CARMEL CONVENT SCHOOL
Affiliated to CBSE, New Delhi, Aff. No.730203

SYLLABUS FOR 2024-25
Class:- XII

CLASS	XII	BOOK	FLAMINGO VISTAS
SUBJECT	ENGLISH		
MONTH	PROSE	POEM	GRAMMAR
APRIL	The Last Lesson (Alphonse Daudet) The Third Level (Jack Finney)	My Mother At Sixty Six (Kamla Das)	Formal & Informal Invitations
May-June	The Lost Spring (Anees Jung) The Tiger King (Kalki)	Keeing Quiert (Pablo Neruda)	Advertisement Letter Writing (Business letters)
July-Aug	Deep Water (William Douglas) Journey To The End Of The Earth (Tishani Doshir)	Aunt Jennifer's Tiger (Adrienne Rich)	Resume with Job Application
SEPTEMBER	Going Places (A.R. Barton) REVISION TERM 1 EXAMS	REVISION TERM 1 EXAMS	REVISION TERM 1 EXAM
OCTOBER	Poets And Pancakes (Louis Fischer & Stephen Spender) Memories of My Childhood (Zitkala Sa and Bama)	A Thing Of Beauty (John Keats)	Article Writing
NOVEMBER	The Enemy (Pearl S. Buck) Indigo (Louis Fischer) The Interview (Christopher Silvester)	A Roadside Stand (Robert Frost)	Debate Speech
DECEMBER	PRE -BOARD 1		
JANUARY	PRE-BOARD 2		

Principal
Carmel Convent School
Kunjwani, Jammu

SYLLABUS FOR 2024-25
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CLASS	XII		BOOK	
SUBJECT	PHYSICS		PUBLISHER	NCERT

MONTH	Unit	LESSON	SUB TOPIC	No. of Periods	Weigh tage
April	1	Electrost atics (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. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside)	26	8
May	1	Electrost atics (Electrost atic Potential and Capacita nce)	Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only)		

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	2	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.	18	7
July	3	Magnetic Effects of Current and Magnetism	**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 galvanometerits current sensitivity and conversion to ammeter and voltmeter	25	8

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July			**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		
August	4 &5	Electromagnetic Induction and Alternating Currents Electromagnetic waves	**Electromagnetic Induction** Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction. **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 *****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.	28	8+3

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CLASS	XII	BOOK	NCERT TEXTBOOK
SUBJECT	CHEMISTRY	PUBLISHER	NCERT

TERM-1

MONTH	LESSON	TOPIC / SUB TOPIC	No of periods	Weight age
April	CH-1 Solution	Solution 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.	10	7
May	CH-2 Electrochemistry CH-3 Chemical kinetics	Electrochemistry : 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, corrosion. 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 Arrhenius equation.	22	14

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July and August	CH- 6 Haloalkanes and Haloarenes CH-9 Amines	Haloalkanes: 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). Ch-9 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.	20	12
September	CH - 7 Alcohol Phenol and Ethers CH-10 Biomolecules	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. Ether - Preparation, nomenclature,and chemical reactions . Biomolecules. Carbohydrates - Classification (aldoses and ketoses), monosaccahrides (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, 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.	22	13

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Month	Chapter	Content		
October	CH-8 Aldehyde ,Ketone and carboxylic acid	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 acid Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties.	10	8
November	CH-5 Coordination Compounds CH-4 D&F Block	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 D&F Block Lanthanoids - Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids	24	14
December	Revision	Revision		

SYLLABUS FOR 2024-25
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CLASS	XII	BOOK	TEXT BOOK OF BIOLOGY
SUBJECT	BIOLOGY	PUBLISHER	NCERT

TERM-1

MONTH	LESSON/ CHAPTER	TOPIC / SUB TOPIC	NUMBER OF PERIODS	WEIGHT AGE
MARCH-APRIL	1. Reproduction	**Chapter-1: 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. 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. **Chapter-2: Human Reproduction:** Male and female reproductive systems' microscopic anatomy of testis and ovary; gametogenesis- spermatogenesis and oogenesis; enstrual cycle; fertilization, embryo development upto blastocyst formation, implantation; pregnancy and aplacenta formation (elementary idea); lactation (elementary idea) **Chapter-3: Reproductive Health:** Need for reproductive health and prevention of sexually Transmitted Diseases (STDs); birth control – need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies- IVF, ZIFT, GIFT (elementry idea for general awareness)	30	14

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MAY JULY-AUGUST	2.Genetics and Evolution	**Chapter-4: Principals of Inheritance and Variation:** Heredity and variation: Mendelian inheritance; deviations from Mendelism- incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; pleitropy; elementary idea of plygenic inheritance; chromosome theory of injeritance; chromosomes and genes; sex determination – in humans, birds and honey bee; linkage and crossing over; sex linked inheritance- haemophilia, colour blindness; Mandelian disorders in humans- thelassemia; chromosomal disorder in humans, down's syndrome. Turner's and Klinefelter's syndromes.	40	18
		Chapter-5:Molecular Basis of Inheritance: Search for genertic material and DNA as genetic material; structure of DNA and RNA; DNA packaging, DNA replication; central dogma; transcription, genetic code, translation; gene expression and regulation lac operon genome and human and rice genome projects; DNA fingerprinting		
		Chapter-6: Evolution: Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences; Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution- variation mutation and recombination and natural selection with examples, types of natural selecction; gene flow and genetic drift; hardy – Weinberg's principle; adaptive radiation; human evolution.		
SEPTEMBER	3.Biotechnology	**Chapter: 7**Biotechnology- Principles and Processes: genetic engineering (Recombinant DNA Technology)	30	14
		Chapter:8 Biotechnology and Its Application: application of biotechnology in health and agriculture. Human insulin and vaccine production stem cell technology gene therapy; genetically modified organisms- bt crops trangnic animals; biosafety issues bio piracy and patents		

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CLASS	XII	BOOK	MATHEMATICS
SUBJECT	MATHEMATICS	PUBLISHER	NCERT

Month	Units	Topic	Sub-topic	Marks	Period
April	Relation and Functions	Relation and function	Types of Relations: Reflexive, symmetric, transitive and equivalence relations. One to one and onto functions, composite functions, inverse of function. Binary operations.	08	20
		Inverse trigonometric functions	Definition, range, domain, principal value branches. Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric function		10
May	Algebra	Matrices	Concept, notation, order, equality, types of matrices, zero matrix, transpose of a matrix, symmetric and skew symmetric matrices. Addition, multiplication and scalar multiplication of matrices, simple properties of addition, multiplication and scalar multiplication. Non – commutativity of multiplication of matrices and existence of non - zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).	10	15
		Determinants	Determinant of a square matrix (up to 3 x 3 matrices) , properties of determinants, minors, cofactors and applications of determinants in finding the area of a triangle, Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.		25

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June	Calculus	Continuity and Differentiability	Continuity and differentiability, derivative of composite functions, chain rule, derivatives of inverse trigonometric functions, derivate of implicit functions. Concept of exponential and logarithmic functions and their derivaties. Logarithmic differentiation. Logarithmic differentiation, Derivative of functions expressed in parametric forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric interpretations and simple applications.	35	15
July		Application of derivatives	rate of change, increasing / decreasing functions, tangents &normals, approximation, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).		15
August		Integrals	Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, only simple integrals of the type to be evaluated. Definite integrals as a limit of a sum, Fundamental Theorem of Calculus (without proof), Basic properties of definite integrals and evaluation of definite integrals.		30
		Application of Integration	Applications in finding the area under simple curves, especially lines, area of circles / parabolas / ellipses (in standard form only), area between the two above said curves.		10

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September		Differential Equations	Definition, order and degree, general and particular solutions of a differential equation.Formation of differential equation whose general solution is given.Solution of differential equations by method of separation of variables, homogeneous differential equations of first order and first degree.		10
October	Vectors and Three Dimension Geometry	Vector	Vectors and scalars, magnitude and direction of a vector. Direction cosines / ratios of vectors. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Scalar (dot) product of vectors, projection of a vector on a line. Vector (cross) product of vectors.	14	15
		Three Dimensional Geometry	Direction cosines / ratios of a line joining two points. Cartesian and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Angle between (i) two lines (ii) two planes (iii) a line and a plane. Distance of a point from a plane		15
November	Linear Programming and Probability	Linear programming	Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P) problems, mathematical formulation of L.P. problems, graphical method of solution for problems in two variables, feasible and infeasible regions, feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).	05	20
		Probability	Multiplication theorem on probability. Conditional probability, independent events, total probability. Baye's Theorem, Random variable and its probability distribution, mean and variance of random variable. Repeated independent (Bernoulli) trials and Binomial distribution.	08	30

<p style="text-align:center">**SYLLABUS FOR 2024-25**
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CLASS	XII	BOOK	PSYCHOLGY (SUBJECT CODE -037)
SUBJECT	PSYCHOLOGY	PUBLISHER	NCERT

Month	Units	Topic	No of Periods	Marks
TERM1				
April	UnitI VariationsinPsychological Attributes	1. Introduction 2. IndividualDifferencesinHumanFunctioning 3. AssessmentofPsychologicalAttributes 4. Intelligence 5. PsychometricTheoriesofIntelligence,InformationProcessing Theory:Planning, Attention-arousal andSimultaneoussuccessiveModelofIntelligence,TriarchicTheoryofIntelligence;TheoryofMultipleIntelligences. 6. IndividualDifferencesinIntelligence 7. CultureandIntelligence 8. EmotionalIntelligence 9. SpecialAbilities: Aptitude:NatureandMeasurement 10. Creativity	30 Periods	13
May	UnitII SelfandPersonality	1. Introduction 2. SelfandPersonality 3. ConceptofSelf 4. CognitiveandBehavioural aspectsofSelf	32 Periods	13
		5. CultureandSelf 6. ConceptofPersonality 7. MajorApproachestotheStudyofPersonality • TypeApproaches • TraitApproaches		

		• Psychodynamic Approach and Post FreudianApproaches • BehaviouralApproach • CulturalApproach • HumanisticApproach 8. AssessmentofPersonality • Self-reportMeasures • ProjectiveTechniques • BehaviouralAnalysis		
July	UnitIII MeetingLifeChallenges	1. Introduction 2. Nature,TypesandSourcesofStress 3. EffectsofStressonPsychologicalFunctioningandHealth • StressandHealth • GeneralAdaptationSyndrome • StressandImmuneSystem • Lifestyle 4. CopingwithStress • StressManagementTechniques 5. PromotingPositive Health andWell-being • LifeSkills • PositiveHealth	23 periods	9
August	UnitIV Psychological Disorders	1. Introduction 2. ConceptsofAbnormalityandPsychologicalDisorders • HistoricalBackground 3. ClassificationofPsychologicalDisorders 4. FactorsUnderlyingAbnormalBehaviour 5. MajorPsychologicalDisorders	30 Periods	12
		• AnxietyDisorders • Obsessive-CompulsiveandRelatedDisorders • Trauma-andStressor-RelatedDisorders • SomaticSymptomandRelatedDisorders • DissociativeDisorders • DepressiveDisorder • BipolarandRelatedDisorders		

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		• SchizophreniaSpectrum and Other PsychoticDisorders • NeurodevelopmentalDisorders • Disruptive,Impulse-ControlandConductDisorders • FeedingandEatingDisorders • SubstanceRelatedandAddictiveDisorders		
TERM-2				
September	UnitV Therapeuti cApproach es	1. NatureandProcessofpsychotherapy • Therapeuticrelationship 2. TypesofTherapies • BehaviourTherapy • CognitiveTherapy • Humanistic-ExistentialTherapy • AlternativeTherapies • FactorscontributingtohealinginPsychotherapy • EthicsinPsychotherapy 3. RehabilitationoftheMentallyIll	25 Period s	9
October	UnitVI Attitude andSocialC ognition	1. Introduction 2. ExplainingSocialBehaviour 3. NatureandComponentsofAttitudes 4. AttitudeFormationandChange • AttitudeFormation • AttitudeChange • Attitude-BehaviourRelationship 5. PrejudiceandDiscrimination 6. StrategiesforHandlingPrejudice	16 Period s	8
November	UnitVII SocialInfl uencean dGroupP rocesses	1. Introduction 2. NatureandFormationof Groups 3. TypeofGroups 4. Influenceof GrouponIndividualBehaviour • SocialLoafing • GroupPolarisation	14 Period s	6

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SUBJECT : LIFE SKILL AND CAREER COUNSELLING

MONTH	SESSION	ACTIVITY
April	Role of a counsellor *New Class New Challenges	"New life New dreams" Class discussion
May	*Adolescence *Behaviour choices *Emotional awareness and coping skills	Reforming myself" "My weakness are now my strengths" Making up a write up
July	*Friendship skills *Personal space *Conflict resolution	My life my priorities" Make your own personal space circle.
August	*listening skills *Communication Skills	Freedom of Expression Free writing or drawing Skills
September	*Academic skills and achievements *Test taking strategies *Examination Stress Management	"Best out of time" Make a Mind map of your study routine
November	*Bulling prevention and awareness *Body image	I love myself group discussion
December	*Personal safety *Tech Safety	Be safe act SMARTLY Making up a wheel of Safety
January	*Goal setting *Problem solving *Decision Making	Appreciating the difference *Mindfulness

CAREER COUNSELING

Month	Session
April	Introduction to career counseling
May	*Importance of Stream choices *Criteria for stream selection
July	*Careers in PCB *Careers in PCM *Careers in PCMB
August	*Careers in Humanities *Careers in Commerce

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September	Best practices for.... NEET JEE CLAT CUET
November	Career in sports Careers in Architecture Careers in PCB other than medicine
December	Careers in Hospitality and Tourism Careers in Defiance Careers in Aviation Careers in Mass Media and Communication
January	New age Careers

Special Session will also be conducted for the students depending upon their career choices

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CLASS	XII	BOOK	Essentials of Physical Education
SUBJECT	PHYSICAL EDUCATION	PUBLISHER	Sultan Chand

TERM-1

MONTH	CHAPTER /LESSON	TOPIC/SUB TOPIC	NO.OF PERIODS	WEIGHT AGE
April	1	**Management of Sporting Events** 1. Functions of Sports Events Management (Planning, Organising, Staffing,Directing & Controlling) 2. Various Committees & their Responsibilities (pre; during & post) 3. Fixtures and their Procedures – Knock-Out (Bye & Seeding)& League (Staircase,Cyclic, Tabular method) and Combination tournaments 4. Intramural & Extramural tournaments – Meaning, Objectives& Its Significance 5. Community sports program (Sports Day,Health Run, Run for Fun, Run for SpecificCause & Run for Unity)	15	5
April	2	**Children & Women inSports** 1. Exercise guidelines of WHO for different age groups. 2. Common posturaldeformities-knock knees, flat foot, roundshoulders, Lordosis, Kyphosis, Scoliosis,and bow legs andtheir respectivecorrective measures. 3. Women's participation in Sports – Physical, Psychological, and social benefits. 4. Special consideration (menarche and menstrual dysfunction) 5. Female athlete triad (osteoporosis, amenorrhea, eating disorder	12	07
May	3	**Yoga as Preventive measure for LifestyleDisease** 1. **Obesity:** Procedure,Benefits & Contraindications forTadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama. 2. **Diabetes:** Procedure, Benefits &	12	07

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		Contraindications for Katichakrasana, Pavanmuktasana,Bh ujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasan-a,Ardha- Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati. 3. **Asthma:** Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansan a, UttanMandukasan-a, BhujangasanaDhanurasana, Ushtrasana, Vakrasana, Kapalbhati, Gomukhasana Matsyaasana, Anuloma-Viloma. 4. **Hypertension:** Procedure, Benefits & Contraindications for Tadasana, Katichakransan, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasan-a,Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi- shodhanapranayam, Sitlipranayam. 5. **Back Pain and Arthritis:** Procedure,Benefits & Contraindications of Tadasan, Urdhawahastootansana, Ardh- Chakrasana, Ushtrasana, Vakrasana, Sarala Maysyendrsana, Bhujandgasana, Gomukhasana, Bhadrasana, Makarasana, Nadi- Shodhana pranayama.		
May	4	**Physical Education and Sports for CWSN (Children with Special Needs - Divyang)** 1. Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics) 2. Concept of Classification and Divisioning in Sports. 3. Concept of Inclusion in sports, its need, and Implementation; 4. Advantages of Physical Activities for children with special needs. 5. Strategies to make Physical Activities assessable for children with special needs.	13	5

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July	5	**Sports & Nutrition** 1. Concept of balanceddiet and nutrition 2. Macro and Micro Nutrients: Food sources & functions 3. Nutritive & Non- Nutritive Components of Diet 4. Eating for Weight control – A HealthyWeight, The Pitfallsof Dieting, Food Intolerance, and Food Myths 5. Importance of Diet inSports-Pre, During and Post competitionRequirements	12	7
August	6	**Test & Measurement in Sports** 1. Fitness Test – SAI Khelo India Fitness Test in school: Age group 5-8 years/ 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 flexibility test, Strength Test (Partial Abdominal Curl Up, Push-Ups for boys, Modified Push-Ups for girls). 2. Measurement of Cardio-Vascular Fitness – Harvard Step Test – Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise. 3. Computing Basal Metabolic Rate (BMR) 4. Rikli & Jones - Senior Citizen Fitness Test • Chair Stand Test for lower body strength • Arm Curl Test for upper body strength • Chair Sit & Reach Test for lower body flexibility • Back Scratch Test for upper body flexibility • Eight Foot Up & Go Test for agility • Six-Minute Walk Test for Aerobic Endurance 5. Johnsen – MethneyTest of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping full-turn	13	4
September	7	**Physiology & Injuries in Sport** 1. Physiological factors determining components of physical fitness 2. Effect of exercise on the Muscular System 3. Effect of exercise on the Cardio- Respiratory System 4. Physiological changes due to aging	13	5

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		5. Sports injuries: Classification (Soft Tissue Injuries - Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted,Transverse Oblique& Impacted)		
TERM -2				
October	8	**Biomechanics and Sports** 1. Newton's Law of Motion & its application in sports 2. Types of Levers and their application in Sports. 3. Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports 4. Friction & Sports 5. Projectile in Sports	18	10
November	9	**Psychology and Sports** 1. Personality; its definition & types (Jung Classification & Big Five Theory) 2. Motivation, its type & techniques. 3. Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it 4. Meaning, Concept & Types of Aggressions in Sports 5. Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self-Talk, Goal Setting	12	7
December	10	**Training in Sports** 1. Concept of Talent Identification and Talent Development in Sports 2. Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle. 3. Types & Methods to Develop – Strength, Endurance, and Speed. 4. Types & Methods to Develop – Flexibility and Coordinative Ability. 5. Circuit Training - Introduction & its importance	15	9

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CLASS	XII	BOOK	Informatics Practices for Class XII
SUBJECT	Informatics Practices	PUBLISHER	Dhanpat Rai & Co.

TERM-1

MONTH	Unit	LESSON	SUB TOPIC	No. of Periods	Weightage
April	2 Database Query using SQL	5. MySQL SQL Revision Tour 6. MySQL Functions	1) Database Concepts and SQL Commands 2) SQL Commands: 3) Revision of database concepts and SQL commands covered in Class XI 4) Math Functions:POWER(), ROUND(), MOD() 5) Text Functions:UCASE()/UPPER(), LCASE()/LOWER() MID()/SUBSTRING()/SUBSTR(), LENGTH(), LEFT(), RIGHT() INSTR(), LTRIM(), RTRIM(), TRIM() 6) Date Functions: NOW(), DATE(), MONTH(), MONTHNAME(),YEAR(),DAY(),DAYNAME() 7) Aggregate Functions: MAX(), MIN(), AVG(), SUM(), COUNT() 8) Using COUNT(*)	37	25
May	2 Database Query using SQL	7. Querying Using SQL 8.JOINS and SET Operations	9) Querying and Manipulating Data: 10) Group by, Having, Order by 11) Working with Multiple Tables: 12) Using equi-join		
July	1 Data Handling using Pandas and Data Visualization	1.Python Pandas -I	1) Introduction to Python Libraries: Pandas and Matplotlib 2) Data Structures in Pandas: Series and DataFramesIndexing and Slicing. 3) Series: 4) Creation from ndarray, dictionary, scalar value 5) Mathematical operations 6) Head and Tail functions 7) Selection, Indexing, and Slicing	25	25

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Month	Unit	Lesson	Sub Topic		
August	1 Data Handling using Pandas and Data Visualization	2. Python Pandas -II	1) DataFrames: 2) Creation from a dictionary of Series, list of dictionaries, Text/CSV files 3) Display and iteration 4) Operations on rows and columns: add, select, delete, rename 5) Head and Tail functions 6) Indexing using Labels, Boolean Indexing		
September	1 Data Handling using Pandas and Data Visualization	3. Plotting with PyPlot 4. Importing/Exporting Data between CSV files and Data Frames.	7) Importing/Exporting Data: 8) Between CSV files and DataFrames 9) Data Visualization: 10) Purpose of Plotting 11) Drawing and saving various types of plots using Matplotlib: line plot, bar graph, histogram 12) Customizing Plots: 13) Adding label, title, and legend in plots 14) Importing/Exporting Data between CSV files and Data Frames.	25	

TERM-2

MONTH	UNIT	LESSON	SUB TOPIC	No. of Periods	Weightage
October	3 Introduction to Computer Networks	9. Introduction to Computer Networks 10. Introduction to Internet and web	1) Introduction to Networks: 2) Types of networks: PAN, LAN, MAN, WAN 3) **Network Devices:** Modem, Hub, Switch, Repeater, Router, Gateway 4) Network Topologies: Star, Bus, Tree, Mesh 5) Introduction to the Internet: 6) **URL, WWW, and its applications: Web, Email, Chat, VoIP** 7) **Website Basics:** • Introduction • Difference between a website and a webpage • Static vs Dynamic web page • Web server and hosting of a website 8) **Web Browsers:** • Introduction • Commonly used browsers • Browser settings	10	10

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			● Add-ons and plug-ins ● Cookies)		
November	4 Societal Impacts	11. Societal Impacts 12. Data Protection	1) Digital Etiquettes and Awareness: 2) Digital footprint 3) Net and communication etiquettes 4) Data protection 5) Intellectual property rights (IPR) 6) Plagiarism 7) Licensing and copyright 8) Free and open-source software (FOSS) 9) Cybersecurity: 10) Cybercrime and cyber laws 11) Hacking 12) Phishing 13) Cyberbullying 14) Overview of the Indian IT Act 15) E-Waste Management: 16) Hazards and management 17) Technology Usage and Health: 18) Awareness about health concerns related to the usage of technology	10	10
December		Revision & Examination			
January		Revision & Examination			

CARMEL CONVENT SCHOOL
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Class:- XII

SUBJECT   : LIFE SKILL AND CAREER COUNSELLING

MONTH	SESSION	ACTIVITY
April	Role of a counsellor *New Class New Challenges	"New life New dreams" Class discussion
May	*Adolescence *Behaviour choices *Emotional awareness and coping skills	Reforming myself" "My weakness are now my strengths" Making up a write up
July	*Friendship skills *Personal space *Conflict resolution	My life my priorities" Make your own personal space circle.
August	*listening skills *Communication Skills	Freedom of Expression Free writing or drawing Skills
September	*Academic skills and achievements *Test taking strategies *Examination Stress Management	"Best out of time" Make a Mind map of your study routine
November	*Bulling prevention and awareness *Body image	I love myself group discussion
December	*Personal safety *Tech Safety	Be safe act SMARTLY Making up a wheel of Safety
January	*Goal setting *Problem solving *Decision Making	Appreciating the difference *Mindfulness

CAREER COUNSELING

Month	Session
April	Introduction to career counseling
May	*Importance of Stream choices *Criteria for stream selection
July	*Careers in PCB *Careers in PCM *Careers in PCMB
August	*Careers in Humanities *Careers in Commerce

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Class:- XII

September	Best practices for.... NEET JEE CLAT CUET
November	Career in sports Careers in Architecture Careers in PCB other than medicine
December	Careers in Hospitality and Tourism Careers in Defiance Careers in Aviation Careers in Mass Media and Communication
January	New age Careers

Special Session will also be conducted for the students depending upon their career choices

SYLLABUS FOR 2024-25
Class:- XII

CLASS	XII	PAINTING	BOOK	PANORAMIC INDIAN PAINTING	
SUBJECT	FINE ARTS	CODE NO. 049	PUBLISHER	VISHAL PUBLISHING CO.	

TERM 1					
MONTH		CHAPTER/LESSON	TOPIC/SUB-TOPIC	NO. OF PERIODS	WEIGHT AGE
APRIL	THEORY	Fundamentals of Art	Six limbs of painting	14	4
	PRACTICAL	SKETCHING	Natural forms (live plants and sand trees, vegetables and fuits, leaves and flowers etc.); Geometrical forms (tables, chairs, tv, kitchen, utensils etc.), Portrait (poster colours and pencil shading)		10
MAY	THEORY	The Rajasthani and Pahari Schools of Miniature Painting	Introduction to indian miniature schools: western-indian, pala, rajasthani, mughal, central india, deccan, and pahari.	24	4
	PRACTICAL	STILL LIFE	Natural objects (vegetables, fruits and plants) Geometrical objects (thick book, jug, bowl, cubes, cylinders, sphere etc)		10
AUGUST	THEORY	The Rajasthani and Pahari Schools of Miniature Painting	Introduction to mughal, central india, deccan, and pahari.	24	4.5
	PRACTICAL	COLOUR AND DESIGN	Zentangle (colourful, black and white)		10
SEPTEMBER	THEORY	The Mughal and Deccani Schools of miniature painting (16th Century	The mughal school (origin and development of the mughal school in brief and main features of the mughal school), study of the following mughal paintings,	24	4.5

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		A.D. to 19th Century A.D.)			
	PRACTICAL	PAINTING	Newspaper painting (with black colour or multi colour) Copy work(copy work of any famous artist in your own style)		10

TERM 2					
MONTH		CHAPTER /LESSON	TOPIC/SUB-TOPIC	NO. OF PERIOD	WEIGHT AGE
NOVEMBER	THEORY	The Mughal and Deccani Schools of miniature painting (16th Century A.D. to 19th Century A.D.)	The deccani school origin and development of the deccani school and main features of the deccan school. Study of the deccani paintings	24	4.5
	PRACTICAL	SPACE DIVISION	Negative and positive space (black and white)		10
DECEMBER	THEORY	Unit 3: The Bengal School and Cultural Nationalism	New era in indian art-an introduction, study of the paintings of new era Study of famous indian artist's paintings	24	4.5
	PRACTICAL	PAINTING COMPOSITION	Monochrome painting (draw anything of your choice and use any poster colours) Landscape, cityscape, seascape, sunset scene(use any medium)		10
JANUARY	THEORY	Unit 4: The Modern trends In Indian Art	Study of famous indian artist's paintings	20	4
	PRACTICAL	INDIAN FOLK ART	Madhubani and warli art		10
		Submit portfolios			

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HINDUSTANI MUSIC VOCAL (Code–034)

Sr.No.	Units	No.of Periods	Marks
	Unit1	08	
1.1	Brief study of the following:-Alankar, Kan, Meend, Khatka,Murki, Gamak.	05	06
1.2	Brief study of the following Gram, Murchhana, Alap, Tana.	07	
	Unit2	05	
			06
2.1	Historical development of Time Theory of Ragas	05	
	Unit3	08	
3.1	Detail study of the following Sangeet Ratnakar Sangeet Parijat	04	06
3.2	Lifesket chand Cotribution of Faiyaz Ghulam AliKhan, KrishnaRao, ShankarPandit	04	
	Unit4	09	
4.1	Description of Prescribed Talas along with Tala Notation with Thah, Dugun, Tigun and Chaugun	06	06
4.2	Tuning of Tanpura	03	
	Unit 5	10	
5.1	Critical study of Prescribed Ragas along with recognizing Ragas from phrases of Swarasand Elaborating them excluding Raga Shuddha	04	06

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5.2	Writingin Notation the Compositions of Prescribed Ragas. • Bhairav • Bageshri • Malkauns	06	

Practical

Sr.No.	Topics	No.of periods
1.	One Vilambit Khayal with simple elaborations and few Tanas in any two of the prescribed Ragas.	18
2.	One Drut Khayal with simple elaborations and few tanas in the following Ragas-Bhairav, Bageshri, andMalkauns.	42
3.	One Tarana and one Dhamar with dugun and chaugunin anyone of the prescribed Ragas.	10
4.	Ability to recognize the Ragas from the Phrases of Swara srendered by the examiner.	10
5.	Recitation of the The kas of Jhaptala, Rupak, and Dhamar with Dugun and Chaugun, keeping tala with and beats.	15
6.	Tuning of Tanpura.	05

Principal
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