DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

MODULE WISE SYLLABUS (SESSION: 2024-25)

Class: XI	**A, B, C, D,E**	**Subject: ENGLISH**	**Name of the Teacher: PANCHALI DEB**	
Module/Duration: Term-I	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Subject Enrichment/ Art Integration**
I APRIL	9 Days	**Literature** The Portrait of a Lady. A Photograph **Reading** Comprehension **Writing Skills -**Poster Making.	**The students will develop** sponsibility and sensitivity towards grandparents and other relations in the family. ● know the sacrifices and support given by the family. ● show concern for animals. ● develop an independent attitude in thought and actions. ●Understand that death is the inevitable.	Rummage through your photo album and select a photograph taken when vacationing with your family or during any celebration. **Or** Write a letter to your grandmother from your hostel telling her how you miss her and remember her love and care all through your childhood.
II MAY	20 Days	**Literature** The Summer of the Beautiful White Horse. We're not afraid to die. If We Can all be Together The Laburnum Top **Writing Skills-**Note Making: Introduction **Grammar:** Tenses	**To enable the students to-** ● read and understand between lines. ● understand the importance of societal norms and family values. ● realise that hazardous experience teaches us to face adverse situations.	A paper yacht is to be made and various parts of the yacht to be identified and labelled.
X SUMMER VACCATION 30 MAY 2024 – 30 JUNE 2024				
III JULY	22 Days	**Literature**- Discovering Tut: the Saga Continues. The Address **Writing Skills**: Debate **Grammar**: Sentence Reordering.	**To enable the students to-** ● learn about various Egyptian beliefs. ● analyse the situation and characters of the chapter. ● develop respect for the rituals and customs of others.	Write a Diary entry talking about how you felt on seeing your mother's belongings in a different setup.

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

MODULE WISE SYLLABUS (SESSION: 2024-25)

V AUGUST	19 days	**Literature** The Adventure Mother's Day (Play) **Grammar -** Clauses **Writing Skills -**Speech Writing.	**To enable the students to-** ● imbibe values like care and concern, empathy, compassion, respect for elders. ● understand, enjoy and appreciate plays. ● imbibe values like care and concern, empathy, compassion, respect for elders.	Role Play: will be done by the students. **Or** Talk: Is drama a good medium for conveying a social message?
2 September to 9 September 2024		**REVISION FOR HALF YEARLY EXAMINATION**	Term-I syllabus will be revised thoroughly along with doubt clearing. After the completion of syllabus by 30th August 2024.	
10 September to 27 September 2024		**HALF YEARLY EXAMINATION**		
Term II resumes: 30 September 2024				
VI OCTOBER	18 Days	**Literature:** The Tale of the Melon City Childhood **Grammar:** Integrated Grammar	**Students will be able to-** ● Understand satire, learn to appreciate the poem and its literary devices ● appreciate the aesthetic writing.	Name different types of poems and explain how they are written. Eg. Sonnet, Haiku etc.
VII NOVEMBER	19 Days	**Literature** Father to Son Birth **Writing Skills-**Note Making with summary **Grammer-** Clauses	**Students will be able to-** ● Understand that a cordial relationship is a must between father and son. ● understand how the generation gap can create misunderstandings.	A flipbook drawing showing the distance growing between two people **OR** Write an article on the topic-'Medical-A Noble Profession'
VIII DECEMBER	19 Days	**Literature** Silk Road **Writing Skills**- Debate Grammar- Sentence Transformation	**Students will be able to-** ● know more about Tibet ● know why the silk road was called silk route. ● learn why this route was important for ancient trade	Write a travelogue as a first-person narrative describing your last vacation.

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

MODULE WISE SYLLABUS (SESSION: 2024-25)

Winter Break- 30th December 2024-to 7th January 2025				
IX JANUARY	18 Days	**Literature** The Voice of the Rain **Reading** Comprehension **Writing Skills**-Note Making, Classified Advertisement, Debate and Speech Revision for Annual Examination.	**Students will be able to-** ● appreciate nature and the aesthetic writing. ● identify the figures of speech.	Write a speech on 'Necessity of Water Cycle for the sustenance of life'.
Syllabus Completion January 31st 2025				
Revision- Annual Examination: 3rd February 2025 to 6th February 2025				
Annual Examination: 7th February 2025 to 21st February 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

SCIENCE(PCB)

Class: XI	**Subject: PHYSICS (042)**		**Name of the Subject Teacher: VARUN KUMAR**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/Integration of Art**
I April 2024	9 Days	Physical World and measurement Ch:2 Unit, dimension and measurement	Students learn about unit system and uses of dimensional analysis.	
II MAY 2024	20 Days	Chapter–3: Motion in a Straight Chapter–4: Motion in a plane	Students learn the basic concept of displacement, distance, Velocity, speed and Newton's equations of motion. Students learn about vector, scalar, dot product, cross product, Projectile motion and uniform circular motion.	To determine the mass of two different objects using a beam balance.
Summer Vacation:30 May to 30 June 2024				
School Reopens : 1 July 2024				
III July2024	22 Days	Ch:5 Laws of motion	Student learn about impulse,linear,momentum connected mass problem friction and Banking of road	To measure diameter of a small spherical body by using vernier calipers.
IV August 2024	19 Days	Ch:6 Work, Energy and Power	Student learn about work, Mechanical energy,Power and Collision.	To measure diameter of a given wire and thickness of a given sheet using screw gauge. To determine the radius of curvature of a given spherical surface by spherometer.
Syllabus completion: 30th August 2024				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

V September 2024	6 Days	REVISION FOR HALF YEARLY EXAM (2 SEPTEMBER 2024 – 9 SEPTEMBER 2024)		
Half Yearly Examination:10 September 2024 to 27 September 2024				
Seconds Terms Resumes: 30 September 2024				
VI October 2024	18 days	Ch:7 System of Particles and Rotational motion Ch:8 Gravitation	Students learn about center of mass, Torque, Angular moment, Moment of inertia and relation between them and moment of inertia of different bodies. Students learn about effect on acc. due to gravity of height, depth and shape of earth, escape velocity, orbital velocity and Kepler's law.	Using a simple pendulum plot its L - T^2graph and use it to find the effective length of second's pendulum.
VII November 2024	19 Days	Ch:9 Mechanical properties of solids Ch:10 Mechanical properties of fluid	Students learn about elasticity, stress, strain and different types of modulus of elasticity, stress-strain curve and other applications of elasticity. Students learn about pressure, density, equation of continuity,Bernoulli's theorem and its applications,surface tension and capillarity action.	To determine the relation between frequency and length of a given wire under constant tension using sonometer.
VIII December 2024	19 Days	Ch:11 Thermal Properties of Matter	Students learn about different types of heat,conductivity,Weins's law, Stefan's law and newton's law of cooling. Students learn about laws of thermodynamics,different types of process	To study the relation between the length of a given wire and tension for constant frequency using sonometer.

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

		Ch:12 Thermodynamics Ch:13 Kinetic Theory of Gases	with their equation and work done,reversible, irreversible and cyclic process. Students learn about assumptions of gas theory, R.M.S. most probable speed,degrees of freedom,mean free path and law of equipartition energy.	To find the force constant of a helical spring by plotting a graph between load and extension.
Winter Break: 30 December 2024 to 7 January 2025				
School reopens: 8 Jan 2025				
IX January 2025	18 Days	Ch:14 Oscillations Ch: 15 Waves	Students learn about S.H.M.,displacement,velocity,acc.in S.H.M.oscillation of spring,energy in S.H.M.and simple pendulum. Students learn about wave motion, displacement equation, standing waves,organ pipe and beats.	Lab Activities
Syllabus Completion: 31 January 2025				
Revision Annual Examination:3 February2025 to 6February 2025				
Annual Examination: 7 February 2025 to 21 February 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XI	**Subject: Chemistry**		**Name of the Subject Teacher: Swati Lohani**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
I April 2024	9	Unit I: SOME BASIC CONCEPTS OF CHEMISTRY	Students will be able to ● Describe the terms – mole and molar mass. ● Calculate the mass percent of component elements constituting a compound. ● Determine empirical formula and molecular formula for a compound from the given experimental data and ● Perform the stoichiometric calculations.	Basic Laboratory technique.
II May 2024	20	Unit II:STRUCTURE OF ATOM Unit III: CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES	Students will be able to ● Know about the discovery of electron, proton and neutron and their characteristics; ● Understand the important features of the quantum mechanical model of atom. ● Understand Planck's quantum theory. ● Explain the photoelectric effect and describe features of atomic spectra. ● State the de Broglie relation and Heisenberg uncertainty principle. ● State Aufbau principle, Pauli exclusion principle and Hund's rule of maximum multiplicity; ● Write the electronic configurations of elements.	Chromatographic techniques
SUMMER VACATION : 30 May 2024 to 30 June2024				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

III July 2024	22	Unit III: CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES Unit IV: CHEMICAL BONDING AND MOLECULAR STRUCTURE	Students will be able to ● Appreciate how the concept of grouping elements in accordance to their properties led to the development of Periodic Table. ● Understand the Periodic Law. ● Understand the significance of atomic number and electronic configuration as the basis for periodic classification ● Explain the octet rule and its limitations, draw Lewis structures of simple molecules; ● Explain the formation of different types of bonds. ● Describe the VSEPR theory and predict the geometry of simple molecules.	Acid Base Titration
IV August 2024	19	UNIT IV: CHEMICAL BONDING AND MOLECULAR STRUCTURE UNIT VII: REDOX REACTIONS	Students will be able to ● Explain the valence bond approach for the formation of covalent bonds. ● Predict the directional properties of covalent bonds. ● Explain the different types of hybridisation involving s, p and d orbitals and draw shapes of simple covalent molecules. ● Describe the molecular orbital theory of homonuclear diatomic molecules and explain the concept of hydrogen bond ● Identify redox reactions as a class of reactions in which oxidation and reduction reactions occur simultaneously. ● Define the terms oxidation, reduction, oxidant (oxidizing agent) and reductant (reducing agent). ● Explain mechanism of redox reactions by electron transfer process. ● Use the concept of oxidation number to identify	Salt analysis- Acidic Radical Carbonate and Sulphide

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			oxidant and reductant in a reaction Suggest a comparative order among various reductants and oxidants. ● Balance chemical equations using oxidation number and half reaction method; ● learn the concept of redox reactions in terms of electrode processes	
V September 2024	6	**REVISION FOR HALF YEARLY EXAM (2 SEPTEMBER 2024 – 9 SEPTEMBER 2024)**		
		HALF YEARLY EXAM (10 SEPTEMBER 2024 – 27 SEPTEMBER 2024)		
VI October 2024	18	UNIT VIII: ORGANIC CHEMISTRY -SOME BASIC PRINCIPLES AND TECHNIQUES	Students will be able to ● classify the organic compounds; • name the compounds according to IUPAC system of nomenclature and also derive their structures from the given names; ● learn the techniques of purification of organic compounds; ● write the chemical reactions involved in the qualitative analysis of organic compounds ● Understand the principles involved in quantitative analysis of organic compounds	Salt analysis- Acidic Radical Sulphite and Nitrite
VII November 2024	19	UNIT IX: HYDROCARBONS	Students will be able to ●Draw and differentiate between various conformations of ethane. ● Appreciate the role of hydrocarbons as sources of energy and for other industrial applications. ● Predict the formation of the addition products of unsymmetrical alkenes and alkynes on the basis of electronic mechanism ●Prepare different categories of	Salt analysis- Acidic Radical Chloride, Bromide and Iodide

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			hydrocarbons using simple inorganic materials ●They will understand the conversion of one hydrocarbon into other. ●They will learn name reactions like Wurtz reaction, Kolbe's electrolytic method and decarboxylation reaction.	
VIII December 2024	19	UNIT V: THERMODYNAMICS	Students will be able to ● Explain the terms : system and surroundings ●Discriminate between close, open and isolated systems. ●Explain internal energy, work and heat, enthalpy ●State the laws of thermodynamics and express mathematical relation between the enthalpy, internal energy, Gibbs free energy and entropy. ● Understand spontaneity of a reaction. ●Solve the numericals based on enthalpy, entropy and Gibbs free energy.	Salt analysis- Acidic Radical Nitrate and Acetate ,Sulphate and Phosphate
WINTER VACATION : 30 December 2024 to 7 January 2025				
IX January 2025	18	UNIT VI: EQUILIBRIUM	Students will be able to ●Classify acids and bases as weak or strong in terms of their ionization constants. ●Explain the dependence of degree of ionization on concentration of the electrolyte and that of the common ion. ●Describe pH scale for representing hydrogen ion concentration. ●Explain ionisation of water and its dual role as acid and base. ●Describe ionic product (Kw) and pKw for water ●Appreciate use of buffer solutions; • calculate solubility product constant	Salt analysis- Basic Radical lead and Aluminium
		REVISION FOR ANNUAL EXAM (3 FEBRUARY 2024 – 6 FEBRUARY 2025)		
ANNUAL EXAMINATION: 7 FEBRUARY 2025 - 21 FEBRUARY 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XI	**Subject: BIOLOGY**		**Name of the Subject Teacher: SONIA SARASWAT**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
I APRIL 2024	9 DAYS	CH 1:The Living World CH 2:Biological Classification	At the end of chapters students will be able to understand: • Principle for identification, nomenclature and basis of classification of plant kingdom. • Five kingdom classification	● Study of the parts of a compound microscope. ● Study of specimens /slides
II MAY 2024	20 DAYS	CH 3:Plant Kingdom CH 4:Animal Kingdom CH 5: Morphology of Flowering Plants	● Classification of plants into major groups. ● Nomenclature and basis of classification of animal kingdom ● Enormous variation in shapes, size, structure ,lifespan of flowering plants.	● Study of plant specimens/slides/models ● Study of animal specimens/slides/models ● Study and description of flowering plants ● Study of different modifications in roots, stems and leaves. ● Study and identification of different types of inflorescence
SUMMER VACATION : 30 May 2024 to 30 June2024				
III JULY 2024	22 DAYS	CH 6:Anatomy of flowering plants CH 7:Structural organization in Animals CH 8:Cell:The unit of Life	● Internal structure of monocot and dicot plants. ● Morphology and anatomy of frog ● Cell shape, size, functions and cell organelle	● Preparation of T.S. of dicot and monocot roots and stems

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

IV AUGUST 2024	19 DAYS	CH 9:Biomolecules CH 10:Cell Cycle and Cell Division	● Cell shape, size, functions and cell organelle ,to study the chemical composition of cell and metabolic activities taking place inside the cell of a living body, enzyme nature and their classification. ● Various phases of cell cycle such as interphase, mitosis and meiosis	● Test for the presence of sugar, starch, proteins and fats. ● Study of mitosis in onion root tip cells and animal cells from permanent slides.
V September 2024	6 DAYS	Revision-Half yearly examination: 2 September 2024 to 9 September 2024		
HALF YEARLY EXAMINATION:10 September 2024 to 27 September 2024				
SECOND TERM RESUMES EFFECTIVE FROM 30 SEPTEMBER 2024				
VI OCTOBER 2024	18 DAYS	CH 11: Photosynthesis in Higher Plants Ch.12: Respiration in Plants	● process of synthesizing energy rich compounds and sugar in C3 and C4 plants ● Various events such as glycolysis, kerb's cycle and ETS to breakdown glucose and release products such as carbon dioxide, water and ATP	●Separation of plant pigments through chromatography. ●Study of osmosis by potato osmometer ●Study of the rate of respiration in leaf tissue and germinating seeds. ●Study of plasmolysis in epidermal peel ●Study of distribution of stomata in upper and lower surface of leaves

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

VII NOVEMBER 2024	19 DAYS	Ch.13: Plant Growth and Development Ch. 14: Breathing and Exchange of Gases CH 15:Body fluids and Circulation	● Various phases of growth in plants and phytohormones. ● Mechanism of inspiration, expiration and exchange of gases in humans ● Structure of heart, cardiac cycle and regulatory mechanism of circulation in human beings	
VIII DECEMBER 2024	19 DAYS	Ch.16: Excretory Products and their Elimination Ch.17: Locomotion and Movement Ch.18:Neural Control and Coordination	● Structure and function different parts of kidney and nephrons, formation of urine and regulation of excretory system in humans ● Different types of muscles, structure and function of contractile protein, mechanism of contraction and skeletal system ● CNS, PNS and conduction of nerve impulse	● Study of human skeleton
WINTER VACATION : 30 December 2024 to 7 January 2025				
IX JANUARY 2025	18 DAYS	Ch. 19: Chemical Coordination and Integration	● Various hormones of human beings, their source gland and their functions	
SYLLABUS COMPLETION :31 JANUARY 2025				
REVISION ANNUAL EXAMINATION: 23 FEBRUARY 2025 TO 6 FEBRUARY 2025				
ANNUAL EXAMINATION: 7 FEBRUARY TO 21 FEBRUARY 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XI	**Subject: Mathematics**		**Name of the Subject Teacher: Dinesh Kumar Tyagi**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
1	9	Chapter-1 SETS Chapter-2 RELATIONS AND FUNCTIONS	Students will be able to ● Define sets. ● Differentiate between types of sets. ● know about operation on sets ● draw Venn diagram ● define ordered pairs and cartesian product ● Define relation and their domain and range	To find the number of subsets of a given set and verify that if set contains n elements, then total number of subsets is 2^n To represent set operations using Venn Diagram
II	20(Upto 29 May)	Chapter-2 RELATIONS AND FUNCTIONS (continued) Chapter-5 LINEAR INEQUALITIES Chapter -4 COMPLEX NUMBERS	Students will be able to ● Define Function and their domain and range ● Draw graph of some standard function ● Understand the concept of linear inequality. ● Find solution of for linear inequation in one variable ● Know about imaginary and complex numbers. ● Apply operations on complex Numbers ● Find Modulus and argument of complex numbers	Activity on concept of Domain & Range of a Square root function
Summer Vacation :30 May 2024 to 30 June 2024				
School Reopens: 1 July 2024				
III	22	Chapter -3 TRIGONOMETRIC FUNCTIONS Chapter -6 PERMUTATIONS & COMBINATIONS	Students will be able to ● Define angles and system for measuring angles ● Differentiate between T- ratios and Trigonometric Functions ● Sketch graph for various trigonometric functions.	To plot the graphs of sinx, sin2x , 2sinx and sinx/2 in same coordinate axes.

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			● Concept of allied angles and quadrant system ● know about Compound Angles ● Transformation identities ● T - ratios of Multiple and sub multiple angles ● understand concept of factorials ● Concept of Fundamental principle of counting ● concept of permutations and combinations ● Solve word problems based on PnC	To find the number of ways in which three cards can be selected from five cards.
IV	19	Chapter 7 BINOMIAL THEOREM Chapter -8 SEQUENCES & SERIES	Students will be able to ● know about Pascal Triangle ● Apply binomial theorem for positive integral powers ● Solve problems related to binomial theorem Students will be able to ● Understand concept of sequences and series ● Define Geometric Progression ● Find nth term and sum of n terms of GP.	To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent
Syllabus completion: 30 August 2024				
Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024				
Half Yearly Examination: 10 September 2024 to 27 September 2024				
Second Term Resumes: 30 September 2024				
V	18	Chapter 9 STRAIGHT LINES Chapter-10 CONIC SECTIONS	Students will be able to ● To understand concept of slope ● find slope for a given line . ● To find equation for a given line. ● To establish relationship between slopes under different conditions.	Verify that equation of line passing through the point of intersection of two lines L1 and L2 is of the form L1+K.L2=0

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			• To calculate the distance of a point from a line. • Transformation of equation of line from one form to another form • Know about sections of a cone • know about circles, Parabola, ellipse and hyperbola • To find equations of all conic sections. • To solve word problems based on conic sections.	
VI	19	Chapter-12 Limits & Derivatives	Students will be able to • know the concept of limits. • concept of LHL and RHL • know about various indeterminate forms • find limits of function in various forms . • understand concept of derivatives • know about geometric interpretation of derivatives	Verification of the geometrical interpretation of derivatives.
VII	19	Chapter-11 Introduction to 3-D Geometry Chapter-13 Statistics	Students will be able • to know about coordinates axes and octants in three-dimensional space • to know about coordinates of a point in space • Find distance between two points in 3D space • know about measures of dispersion • find mean deviation from median & mean • To find standard deviation & variance for given	
WINTER BREAK: 30 DECEMBER 2024 TO 7 JANUARY 2025 SCHOOL REOPENS ON 8 JANUARY				Verificatio

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

	n o f a d d i t i o n t h e o r e m o f p r o b a b i l i t y .

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

VIII	18(up to 31 jan)	Chapter-14 Probability	Students will be able ● To define sample space for given events. ● To know about events and their types ● to know about axiomatic approach ● To find probability for different set of events.	Verification of addition theorem of probability.
SYLLABUS COMPLETION :31 JANUARY 2025				
REVISION – ANNUAL EXAMINATION – 3 FEB 2025 TO 6 FEB 2025				
ANNUAL EXAMINATION – 7 FEB 2025 TO 21 FEB 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XI	**Subject: APPLIED MATHEMATICS**		**Name of the Subject Teacher: Mr ASHISH PUNJ**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
I	9	UNIT – 1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS(Contd.)	.Pupil will be able to : • Express decimal numbers in binary system • Express binary numbers in decimal system • Relate indices and logarithm /antilogarithm • Find logarithm and antilogarithms of given number • Evaluate the angular value of a minute • Calculate the angle formed between two hands of clock at given time • Calculate the time for which hands of clock • Determine Odd days in a month/ year/ century • Decode the day for the given date • Solve word problems based on given topic • To solve numerical applications based on calendar,time,work & distance , mensuartion etc.	Project on evolution of LOGARITHMS
II	20	UNIT – 1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS(Contd.) UNIT – 2 ALGEBRA (Contd.)	Pupil will be able to • Define sets. • Differentiate between types of sets. • Solve word problems related to it. • Define relation • Categorise different type of relations. • To recall different sets of statements along with special words/phrases.	

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			• To validate statements.	
Summer vacation:30 May 2024 to 30 June 2024				
School Reopens: 1 July 2024				
III	22	UNIT – 2 ALGEBRA (Contd.) UNIT -3 MATHEMATICAL REASONING UNIT 8 : COORDINATE GEOMETRY	• Apply the concept of Venn diagram to understand the relationship between sets • Solve problems using Venn diagram ● Solve logical problems involving odd man out, syllogism, blood relation and coding decoding ● Define permutation ● Apply the concept of permutation to solve simple problems ● Differentiate between permutation and combination Apply the formula of combination to solve the related problems • To understand relationship between various conic sections. • To write general equations for various conic sections. To solve word problems based on above topic	CONSTRUCTION OF CONIC SECTIONS SUM OF ODD NUMBERS
IV	19	UNIT 4: CALCULUS (contd.)	• Define domain, range and co-domain of a given function Define limit of a function ● Solve problems based on the algebra of limits	
Syllabus completion: 30 August 2024				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024				
Half Yearly Examination: 10 September 2024 to 27 September 2024				
Second Term Resumes: 30 September2024				
V	18	UNIT 4: CALCULUS (contd.) UNIT 5 : PROBABILITY	• To recall the concept of limits. • To differentiate mathematical functions. To use product rule & quotient rule in differentiating given functions • To define sample space for given events. • To find probability for different set of events. To solve problems based on BAYES' theorem	To find slope of a function graphically.
VI	19	UNIT 6 : DESCRIPTIVE STATISTICS	• To recall basic concepts of simple interest and compound interest. To solve problems related to it. • To find mean deviation from median & mean To find mean, standard deviation & variance for given observations	
VII	19	UNIT 7 : FINANCIAL MATHEMATICS(contd.)	• To recall basic concepts of simple interest and compound interest. To solve problems related to annuity. To find income tax,electricity bill,water bill etc.	Project on BILLS
Winter Break: 30 December 2024 to 7 January 2025				
VIII	18	UNIT 7 : FINANCIAL MATHEMATICS(contd.) REVISION FOR ANNUAL EXAMINATION	• Define with examples the concept of effective rate of interest. • Interpret the concept of compounding and discounting along with practical applications •Compute net present value	

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

			•Apply net present value in capital budgeting decisions	
SYLLABUS COMPLETION : 31.01.2025				
REVISION ANNUAL				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XI	**Subject: PHYSICAL EDUCATION**		**Name of the Subject Teacher: Mr. ARJUN BISHT**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
1. April (18 April 2024)	09	**Unit – I Changing Trends and Careers in Physical Education** 1. Concept, Aims & Objectives of Physical Education 2. Development of Physical Education in India – Post Independence 3. Changing Trends in Sports- playing surface, wearable gear and sports equipment, technological advancements 4. Career options in Physical Education 5. Khelo-India Program and Fit – India Program	• To make the students understand the meaning, aims, and objectives of Physical Education. • To Teach students about the development of physical education in India after Independence. • To educate students about the development of sports surfaces, wearable gear, sports equipment, and technology. • To make students know the different career options available in the field. • To make them know about the Khelo India Program	PPT on different career options.
2. May (Up-to 29 May 2024)	20	**Unit – II Olympism Value Education** 1. Olympism – Concept and Olympics Values (Excellence, Friendship & Respect) 2. Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind 3. Ancient and Modern Olympics 4. Olympics - Symbols, Motto, Flag, Oath, and Anthem. 5. Olympic Movement Structure-IOC, NOC, IFS, Other members	• To make the students aware of Concepts and Olympics Values (Excellence, Friendship & Respect) • To make students learn about Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind • To make students understand ancient and modern Olympic games. • To make the students aware of Olympics - Symbols, Motto, Flag, Oath, and Anthem. • To make students learn about the working and functioning of IOC, NOC and IFS, and other members	Prepare a chart of Olympic Symbols.

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

SUMMER VACATION: 30May 2024 to 30 June 2024				
School Reopens: 1 July 2024				
3. July	22	**Unit – III Yoga** 1. Meaning and importance of Yoga 2. Introduction to Astanga Yoga 3. Yogic Kriyas (Shat Karma) 4. Pranayama and its types. 5. Active Lifestyle and stress management through Yoga. **Unit – IV Physical Education and Sports for Children with Special Needs** 1. Concept of Disability and Disorder 2. Types of Disability, its causes & nature (Intellectual disability, Physical disability). 3. Disability Etiquette 4. Aim and objectives of Adaptive Physical Education. 5. Role of various professionals for children with special needs (Counselor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist, And Special Educator)	• To make the students aware of the meaning and importance of yoga • To make them learn about Astanga yoga. • To teach students about yogic kriya, specially shat karmas. • To make the learn and practice types of Pranayama. • To make them learn the importance of yoga in stress management. • To make the students aware concept of Disability and Disorder. • To make students aware of different types of disabilities. • To make students learn about Disability Etiquette. To make the students Understand the aims and objectives of Adaptive Physical Education To make students aware of role of various professionals for children with special needs	Pictorial presentations of different yogic kriyas.
4 August 2024 (Up-to 30 August 2024)	19	**Unit – V Physical Fitness, Wellness, and Lifestyle** 1. Meaning & importance of Wellness, Health, and Physical Fitness. 2. Components/Dimensions of Wellness, Health, and Physical Fitness 3. Traditional Sports & Regional Games for promoting wellness	• To make the students understand the Meaning & importance of Wellness, Health, and Physical Fitness • To make students aware of the Components/Dimensions of Wellness, Health, and Physical Fitness • To make students learn Traditional Sports &	

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		4. Leadership through Physical Activity and Sports. 5. Introduction to First Aid –PRICE. **Unit – VI Test, Measurement & Evaluation** 1. Define Test, Measurements and Evaluation. 2. Importance of Test, Measurements and Evaluation in Sports. 3. Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site) 4. SomatoTypes (Endomorphy, Mesomorphy & Ectomorphy. 5. Measurements of health-related fitness.	Regional Games to promote wellness • To develop Leadership qualities through Physical Activity and Sports in students • To make students learn First Aid and its management skills. • To Introduce the students with the terms like test, measurement and evaluation along with its importance. • To Introducing them the methods of calculating BMI, Waist-hip ratio and Skinfold measurement. • To make the students aware of the different somatotypes. • To make the students learn the method to measure health-related fitness.	Prepare a creative test for checking any particular skills.
Syllabus Completion: 30 August 2024				
Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024				
Half Yearly Examination: 10 September 2024 to 27 September 2024				
Second Term Resumes: 30 September 2024				
5. October 2024	18	**Unit – VII Fundamentals of Anatomy, Physiology in Sports** 1. Definition and importance of Anatomy and Physiology in Exercise and Sports. 2. Functions of Skeletal System, Classification of Bones, and Types of Joints. 3. Properties and Functions of Muscles. 4. Structure and Functions of Circulatory System and Heart. 5. Structure and Functions of Respiratory System	• The students will learn the meaning and definition & identify the importance of anatomy, physiology, and kinesiology. • Students will understand the main functions and Classification of Bone and the Types of Joints. • The students will learn the Properties and Functions of Muscles. • The students will learn the Structure and Functions of the Circulatory System and Heart. • The students will learn the Structure and Functions of Respiratory System.	Anatomical art for Athletes.

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

6. November 2024	19	**Unit – VIII Fundamentals Of Kinesiology And Biomechanics in Sports** 1. Definition and Importance of Kinesiology and Biomechanics in Sports. 2. Principles of Biomechanics 3. Kinetics and Kinematics in Sports. 4. Types of Body Movements-Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation. 5. Axis and Planes – Concept and its application in body movements	• To make the students learn the principles of biomechanics. • To make the students understand the concept of Kinetics and Kinematics in Sports • To make the students learn about different types of body movements. • To make the students understand the concept of Axis and Planes and its application in body movements.	Prepare a Chart on different movements.
7. December 2024	19	**Unit – IX Psychology and Sports** 1. Definition & Importance of Psychology in Physical Education & Sports; 3. Developmental Characteristics at Different Stages of Development; Adolescent Problems & their Management; 4. Team Cohesion and Sports; 5. Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness	• The students will identify the definition and importance of Psychology in Physical Education and sports. • The students will be able to differentiate characteristics of growth and development at different stages Students will be able to identify the issues and management related to adolescents. • The students will be able to understand the importance of team cohesion in sports. • Students will distinguish different Psychological Attributes like Attention, Resilience, and Mental Toughness.	Visualize victory through Art.
Winter Break: 30 December 2024 to 7 January 2025				
School Reopens: 8 January 2025				
8. January 2025 (Up-to 31 January 2025	18	**Unit – X Training & Doping in Sports** 1. Concept and Principles of Sports Training 2. Training Load: Over Load, Adaptation, and Recovery	• To make the students aware about of concepts and principles of sports training. • To make students learn and understand the Training Load, Over Load, Adaptation, and Recovery concepts.	Compare Warming up and cooling down for different climate. (Prepare chart)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		3. Warming-up & Limbering Down– Types, Method &Importance 4. Concept of Skill, Technique, Tactics & Strategy 5. Concept of Doping and its disadvantages.	• To make students Understand the importance of warning up and limbering down exercises. • To introduce the terms like Skills, Techniques, Tactics, and Strategies to the students. • To make students aware of the doping substances and their disadvantages in sports.	
Syllabus Completion: 31 January 2025				
Revision- Annual Examination: 3 February 2025 to 6 February 2025				
Annual Examination: 7 February 2025 to 21 February 2025				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XI	**Subject: ECONOMICS (030)**		**Name of the Subject Teacher: MR. ACHINT BAJPAI**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
1. April (18 April 2024)	09	**Part B: Introductory Microeconomics** **Unit 4: Introduction** Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost	To understand the rationale behind determining a situation where a consumer attains rest? How will he react in a situation if he is disturbed from such a position in case he measures his utility in numbers or he ranks them? To understand the idea of the term demand and how it differentiates with a desire and a want.	
2. May (Up-to 29 May 2024)	20	**Demand and Supply and their Elasticities** **Demand**, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method. Supply, market supply, determinants of supply, supply schedule, supply curve and its slope,	To develop a sound distinction between the effects on a consumer's demand and quantity demanded in case of various factors affecting demand, situations which breach the standard law of demand and also the numerical expression to the law of demand .	**Application through schedules, graphs and Numerical.**

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method.	To understand the basis of the relationship between price , quantity supplied and other factors affecting supply of a firm.	
		Summer Vacation: 30 May 2024 to 30 June 2024		
		School Reopens: 1 July 2024		
3. July	22	**Consumer's equilibrium** - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis. Analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium. **Measures of Central Tendency**- Arithmetic mean, median and mode	The students will be able to understand the difference between measuring consumer's equilibrium by cardinal and ordinal approach and also determine graphical interpretation of the concepts. The students shall be able to calculate and understand working of average, median ,mode and also differentiate between them as various measures of central tendency	**Diagrammatic and Tabular Presentation**
4 August 2024 (Up-to 30 August 2024)	19	**Measures of Dispersion** - absolute dispersion (range, quartile deviation, and standard deviation*); relative dispersion (co-efficient of range, co-efficient of quartile-deviation). **Correlation** – meaning and properties,	To mark a difference between various absolute and relative measures of dispersion vis their calculation. To develop an understanding between two variables whether directly or indirectly correlated.	**Working Numerical** **Numerical Problems**

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation.	To gain proficiency in developing a correlation by Karl Pearson's method and Spearman's rank correlation.	
		Syllabus Completion: 30 August 2024		
		Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024		
		Half Yearly Examination: 10 September 2024 to 27 September 2024		
		Second Term Resumes: 30 September 2024		
5. October 2024	18	**Introduction to Index Numbers** - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers. **Introduction** What is Economics? Meaning, scope, functions and importance of statistics in Economics **Collection, Organisation and Presentation of data** **Collection of data -** sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data:	To gain sound knowledge on various price and quantity indexes which help in assessing the cost of living index in a particular year. Students will be able to understand the meaning of statistics as a discipline of economics, its limitations, Functions and opinions. The student shall be able to differentiate between various sources of collecting data and also recall the classification of data into primary and secondary.	**Numerical Problems** **Quiz and Multiple Choice Questions.**

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		Census of India and National Sample Survey Organisation. **Organisation of Data**: Meaning and types of variables; Frequency Distribution.3 Presentation of Data: Tabular Presentation and Diagrammatic **Presentation of Data**: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph)	Students will be able to arrange and present data in tabular form and also differentiate between different types of tables. They shall also be able to present the data graphically via various tools histogram, polygon, ogive and mark a difference between them	**Quiz and Multiple Choice Questions.**
6. November 2024	19	**Produce's Behaviour** **Meaning of Production Function** – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor: Law of Variable Proportions. **Cost and Revenue**:- Different types of cost and their relationships. **Producer's equilibrium** - meaning and its conditions in terms of marginal revenue - marginal cost.	The student shall be able to understand the way a firm operates in short period wherein a distinction between variable and fixed factors of production can be marked. He shall also be able to understand the various aspects of production in a firm and their behavioural pattern in the short period via a standardised law. To enhance the fundamental principle of stability or position of rest to a firm by utilising the previous concepts of cost and revenue. To emphasise on the expenditures incurred by a firm in the production of a commodity whether monetary or non-monetary and their behavioural pattern usually in short period. Also post sales income i.e. revenue shall be	**Application through schedules, graphs and Numerical.** **Also utilising the fundamentals of cost and revenue.**

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

			understood by the student in case of various market conditions so as to create a sound foundation for understanding the concept of a producer's equilibrium	
7. December 2024	19	**Forms of Market and Price Determination under Perfect Competition with simple applications.** **Perfect competition** - Features; Determination of market equilibrium and effects of shifts in demand and supply. **Other Market Forms** - monopoly, monopolistic competition - their meaning and features	To learn what are the keyent features of a market? anddentify the difference between various forms of market existent as part of syllabus including their features and implications.	**Real world examples /case studies.**
		Winter Break: 30 December 2024 to 7 January 2025		
		School Reopens: 8 January 2025		
8. January 2025 (Up-to 31 January 2025	18	Revision `for Annual Exams	To make students understand the working and the key areas of statistics in real world application.	
		Syllabus Completion: 31 January 2025		
		Revision- Annual Examination: 3 February 2025 to 6 February 2025		
		Annual Examination: 7 February 2025 to 21 February 2025		

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XI	**Subject: Computer Science(083)**		**Name of the Subject Teacher: Ms. Vidhi Arora Hasija**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
I April 2024	9	Unit II: Computational Thinking and Programming-I ● Familiarization with the basics of Python programming: Introduction to Python, Features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens(keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments	To understand the features of the programming language python and to discriminate between the different programming languages. The students will learn how to use python through Python software.	Students will do hands-on in the lab and create their first program both in Shell mode and Script mode.
II May 2024	20	● Knowledge of data types: Number (integer, floating point, complex), boolean, sequence (string, list, tuple), None, Mapping(dictionary), mutable and immutable data types. ● Operators: arithmetic operators, relational operators, logical operators, assignment operators, augmented assignment operators, identity operators (is, is not), membership operators (in not in) ● Expressions, statement, type conversion, and input/output: precedence of operators, expression, and evaluation of an expression, type-conversion (explicit and implicit conversion), accepting data as input from the console and displaying output. ● Errors-syntax errors, logical errors, and run-time errors ● Flow of Control: introduction, use of indentation, sequential flow, conditional and iterative flow ● Conditional statements: if, if-else, if-elif-else	To understand all necessary terms of the python platform like indentation, variables, data types etc. To learn the various python operators used to create an expression and to understand the flow of programming language Students will be able to recognize and debug, the various errors generated while coding of the programs.	Activity Think-Play Share based on concept of Datatypes Practical implementation of python programming operators Practical implementation of basics of Python using conditional statements.
Summer Vacation: 30 May 2024 to 30 June 2024				

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

III July 2024	22	● Iterative Statement: for loop, range(), while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number, etc ● Pratical work of all topics covered so far	To understand the control & flow of programming through various conditional and iterative statements.	Creation of a small project based on basic Python programming using the concept of control statements
IV August 2024	19	● Strings: introduction, string operations (concatenation, repetition, membership and slicing), traversing a string using loops, built-in functions/methods–len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(),lstrip(), rstrip(), strip(), replace(), join(), partition(), split() ● Lists: indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loop, built-in functions/ methods–len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list. ● Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership and slicing); built in functions/methods – len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple	To learn the concept of storing multiple values in a single datatype. To learn the basic operation in Strings and Lists and Tuples .	Google form Quiz based on Strings, Tuple and List Practical implementation of strings, tuples and lists in python programming
Syllabus Completion : 30 August 2024 **Revision- Half Yearly Examination: 2 September 2024 to 9 September 2024** **Half Yearly Examination: 10 September 2024 to 27 September 2024** **Second Term Resumes: 30 September 2024**				
V October 2024	18	● Dictionary: introduction, accessing items in a dictionary using keys, mutability of a dictionary (adding a new term, modifying an existing item), traversing a dictionary, built in functions/ methods – len(), dict(), keys(), values(), items(), get(), update(), del(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), sorted()	To enhance problem solving and programming skills with extensive programming through Dictionary concept	Role Play Activity

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

VI November 2024	19	● Practical work of List, Tuple and Dictionary continued. ● Introduction to Python modules: Importing module using 'import ' and using from statement, importing math module (pi, e, sqrt(), ceil(),floor(), pow(), fabs(), sin(), cos(), tan()); random module (random(), randint(), randrange()), statistics module (mean(), median(), mode()). Presentation making on various encoding schemes.	To understand the concept of built in modules to introduce the concept of reusability of code	Practical implementation of modules through programs
VII December 2024	19	● Unit II: Computational Thinking and Programming-I ● Introduction to Problem-solving: Steps for Problem solving (Analyzing the problem, developing an algorithm, coding, testing, and debugging), representation of algorithms using flowchart and pseudocode, decomposition ● Unit I: Computer Systems and Organisation ● Basic computer organisation: Introduction to Computer System, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (bit, byte, KB, MB, GB, TB, PB) ● Types of software: System software (Operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler, and interpreter), application software ● Operating System(OS): functions of the operating system, OS user interface ● Boolean logic: NOT, AND, OR, NAND, NOR, XOR, NOT, truth tables and De Morgan's laws, Logic circuits	Writing of Algorithms to understand program. Making Flow charts and pseudo codes of various programs To recognize the various parts of a computer system and to understand the functionality of OS Real life case study questions based on problem solving Practical Draw and explain the IPO cycle and Memory chart in MSWord	Real life case study questions based on problem solving Draw and explain the IPO cycle and Memory chart in MSWord
Winter Break: 30 December 2024 to 7 January 2025				
VIII January 2025	18	● Number System: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems ● Encoding Schemes: ASCII, ISCII, and Unicode (UTF8, UTF32) Unit III: Society, Law and Ethics ● Digital Footprints ● Digital Society and Netizen: net etiquettes, communication etiquettes,	To understand the use of Boolean Logic and to convert one Number System to another. To understand the various encoding schemes.	Presentation making on various encoding schemes. Article Writing on Societal Impact of IT explaining Digital

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		social media étiquettes ● Data Protection: Intellectual property rights (copyright, patent , trademark), violation of IPR(plagiarism, copyright infringement, trademark infringement), open source software and licensing (Creative Commons, GPL and Apache) ● Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying ● Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying. ● Safely accessing web sites: malware, viruses, trojans, adware ● E-waste management: proper disposal of used electronic gadgets ● Indian Information Technology Act (IT Act) ● Technology & Society	Students will learn the Importance of IT, its Impact in our daily life and various cyber crimes To understand the need of cyber safety and how to reduce, reuse and recycle ewaste	footprints, society & Netizen, Data Protection, cyber crime etc. Debate on Pros and Cons of E-waste management
Syllabus Completion: 31 January 2025 **Revision Annual Examination :3 February 2025 to 6 February 2025** **Annual Examination : 7 February 2025 to 21 February 2025**				

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XI	**Subject: ARTIFICIAL INTELLIGENCE (843)**		**Name of the Subject Teacher: Ms. Ruchi Tyagi**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
01 APRIL	9 Days	**(PART B) Subject specific skills** **UNIT 1 –** **INTRODUCTION:** **ARTIFICIAL INTELLIGENCE FOR EVERYONE** •What is Artificial Intelligence? •Evolution of AI •Types of AI •Domains of AI •AI Terminologies •Benefits and limitations of AI	Students will be able to – • Communicate effectively about AI concepts and applications in written and oral formats. • Describe the historical development of AI. • Differentiate between various types and domains of AI, including their applications. • Recognize the key terminologies and concepts related to machine learning and deep learning. • Formulate informed opinions on the potential benefits and limitations of AI in various contexts. • Define and describe machine learning • Differentiate between structured and unstructured data • Describe how machine learning structures data • Describe how machine learning structures unstructured data • Describe how machine learning uses probabilistic calculation to solve problems • Describe three methods by which machine learning analyses data • Describe an ideal relationship between humans and machine learning	Categorize the given applications into the three domains IBM Skills Build – Introduction to AI
02 MAY	20 Days	**(PART B)Subject specific skills** **UNIT 3 –PYTHON PROGRAMMING** **Level 1 :**Basics of python programming,	Students will be able to – Explain the basics of python programming language and write programs with basic concepts of tokens.	Minimum five programs using operators, data types, control

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		character sets, tokens, modes, operators, datatypes, Control Statements **Level 2 :**CSV Files, Libraries – Numpy, Pandas, Scikit-learn	Use selective and iterative statements effectively. Gains practical knowledge on how to use the libraries efficiently.	statements (**Level 1**) • Minimum 5 programs on Numpy, Pandas, Scikit-learn (**Level 2**) IBM SkillsBuild - Python for Data Science
03 JULY	22 Days	**(PART B) Subject specific skills** **UNIT 2 - UNLOCKING YOUR FUTURE IN AI** • The Global Demand • Some Common Job Roles In AI • Essential Skills and Tools for Prospective AI Careers • Opportunities in AI across Various Industries **(PART A)** **UNIT 1: COMMUNICATION SKILLS – III**	Students will be able to – • Articulate the demand for AI professionals and the diverse career opportunities available in the field. • Identify the requisite skills and tools needed to pursue a career in artificial intelligence. • Understand the potential roles and responsibilities of AI professionals across different industries. • Explore resources for further learning and skill development in the field of AI. • Evaluate their own interests and skills to determine potential pathways for a career in AI.	• Identify ten companies currently hiring employees for in specific AI positions. • Note down the technical skills and soft skills listed by any two companies for the specific AI position. IBM Skills Build : Your Future in AI: The Job Landscape

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

04 AUGUST	19 Days	**(PART B)** **Subject specific skills** **UNIT 4 - INTRODUCTION TO CAPSTONE PROJECT** • Design Thinking • Empathy Map • Sustainable Development Goals • Capstone Project **(PART A)** **UNIT 2: SELF-MANAGEMENT SKILLS – III**	Students will be able to – Decompose any problem using the 5W1H method. Apply Design thinking methodology. Create empathy maps. Align problems to SDGs. Apply all the learnings in solving real world problems. Comfortably express their solution to a problem in non-technical words.	Create an empathy map for a given scenario Project Abstract Creation Using Design Thinking Framework IBM SkillsBuild - What is Design thinking?
REVISION-HALF YEARLY EXAMINATION : 2 SEPTEMBER 2024 – 9 SEPTEMBER 2024 **HALF YEARLY EXAM 10 SEPTEMBER- 27 SEPTEMBER 2024**				
05 OCTOBER	18 Days	**(PART B)Subject specific skills** **UNIT 5 - DATA LITERACY – DATA COLLECTION TO DATA ANALYSIS** • What is Data Literacy? • Data Collection • Exploring Data • Statistical Analysis of data • Representation of data, Python Programs for Statistical Analysis and Data Visualization • Introduction to Matrices • Data Pre-processing • Data in Modelling and Evaluation	Students will be able to – Explain the importance of data literacy in AI. Identify different data collection methods and their applications. Comprehend mathematical concepts related to matrices, its operations, and applications. Apply basic data analysis techniques to analyse data. Visualize the data using different techniques.	Identification of the level of measurement • Python programs to demonstrate the use of mean, median, mode, standard deviation and variance • Python programs to visualise the line graph, bar graph, histogram, scatter graph and

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		(PART A) **3: ICT SKILLS – III**		pie chart using matplotlib IBM SkillsBuild - Data Visualisation with Python (Modules 1,2,3)
06 NOVEMBER	19 Days	**(PART B) Subject specific skills** **UNIT 6 – MACHINE LEARNING ALGORITHMS** • Machine Learning in a nutshell • Types of Machine Learning • Supervised Learning • Understanding Correlation, Regression, Finding the line, Linear Regression algorithm • Classification – How it works, Types, k – Nearest Neighbour algorithm • Unsupervised Learning • Clustering – How it works, Types, k - means Clustering algorithm **(PART A)** **UNIT 4: ENTREPRENEURIAL SKILLS – III**	Students will be able to – Differentiate the different types of machine learning methods. They will be able to understand the concept behind each machine learning methods. Apply these methods to develop simple solutions for some day-to-day situations. Build up this knowledge to the next level to apply during Capstone Project development.	Calculation of pearson correlation coefficient in MS – Excel. Demonstration of Linear regression in MS – Excel / using python program. Demonstration of k – Nearest Neighbour using python program. Demonstration of k – means clustering using python program. IBM SkillsBuild - Machine learning with Python
07 DECEMBER	19 Days	**(PART B) Subject specific skills** **UNIT 7 – LEVERAGING LINGUISTICS AND COMPUTER SCIENCE**	Students will be able to – Develop a better understanding of the complexities of language and the challenges involved in NLP tasks.	Write an article on "IBM Project Debater –

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		• Understanding Human Language Complexity • Introduction to Natural Language Processing (NLP) - Emotion Detection and Sentiment Analysis, Classification Problems, Chatbot • Phases of NLP • Applications of NLP **(PART A)** **UNIT 5: GREEN SKILLS – III**	Learn new techniques and algorithms for NLP tasks.	Interesting facts" Create a chatbot on ordering ice-creams using any of the following platforms: Google Dialogflow Botsify.com Botpress.com IBM SKillsBuild - Natural Language Processing
08 JANUARY	18 Days	**(PART B) Subject specific skills** **UNIT 8 – AI ETHICS AND VALUES** • Ethics in Artificial Intelligence • The five pillars of AI Ethics • Bias, Bias Awareness, Sources of Bias • Mitigating Bias in AI Systems • Developing AI Policies • Moral Machine Game • Survival of the Best Fit Game	Students will be able to – • Demonstrate an understanding of the fundamental principles of ethics and gain insight into ethical considerations related to AI technologies. • Develop an understanding of AI bias, its sources, and its real-world implications, as well as the ethical considerations. • Identify and apply strategies for mitigating bias in AI systems to promote fairness and transparency in technology. • Recognize the significance of AI policies in promoting responsible, safe, and ethical use of AI technologies.	Summarize your insights and interpretations from the video "Humans need not apply." Activity: Role Play on biased AI systems IBM SkillsBuild - AI Ethics Comparative study of AI policies (that involve examining guidelines and

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

				principles) established by various organizations and regulatory bodies Understanding ethical dilemma using Moral machine Survival of the best fit

Syllabus Completion: 31 JANUARY, 2025
REVISION ANNUAL EXAMINATION 3 FEB – 6 FEB, 2025
ANNUAL EXAMINATION: 7 FEB 2025 – 21 FEB 2025

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XI	**Subject: Commercial Art 052**		**Name of the Subject Teacher: Surender Kumar**	
Module	**No. of Days**	**Chapters and Topics to be taught**	**Learning Objectives**	**Activity Planned/ Integration of Art**
April	9	Fundamentals of Visual Arts the element and principles of art	Elements of art are stylistic features that are included within an art piece to help the artist communicate. The seven most common elements include line, shape, texture, form, space, colour and value, with the additions of mark making, and materiality. Students Will be able to understand the principles of drawings, lines, colour & Different types of textures. Students will be able to develop Observation & Drawing Skills.	
May	20	Unit 1 prehistoric rock paintings	Period and Location Study and appreciation of following Pre-historic paintings: Wizard's Dance, Bhimbethaka	
July	22	Art of indus valley civilization	Harappa &Mohenjo-daro (Now in Pakistan) Ropar, Lothal, Rangpur, Alamgirpur, Kali Bangan,Banawali and Dholavira (in India) Dancing girl, Male Torso, Mother Goddess, Bull,	
August	19	Unit 2 Buddhist, Jain and Hindu Art (3rd century B.C. to 8th century A.D.) General introduction to art during mauryan shunga kushan and gupta period	Lion Capital from Sarnath (Mauryan period) Polished sandstone, Circa 3rd Century B.C. (Collection: Sarnath Museum, U.P.) Chauri Bearer from Didar Ganj (Yakshi) (Mauryan period) Polished sandstone Circa 3rd Century B.C.(Collection: Patna Museum, Bihar) Seated Buddha from Katra Mound, Mathura-(Kushan PeriodMathura Style) Red-spotted Sand Stone, Circa 3rd Century AD. (Collection: Govt. Museum, Mathura) Jain Tirathankara (Gupta period) Stone Circa 5th Century A.D. (Collection: State Museum, Lucknow U.P.)	

DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

October	18	Introduction to Ajanta Location	Period, No of caves, Chaitya and Vihara, paintings and sculptures,subject matter and technique etc	
November	19	Unit 3 A. Temple Sculpture, Bronzes and artistic aspects of IndoIslamic Architecture B. Bronzes	Artistic aspects of Indian Temple sculpture (6th Century A.D. to 13thCentury A.D.) Descent of Ganga, Trimuti, Lakshmi Narayana, Cymbal Player, Sun Temple, Mother and Child. Introduction to Indian Bronzes.	
December	19	Unit 3 C. Artistic aspects of the indo-Islamic architecture	Qutub Minar, Delhi Gol Gumbad of Bijapur	