNIT / SUBUNIT	VALUES	ACTIVITY/PROJECT	EXAM
1	June	**Management of Sporting Events** Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Various Committees & their Responsibilities (pre; during & post) Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase & Cy	To develop management skill		
2	**July**	**Children & Women in Sports** Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures Special consideration (Menarche & Menstrual Dysfunction) Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders) **Yoga as Preventive measure for Lifestyle Disease** Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama. Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana,Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.	arn preventive measures for lifestyle di	Fitness Test	
3	**August**	**Yoga as Preventive measure for Lifestyle Disease** Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalbhati, Gomukhasana Matsyaasana, Anuloma-Viloma. Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakransan, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-shodhanapranayam, Sitlipranayam. **Physical Education & Sports for CWSN (Children with Special Needs - *Divyang*** Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflym Advantages of Physical Activities for children with special needs. Strategies to make Physical Activities assessable for children with special needs.	ntive measures for lifestyle disease for s	Yoga Activities	
4	**September**	**Sports & Nutrition** Concept of balance diet and nutrition Macro and Micro Nutrients: Food sources & functions Nutritive & Non-Nutritive Components of Diet **Test & Measurement in Sports** Fitness Test – SAI Khelo India Fitness Test in school: Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach Computing Basal Metabolic Rate (BMR) Rikli & Jones - Senior Citizen Fitness Test I. Chair Stand Test for lower body strength II. Arm Curl Test for upper body strength III. Chair Sit & Reach Test for lower body flexibility IV. Back Scratch Test for upper body flexibility V. Eight Foot Up & Go Test for agility VI. Six Minute Walk Test for Aerobic Endurance	Develops knowledge about nutrition	Project on test and measurement	
5	**October**	**Revision**			
10	**November**	**Physiology & Injuries in Sports** Physiological factors determining components of physical fitness Effect of exercise on Muscular System Effect of exercise on Cardio-Respiratory System Sports injuries: Classification (Soft Tissue Injuries -Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted) **Biomechanics & Sports** Newton's Law of Motion & its application in sports Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports Friction & Sports Projectile in Sports	Develops knowledge about injuries in sports		
11	**December**	**Psychology & Sports** Personality; its definition & types (Jung Classification & Big Five Theory) Meaning, Concept & Types of Aggressions in Sports Psychological Attributes in Sports – Self Esteem, Mental Imagery, Self Talk, Goal Se **Training in Sports** Concept of Talent Identification and Talent Development in Sports Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle. Types & Method to Develop – Strength, Endurance and Speed Types & Method to Develop – Flexibility and Coordinative Ability	Develops knowledge about sports psychology		