Doon Public School

A New Generation Sr. Sec. School | Affiliated to CBSE
Sector 21, Panchkula - 134 112 (Haryana)

Class- XII (Science)
Syllabus for the Session 2025-26
English

Book Prescribed: NCERT

	Months	Content	Learning Outcomes
Term -I	**March - April & May**	Chapter No. 1: The Last Lesson (prose), Flamingo	**Students will be able to:** **Remember:** The theme and message and traits of Franz and M.Hamel **Understand:** The importance of one's own language, emotional state of M. Hamel **Apply:** Linguistic chauvinism and love for one's language in real life situation **Analyze:** The importance of a teacher in the life of a student
		Chapter No.2 : The Lost Spring(prose), Flamingo	**Students will be able to:** **Remember:** Traits of Sahib and Mukesh, theme and message of the chapter **Understand**: Harsh realities of slum children, importance of childhood and those traditions that condemn slum children to a life of exploitation **Apply:** The gained knowledge and understanding of character's situation into real life situation and be empathetic **Analyze:** The circumstances and situation of both the protagonists and that society and political class only add to the sufferings of the slum and poor children
		Chapter No. : My Mother at Sixty Six (Poem) Flamingo	**Students will be able to:** **Remember:** Theme, message and central idea of the poem **Understand:** Poetic devices used in the poem and that aging and death is inevitable **Apply:** The gained knowledge in cherishing the moments spent with loved ones and importance of living in present **Analyze:** The emotions and fear of losing the mother,bonding between mother- daughter, nostagic childhood memories
		Chapter No. : Keeping Quit (Poem)Flamingo	**Students will be able to:** **Remember:** Theme, message and central idea of the poem **Understand:** Poetic devices used, interpretation, importance of introspection **Apply:** Introspection, brotherhood, process of healing and nature being the supreme teacher in real life **Analyze:** The power of introspection and global brotherhood
		Chapter No 1 : The Third Level (Prose) Vistas	**Students will be able to:** **Remember:** The setting of the chapter, the chronological events of the story **Understand:** Psychological impact of world wars on people and concept of escapism through Charlie **Apply:** The gained knowledge through Charlie and Sam's character in understanding people's mental situation

			Analyze: Charlie's personality and impact of grandfather, pre and post world war situations, in shaping his personality
		Chapter No.2 : The Tiger King (Prose) Vistas	**Students will be able to:** **Remember:** Pre independence era of royal families, theme and message of the chapter **Understand:** The character traits of the King, his motto of life and impact of prophecy in king's life **Apply:** The gained knowledge in real life situation and how the king lived and died just to challenge prient's prophecy **Analyze:** The character sketch of the king and his minister
		Chapter No.3: Deep Water (Prose), Flamingo	**Students will be able to:** **Remember:** Autobiographical element of the author, theme, message and the chronological events of the chapter in detail **Understand:** That childhood fears must never be treated lightly, if not tackled properly they make deep inroads in one's phycology **Apply:** The instances in real life and overcome any hesitation or fear and success can be achieved at point of time in the life (Douglas) **Analyze:** The situation of Douglas underwater and his attempts to come on the surface
		Chapter No. A Thing of Beauty (poem) Flamingo	**Students will be able to:** **Remember:**The theme and message of the poem **Understand:** The healing power of Nature and that it always give solace **Apply:** The contextual knowledge of the poem in the real life situation and living a worthy life **Analyze:** The importance of Nature and the bounties we have
		Chapter No.3 : Journey to the End of the Earth(Prose) Vistas	**Students will be able to:** **Remember:** The geological events during Gondwana land, flaura and fauna of that time **Understand:**The importance of Antarctica region for the existence of human beings **Apply:**The information of the chapter in preserving and conserving polar regions to ultimately preserving Earth **Analyze:** The grave situation of climate impact and immediate steps to be taken by us
		Writing Skills: Notice and Job Application with resume and Letter to the Editor	**Students will be able to:** **Remember:** The format and structure **Understand:** The question to get the sender, receiver, and identify effective and non effective elements **Apply:** Writing skills in real life scenario for effective communication **Analyze:** The appropriate use of language
	June	**PERIODIC TEST-I**	
		Chapter No. 4: The Rattrap (Prose) Flamingo	**Students will be able to:** **Remember:** The chronological events of the fairytale story and traits of all the characters **Understand**: The metaphorical representation of rattrap **Apply:** The message and the moral of the story in real life ; convincing power **Analyze:** The fact that every human being has an essential goodness that can be awakened through understanding and love
		Chapter No. 5 : Indigo (prose) Flamingo	**Students will be able to:** **Remember:** political and social scenario(Bristish,

			sharecroppers),chronological events **Understand**: Gandhian philosophy, nonviolence, justice for opressed **Apply:** that every movement can be made people's movement if there is unbreakable trust and faith. **Analyze:** valuing the contribution of ordinary people in the freedom struggle
	July & August	Chapter No.6 : Poets and Pancakes (prose) Flamingo	**Students will be able to:** **Remember:** the theme message and traits of the Subbu **Understand:** the structure of the chapter, and that the course of the events is not in a storyline **Apply:** To get the glimpses of office politics prevailing at every work place and learn to avoid it do your work sincerly **Analyze:** The various personalities in the chapter and that it's a small world
		Chapter No.4 : The Enemy (Prose) Vistas	**Students will be able to:** **Remember:** The theme message and traits of the Dr. Sadao **Understand:** The difference between a responsible cititen , true patriot and an ethical professionalist **Apply:** Personal and professional ethics are different but sometimes you have to rise above all as a human being **Analyze:** That choices shape us as an individual
		Chapter No 5. : On the Face of It (Prose) Vistas	**Students will be able to:** **Remember:** The characterestics of Derry and Lamb **Understand:** The pain of physical handicapped is far less than the sense of of alienation they feel and society can help **Apply:** Being mindful and give space, opportunities , love, care to disabled people to help in their inclusion **Analyze:** The pain, agonyand challenges faced by disabled people
		Chapter No. : A Roadside Stand (poem) Flamingo	**Students will be able to:** **Remember:** Idea, theme and message of the poem **Understand:** The social division- poor and rich people **Apply:** the empathetic behaviour with others but not to involve to the extent wherein you suffer at the end **Analyze:** The easy lives of city dwellers and hardships in the lives of rural people
	August	**PERIODIC TEST-2**	
		Chapter No. 7 : The Inerview (Prose) Flamingo	**Students will be able to:** **Remember:** The various definations of Interviews given by different poets **Understand:** The conversation and interview pattern **Apply:** The art of framing good questions to get the desirable answer and make people confortable with your communication skills **Analyze:** The challenges faced by reporters or meia people
	September	**REVISION & TERM-I EXAMINATION**	

Physics

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
Term -1	**March - April & May**	Chapter 1: Electric Charges and Fields	**Students will be able to:** **Remember:** Electric charge, Coulomb's law, conservation of charge **Understand:** The principle of superposition, concept of electric field, field lines, and continuous charge distribution **Apply:** Gauss's theorem to calculate the electric field due to various symmetrical charge distributions **Analyze**: The behaviour of electric field lines in different situations
		Chapter 2: Electrostatic Potential and Capacitance	**Students will be able to:** **Remember:** Electric potential, potential difference, and capacitance **Understand:** Potential due to point charge, dipole, and system of charges; equipotential surfaces **Apply:** The gained knowledge to solve numerical problems on capacitors with/without dielectric **Analyze:** Electric potential energy of charge systems
		Chapter 3: Current Electricity	**Students will be able to:** **Remember:** Ohm's law, resistivity, conductivity **Understand:** Drift velocity, mobility, V-I characteristics **Apply:** Kirchhoff's rules and solve circuit problems , calculate power and energy **Analyze:** Internal resistance and temperature dependence of resistors
		Chapter 4: Moving Charges and Magnetism	**Remember:** Oersted's experiment, Biot-Savart law, Ampere's law. **Understand:** Magnetic field concepts and force on moving charges. **Apply:** Concept of magnetic field for solenoids, circular loops, and current-carrying conductors. **Analyze:** Current loop as a magnetic dipole and torque on loop and functioning of galvanometer and its conversion into ammeter and voltmeter
	June	**PERIODIC TEST-I**	
	July & August	Chapter 5: Magnetism and Matter	**Students will be able to:** **Remember:** Key terms Magnetic dipole and magnetization **Understand:** The concept of field lines and temperature dependence **Apply:** Concept of torque on dipole and field due to bar magnet **Analyze:** Magnetization behaviour of Dia-, para-, ferro-magnetic materials
		Chapter 6: Electromagnetic Induction	**Students will be able to:** **Remember:** Define electromagnetic induction, Faraday's and Lenz's Laws **Understand:** Concepts of induced emf, current, self and mutual induction. **Apply:** Concepts of induced emf and magnetic flux to solve numerical problems

			Analyze: Variations of induced current in different settings and construct real-life models illustrating electromagnetic induction
		Chapter 7: Alternating Current	**Students will be able to:** **Remember:** Key points as alternating current, peak and RMS values **Understand:** The concept of impedance, reactance, resonance **Apply:** The gained knowledge to use phasor diagrams and formulas in LCR circuit analysis **Analyze:** Power factor and wattless current scenarios
		Chapter No. 8: Electromagnetic Waves	**Students will be able to:** **Remember:** The identification of EM spectrum types and uses **Understand**: The concept of displacement current, transverse wave nature **Apply:** The gained knowledge to match spectrum with applications in real world **Analyze:** Properties of EM radiation and assess spectrum ranges for medical and technical uses
	August	**PERIODIC TEST-2**	
		Chapter No. 12: Atoms	**Students will be able to:** **Remember:** Alpha particles, structure of the atom, and energy levels **Understand:** Rutherford's experiment and Bohr's model **Apply:** The gained knowledge to use the expressions for radius, velocity, and energy of an electron in the nth orbit **Analyze:** Hydrogen spectra using Bohr's theory
		Chapter No. 13: Nuclei	**Students will be able to:** **Remember:** Nuclear structure, fission, and fusion **Understand:** Mass-energy relation, mass defect, and binding energy **Apply:** The concepts of $E = mc^2$, mass defect and binding energy formula to solve problems **Analyze:** Binding energy curve and its implications and the role of nuclear forces
	September	**REVISION & TERM-I EXAMINATION**	

Chemistry

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
Term -1	**March - April & May**	Chapter No. 1 : Solutions	**Students will be able to:** **Remember:** The types of solutions and concentration terms **Understand:** Raoult's law and colligative properties **Apply:** The knowledge to solve numerical problems on molarity and depression in freezing point **Analyse:** Deviations from ideal behaviour
		Chapter No. :2: Electrochemistry	**Students will be able to:** **Remember:** The concept of oxidation, reduction, and cell terminology **Understand:** The working of galvanic and electrolytic cells **Apply:** The knowledge to calculate EMF and use Nernst equation. **Analyse:** Standard electrode potentials to predict reactions

		Chapter No. 3: Chemical Kinetics	**Students will be able to:** **Remember:** The rate of reaction and related terms **Understand:** Rate laws and order of reactions **Apply:** The knowledge to solve numerical using integrated rate equations **Analyse:** Graphs and reaction mechanisms
	June	**PERIODIC TEST-I**	
	July & August	Chapter No. 4 : The d- and f- Block Elements	**Students will be able to:** **Remember:** The list of d- and f-block elements and their positions **Understand:** The properties like variable oxidation states and color **Apply:** The identification of trends across the series and predict reactions **Analyze:** The transition and inner transition elements
		Chapter No. 5 : Coordination Compounds	**Students will be able to:** **Remember:Define ligands, coordination number, and complex compounds.** **Understand:**Explain IUPAC naming and bonding in complexes. **Apply:**Write formulas and structures of coordination compounds. **Analyze:**Differentiate isomers and predict stability**.**
		Chapter No. 6: Haloalkanes and Haloarenes	**Students will be able to:** **Remember**: The definitions haloalkanes, haloarenes, and their types **Understand:** The physical properties and nature of C–X bond **Apply:** The prediction of products of nucleophilic substitution reactions **Analyze:** The reactivity of different halogen compounds
	August	**PERIODIC TEST-2**	
		Chapter No. 7 : Alcohols, Phenols and Ethers	**Students will be able to:** **Remember:** The classification assify alcohols, phenols, and ethers **Understand:** The preparation and properties of compounds **Apply:** The prediction products of dehydration and substitution. **Analyze:** The acidity and reactivity across the group
	September	**REVISION & TERM-I EXAMINATION**	

Biology

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
Term -1	**March - April & May**	Chapter No. 1 ; Sexual reproduction in flowering plants	**Students will be able to:** **Remember**:The structure of stamen, pistil .and different types of pollination, : autogamy,geitonogamy, xenogamy **Understand:**The structure of T.S. anther, anatropous ovule, process of microsporogenesis, megasporogenesis, artificial hybridization, double fertilization, post-fertilization events, apomixis, parthenocarpy and polyembryony **Apply:**The gained knowledge to prepare temporary slide of pollen germination and to understand plant breeding and crop

			improvement **Analyze**:The different types of pollination with their advantages and evaluate the role of artificial hybridization in plant breeding
		Chapter No. 2: Human reproduction	**Students will be able to:** **Remember:**The male and female reproductive systems, the role of their primary sex organs, accessory glands, accesory ducts and external genitilia **Understand:**The processes of spermatogenesis, oogenesis, mentrual cycle, fertilization, implantation and parturition **Apply:**The gained knowledge to identify slides of T.S. testis, T.S. ovaries and T.S. blastula and understand reproductive health and fertility **Analyze:** The difference between spermatogenesis and oogenesis. and the importance of reproductive health in maintaining overall health
		Chapter No. 3 : Reproductive health	**Students will be able to:** **Remember:** The meaning of reproductive health, problems faced and strategies to solve reproductive health problems **Understand**: The different methods of contraception, MTP, causes, symptoms, and treatment of STIs, and methods to have children like IVF, ZIFT, GIFT, IUT, ICSI, AI, IUI **Apply**: The gained knowledge of reproductive health to understand the impact of reproductive health issues on individuals and communities **Analyze**: The impact of reproductive health issues on individuals and communities and evaluate the importance of reproductive health education and awareness
		Chapter No. 4 : Principles of Inheritance and Variation	**Students will be able to:** **Remember:** The definition of inheritance and variation and Mendel's laws of inheritance **Understand:** The monohybrid and dihybrid crosses, evaluate phenotypic and genotypic ratio in different generations, incomplete dominance, co-dominance, sex- determination, genetic and chromosomal disorders **Apply**: The gained knowledge to predict the probability of different genotypes and phenotypes and to understand the inheritance of traits in humans **Analyze**: The different inheritance patterns and the impact of genetic variation on evolution and adaptation
		Chapter No.5 : Molecular Basis of Inheritance	**Students will be able to:** **Remember:** The structure and function of DNA and RNA **Understand**: The molecular mechanisms of DNA replication, Transcription and Translation, Genetic code, mutations, goals and objectives of Human Genome project, Regulation of gene expression- lac operon, DNA fingerprinting **Apply:** The gained knowledge of DNA structure and replication to understand genetic inheritance **Analyze:** The impact of genetic mutations on gene expression and protein function
	June	**PERIODIC TEST-I**	
	July & August	Chapter No.6 : Evolution	**Students will be able to:** **Remember:**The meaning evolution and its significance in biology.

			Understand: The Miller's experiment, homologous and analogous organs, Hardy-Weinberg principle, adaptive radiation, natural selection and human evolution. **Apply:**The gained knowledge of evolutionary principles to understand the adaptation of organisms to their environments and the evolutionary relationships between organisms. **Analyze:** Different theories of evolution and evaluate The importance of evolution in understanding the complexity of life on Earth.
		Chapter No.7 : Human Health and diseases	**Students will be able to:** **Remember:**The different organisms causing diseases in humans with their symptoms. **Understand:** The difference between innate, acquired immunity , active, passive immunity, autoimmunity ;the structure and function of antibody;Lymphoid organs, types, causes, diagnosis and treatment for Cancer, AIDS and the effects of different types of drugs on our body in detail. **Apply:**The gained knowledge to understand the importance of early detection and treatment. **Analyze:**The impact of lifestyle choices on human health and the importance of immunization in preventing diseases.
		Chapter No.8 : Microbes in Human Welfare	**Students will be able to:** **Remember:**The different types of microbes and their roles in human welfare **Understand:**The use of different microbes in industrial fermentation, household, sewage treatment, biogas **production,,** as biocontrol agents, as fertilizers, as chemicals, enzymes and bioactive molecules.. **Apply:**The gained knowledge to understand their role in food production and preservation,its applications in various industriesand their importance in environmental management. **Analyze:**The different types of microbes and their applications and their impact of microbes on human health and the environment.
		Chapter No.9 : Biotechnology-Principles and Variation	**Students will be able to:** **Remember:**The definition of key terms related to biotechnology,like Genetic engineering, Bioprocess engineering, Recombinant DNA technology, structure of DNA and its function **Understand:**The process of recombinant DNA technology, separation by gel electrophoresis, cloning vectors, amplification of gene of interest using PCR , upscaling by the use of Bioreactors and processing of gene products**.** **Apply:**The gained knowledge of biotechnology to understand its applications in various industries and evaluate its impact on society and the environment. **Analyze:**The different biotechnology applications and their potential benefits and risks.
	August	**PERIODIC TEST-2**	
		Chapter No. 10: Biotechnology and its applications	**Students will be able to:** **Remember:**The concept of Genetic engineering, Recombinant DNA technology and the applications of biotechnology in various fields like medicine, agriculture, industry**.** **Understand:**Explain the applications of biotechnology in production of insulin, gene therapy; genetically modified

			organisms and plants, concept of RNA interference, transgenes, cry genes, biopiracy and biosafety. **Apply:**The gained knowledge Use knowledge of genetic engineering to understand its potential applications in medicine, agriculture, and industry and develop solutions to real-world problems. **Analyze:**The impact of biotechnology on society and the environment.and evaluate the ethics of biotechnology applications and their potential consequences.
	September	**REVISION & TERM-I EXAMINATION**	

Mathematics(041)

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
TERM-I	**March - April & May**	Chapter No. Matrices	**Students will be able to:** **Remember:** The concept of matrices, Operations on matrices and its types : zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices **Understand:** The properties of addition, multiplication of matrices and scalar multiplication **Apply:** Addition and multiplication of matrices and scalar multiplication to real life problems **Analyze:** 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) ; Invertible matrices and proof of the uniqueness of inverse, if it exists
		Chapter No. Determinants	**Students will be able to:** **Remember:** The key terms : Determinant of a square matrix , minors and co-factors **Understand:** The method of finding the adjoin and inverse of a square matrix and number of solutions of system of linear equations ; Consistency and inconsistency of solutions **Apply:** The acquired knowledge to solve the system of linear equations in two or three variables (having unique solution) using inverse of a matrix **Analyze:** Adjoin and inverse of a square matrix.
		Chapter No. Relations and Functions	**Students will be able to:** **Remember:** Types of relations: reflexive, symmetric, transitive and equivalence relations **Understand:** Equivalence relations and Bijective mappings **Apply:** **Apply:** The gained knowledge to identify Equivalence relations and Bijective mappings **Analyze:** Different types of relations and functions
		Chapter No. Inverse Trigonometric Functions	**Students will be able to:** **Remember:** Inverse trigonometric functions , their domain and range **Understand:** The concept of Inverse Trigonometric Functions and their relationship to trigonometric functions **Apply:** The gained knowledge to solve problems in trigonometry and geometry

			Analyze: The restrictions on the domain and range of inverse trigonometric functions
	June	**PERIODIC TEST-I**	
		Chapter No 5. : Continuity and differentiability	**Students will be able to:** **Remember:** The concept of continuity and differentiability, chain rule, derivative of composite functions, derivatives of inverse trigonometric functions **Understand:** Derivative of implicit functions and the concept of exponential and logarithmic functions **Apply:** Differentiation rules to find derivatives of functions, including Trigonometric functions, Exponential and logarithmic functions, Composite functions **Analyze:** Functions for continuity and differentiability and identifying points of discontinuity
	July & August	Chapter No:6 Application of derivatives	**Students will be able to:** **Remember:** Key terms as rate of change, increasing and decreasing, maxima and minima **Understand:** The concept of rate of change and its relation to derivatives and the use of derivatives in finding maxima and minima **Apply:**The gained knowledge of derivatives to find equations of tangent and normal lines, and intervals of increasing and decreasing functions **Analyze:** Various functions using derivatives to identify- Critical points, Maxima and minima, Intervals of concavity
	August	**PERIODIC TEST-2**	
		Chapter No:7 Integrals:(Indefinite Integration)	**Students will be able to:** **Remember:** Key terms related to integration (indefinite integral, definite integral) **Understand:** Integration as inverse process of differentiation **Apply:** The gained knowledge to solve problems of Integration of variety of functions by substitution method, partial fractions and integration by parts **Analyze:** Different integration techniques and their applications
	September	**REVISION & TERM-I EXAMINATION**	

Computer Science

Book Prescribed: Computer Science with Python (Sumita Arora - Dhanpat Rai Pub.)			
	Months	**Content**	**Learning Outcomes**
Term -I	**March - April & May**	Chapter No. 8 : Computer network- I	**Students will be able to:** **Remember:** Fundamentals requirements and application of Networking **Understand:** Explain how data is transferred in a network. **Apply:** Demonstrate how to connect computers in a simple network. **Analyze:** Compare advantages and disadvantages of different network topologies.

		Chapter No. 9: Computer network- II	**Students will be able to:** **Remember:** Define networking devices such as router, switch, hub, modem, etc **Understand:** Illustrate how a basic network setup works. **Apply:** Apply appropriate protocols for specific network tasks (e.g., using FTP to transfer files).Set up a basic wireless network using a router and wireless devices. **Analyze:** Evaluate the suitability of various network protocols .
		Chapter No. 1 : Python Revision Tour -I	**Students will be able to:** **Remember: Token, Flow of control and looping statements** **Understand:** Describe the difference between entry-controlled & count-controlled loops, use of break and continue within loops and execution flow of conditional statements. **Apply:** Solve simple real-life problems using loops. **Analyze**: Debug and correct logic errors in programs involving loops or conditions. Trace the flow of execution in nested conditional or looping structures.
		Chapter No. 2: Python Revision Tour -II	**Students will be able to:** **Remember:** List, Tuple, strings, tuples, and dictionaries in Python and built-in functions. **Understand:** Explain how dictionaries store data in key-value pairs. Python code that uses loops to access elements in lists, tuples, or dictionaries. **Apply:** Python programs to perform basic operations (add, delete, modify) on lists, tuples, and dictionaries. **Analyze**: A given piece of code and predict the output or detect logical errors.
	June		**PERIODIC TEST-I**
	July & August	Chapter No. 3: Working with Function	**Students will be able to:** **Remember:** key terms related to functions such as function, parameter, argument, return value, etc. List different types of functions (e.g., built-in vs. user-defined).Recall the syntax for defining and calling a function in a programming language (e.g., Python, Java). **Understand:** how parameters and arguments work in function calls. **Apply:** Write simple functions to perform specific tasks (e.g., add two numbers, check even/odd, calculate area) **Analyze:** Identify errors or issues in function definitions or function calls. Break a complex problem into smaller sub-problems using functions.
		Chapter No. 4: Using Python Libraries	**Students will be able to:** **Remember: W**hat a Python library or module is. Recall common libraries such as math, random, and date time**.** **Understand:** Purpose of using libraries in Python programming. **Apply:** Use specific functions from libraries to solve problems (e.g., generating random numbers, performing mathematical calculations).Write simple programs using multiple library functions together. **Analyze**: Examine code to determine how library functions are being used.
		Chapter No. 10; Relational Databases	**Students will be able to:** **Remember**: key terms such as database, table, record, field, primary key, and foreign key. List common relational database management systems (RDBMS), e.g., MySQL, SQLite, PostgreSQL. Recall SQL commands like SELECT, INSERT, UPDATE, DELETE. **Understand:** Explain the structure of a relational database and how data is stored in tables. **Apply:** Create and modify simple relational database tables using

			SQL. Write and execute SQL queries to insert, retrieve, and manipulate data. Use primary keys and foreign keys to define relationships between tables. **Analyze:** Identify the relationship type (one-to-one, one-to-many, many-to-many) between tables.
		Chapter No. 12; Table Creation and data manipulation Commands	**Students will be able to:** **Remember:** SQL and its purpose. List common Data Definition Language (DDL) and Data Manipulation Language (DML) commands .Interpret the syntax of commands like CREATE TABLE, INSERT, UPDATE, DELETE, and SELECT. **Understand:** the difference between DDL and DML. Apply: Retrieve data using the SELECT command with different clauses (e.g., WHERE, ORDER BY). **Analyze:** The impact of constraints like PRIMARY KEY, NOT NULL, and UNIQUE on data integrity.
		Chapter No. 11; Simple Queries in SQL	**Students will be able to:** **Remember:** List basic SQL commands (e.g., SELECT, FROM, WHERE, ORDER BY, DISTINCT) **Understand:** Explain how the SELECT statement retrieves data from a database **Apply:** Write basic SQL queries to retrieve specific data from a table. **Analyze:** Conditions in WHERE clause to filter results appropriately.
		Chapter No. 13: Grouping Records , Joins in SQL	**Students will be able to:** **Remember:** The purpose of GROUP BY, HAVING, and different types of SQL joins (INNER, LEFT, RIGHT, FULL). **Understand:** Interpret the difference between WHERE and HAVING clauses. Distinguish among the various types of joins and when to use each. Interpret the results of grouped queries and joined tables. **Apply:** Solve real-life problems involving data summarization and table relationships. **Analyze:** Meaning of query performance and optimize SQL statements for better results.
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Physical Education

Book Prescribed: S.P Book			
	Months	**Content**	**Learning Outcomes**
Term -I	**March - April & May**	UNIT-1 Management of sporting events	**Students will be able to:** **Remember:** Key terms related to event management; Recall different types of sporting events and the stages of event planning **Understand:** The principles of event management within the context of sports and connection between sport, culture, and community development through events **Apply:** The gained knowledge to use management principles to design an organizational chart for a sports event ; apply risk management techniques to real-life sports scenarios **Analyze:** The effectiveness of past sporting events in terms of logistics, audience engagement, and media coverage and identify challenges in managing sporting events and propose solutions

		UNIT-2 Children and Women in Sports	**Students will be able to:** **Remember:** Policies and programs that support children and women in sports and define key terms related to gender equity and youth participation in sports **Understand**: The physical, psychological, and social benefits of sports for children and women and the developmental considerations in training children in sports **Apply:** Gained knowledge to design a basic training schedule tailored for children or female athletes and apply principles of inclusivity and safety in planning physical activities **Analyze:** The impact of social, cultural, and economic factors on women's involvement in sports and evaluate the effectiveness of government policies or school programs promoting sports among children and women
		UNIT-10 Training in sports	**Students will be able to:** **Remember:** The concept of term training in the context of sports, different types of training and basic training principles **Understand:** The objectives and importance of training in enhancing sports performance and the role of warm-up, cool-down, and recovery in training sessions **Apply:** The gained knowledge to design a basic weekly training plan for an athlete in a specific sport and demonstrate proper techniques for basic strength or endurance exercises **Analyze:** The common training errors or injuries , the training needs of athletes from different sports and the effectiveness of a given training plan using performance outcomes.
	June	**PERIODIC TEST-I**	
	July & August	UNIT-4 Physical education and sports for CWSN (Children with special needs -divyang)	**Students will be able to:** **Remember:** Meaning of CWSN and Divyang, list types of disabilities, recall organizations like Paralympics and Special Olympics, and name adapted sports for CWSN. **Understand:** The importance of inclusion in sports for CWSN, describe physical activity benefits, understand adapted education needs, and recognize the roles of schools, teachers, and families. **Apply**: Inclusive activities for children of all abilities, modify games for accessibility, demonstrate empathy and support, and promote team spirit and acceptance in integrated classes. **Analyze:** Compare traditional and inclusive physical education, analyze barriers for CWSN, evaluate adapted sports' role in inclusion, and reflect on successful CWSN athletes and programs.
		UNIT-5 Sports and Nutrition	**Students will be able to:** **Remember:** Meaning of nutrition and its role in sports, list essential nutrients and their sources, explain hydration importance, and identify common dietary supplements used by athletes. **Understand:** How nutrition affects athletic performance, detailing how carbohydrates, proteins, fats, and hydration support energy, muscle repair, endurance, and recovery through a balanced diet. **Apply:** Tailored nutritional and hydration plans for athletes, adjusting dietary strategies and supplements to support performance goals before, during, and after exercise. **Analyze:** Compare sports nutrition strategies, evaluate poor nutrition's impact, analyze diet adjustments for training and recovery, and assess risks and benefits of dietary supplements.
		UNIT-6 Test and measurement in sports	**Students will be able to:** **Remember:** Meaning of test, measurement, and evaluation in sports, recall testing importance, list common sports tests, and identify basic fitness components like strength, endurance, flexibility, speed, and agility.

			Understand: The purpose of fitness and skill tests, how results assess strengths and weaknesses, understand test validity and reliability, and interpret scores against standards. **Apply**: The fitness tests following proper methods and protocols, accurately record and evaluate results. Use test outcomes to design or modify training programs with techniques suited to the sport or goal. **Analyze:** Compare results of different tests to evaluate overall fitness and analyze their relation to sports performance. Evaluate test suitability for particular sports or groups and identify factors influencing test outcomes.
		UNIT-7 Physiology and injuries in sports	**Students will be able to:** **Remember:** Meaning of physiology, sports injuries, and key terms, and list major injury types such as soft tissue, hard tissue, and overuse injuries. Recall body systems involved in physical activity and identify basic first aid principles for common sports injuries. **Understand:** The physiological responses to exercise and understand the causes and symptoms of different types of injuries. Describe the body's recovery process and the importance of preventive measures such as warm-ups, cool-downs, and proper technique **Apply:** First aid techniques for minor injuries and demonstrate warm-up and cool-down exercises to prevent injuries. Use knowledge of body systems to manage fatigue and recovery, and recommend safe practices and equipment to minimize injury risk. **Analyze:** Compare acute versus chronic injuries and their effects on performance. Analyze causes such as improper technique and overtraining, evaluate physiological impacts on body systems, and assess injury-prone areas in sports with risk reduction suggestions.
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Early Childhood Care and Education

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
Term -I	**March - April & May**	Unit I Communication Skills	**Students will be able to:** **Remember:** The key components of effective communication **Understand**: The process and importance of communication skills **Apply:** Active listening and use appropriate communication techniques in group discussions **Analyze:** Real-life scenarios to identify communication gaps and suggest improvements
		Unit I Foundations of Child Development	**Students will be able to:** **Remember:** Important terms such as growth, maturation, and development **Understand:** The major factors influencing child development (heredity, environment, nutrition, etc.) **Apply:** The acquired knowledge to observe and record child behavior to identify developmental milestones **Analyze:** Case studies to identify delays or advancements in development

		Unit: II Self-Management Skills	**Students will be able to:** **Remember:** The meaning of terms like self-discipline, punctuality, self-motivation, and organizational skills. **Understand:** How good self-management influences a caregiver's efficiency, behavior, and relationships with children, parents, and colleagues **Apply:** Self-motivation and goal-setting skills while planning a class activity or maintaining a routine **Analyze:** How poor self-management may affect classroom behavior, children's learning, or teamwork
	June	**PERIODIC TEST-I**	
	July & August	Unit II Educational Thought of Key Theorists and Pioneers	**Students will be able to:** **Remember:** key theorists & pioneers educational ideas with the respective pioneers**.** **Understand**: The core principles of each theorist's approach to early childhood education. **Apply:** the teachings of Indian pioneers (like Gandhi or Gijubhai) in organizing culturally relevant learning experiences. **Analyze:** The relevance of each theorist's philosophy in today's early childhood care system.
		Unit III : Ch- Developmentally Appropriate Activities for Holistic Development	**Students will be able to:** **Remember:** the key domains of development (physical, cognitive, social, emotional, and language). **Understand:** the concept of holistic development and different areas of a child's growth. **Apply:** a simple activity plan targeting one or more developmental domains. **Analyze**: different activities based on the developmental needs they fulfill.
		Unit IV: Ch- Fostering Socio Emotional Competence in Children	**Students will be able to:** **Remember:** the key components of socio-emotional competence (e.g., self-awareness, empathy, emotional regulation, social skills). **Understand:** the importance of socio-emotional development in early years. **Apply:** techniques like positive reinforcement, emotion labeling, and active listening in real or simulated classroom settings. **Analyze**: the effectiveness of different classroom strategies for fostering emotional well-being.
		Unit III : ICT Skills	**Students will be able to:** **Remember:** basic ICT tools and terms (e.g., hardware, software, internet, email). **Understand:** the function of different ICT tools like MS Word, Excel, and presentation software. **Apply:** basic formatting tools in word processing software. **Analyze**: the effectiveness of different ICT tools for specific educational purposes.
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Library & Information Science

Book Prescribed: CBSE			
	Months	**Content**	**Learning Outcomes**
TERM-I	**March - April & May**	Chapter No. : 1 Communication Skills IV (Employability Skills)	**Students will be able to:** **Remember:** The do's and don't of good communication **Understand:** The importance of good communication to enhance personality **Apply:** The skill of communication for impactful conversation **Analyze:** The need of good communication in one's life
		Chapter No. : Library Management	**Students will be able to:** **Remember:** The fundamental facts and concepts related to library operations **Understand:** The concept of library management and stock verification **Apply:** The gained knowledge in practical or simulated tasks **Analyze:** The challenges faced in the management of library such as system break down, stock discrepancy and the ways to resolve those
		Chapter No. : Self-Management Skills-IV	**Students will be able to:** **Remember:** The basic facts, definitions, and concepts related to self-management **Understand:** The importance of self motivation and self management **Apply:** The techniques of self management in daily life situations **Analyze:** The complex behavior patterns or problems to understand causes and effects
	June	**PERIODIC TEST-I**	
	July & August	Chapter No. : Organization of Library Resources: Advanced	**Students will be able to:** **Remember:** The key concepts and terminology related to organizing library resources. **Understand:** The purpose and function of organizing systems in libraries. **Apply:** The knowledge in real-world or simulated cataloging and classification tasks. **Analyze:** The understanding to break down complex cataloging/classification processes and evaluate them.
		Chapter No. : Library and Information Services	**Students will be able to:** **Remember:** Key definitions "reference services," "current awareness service (CAS)," and "selective dissemination of information (SDI)." **Understand:**The concepts and interpret the purpose of services. **Apply:** The knowledge in practical scenarios involving information services **Analyze:** Break down systems/services and evaluate effectiveness.
		Chapter No. : ICT Skills-IV	**Students will be able to:** **Remember:** Common software applications used in libraries (e.g. Koha, DSpace) **Understand:** Comprehension of ICT concepts and how tools function **Apply:** ICT tools and skills to perform tasks or solve problems **Analyze**: ICT-related processes or systems for better understanding and decision-making.
		Chapter No. : Entrepreneurial Skills-IV	**Students will be able to:** **Remember:** The key concepts, definitions, and terminology related to entrepreneurship **Understand:** The entrepreneurial principles and strategies **Apply:** The entrepreneurial knowledge in real-life or simulated business scenarios

			Analyze: The components of entrepreneurial practices
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Marketing

Book Prescribed: CBSE Notes			
	Months	**Content**	**Learning Outcomes**
		Chapter No. : 1 Communication Skills IV (Employability Skills)	**Students will be able to:** **Remember:** The do's and don't of good communication **Understand:** The importance of good communication to enhance personality **Apply:** The skill of communication for impactful conversation **Analyze:** The need of good communication in one's life
		Chapter No. : Self-Management Skills-IV	**Students will be able to:** **Remember:** The basic facts, definitions, and concepts related to self-management **Understand:** The importance of self motivation and self management **Apply:** The techniques of self management in daily life situations **Analyze:** The complex behavior patterns or problems to understand causes and effects
TERM-I	**March - April & May**	Unit - Product	**Students will be able to:** **Remember:** The definition of product, product mix, and types of products; Features of consumer goods and industrial goods; Stages of the Product Life Cycle (PLC) **Understand:** The concept and importance of branding, labelling, and packaging; The role of product innovation in marketing success **Apply:** The acquired knowledge to classify real-world products into consumer and industrial goods and design a basic product portfolio for a new company **Analyze:** The product strategies of two competing brands; Reasons behind the success or failure of products and the impact of packaging and labelling on consumer choice
	June	**PERIODIC TEST-I**	
	**July & **	Unit - Price	**Students will be able to:** **Remember:** the definition of price, pricing objectives, and strategies. Recall types of pricing methods (Cost-plus, Competitive pricing). List factors affecting pricing decisions. **Understand:** how pricing affects market demand and positioning. Differentiation between penetration pricing and skimming pricing. Understand the psychological factors influencing pricing decisions. **Apply:** the gained knowledge to create a pricing plan for an imaginary product. Calculate the selling price based on cost and desired profit margin. Suggest pricing changes during different stages of product life cycle. **Analyze:** Compare success stories based on innovative pricing strategies. Evaluate how competition affects pricing flexibility. Analyze the effect of discount pricing on customer loyalty.

	August	Unit - Place	**Students will be able to:** **Remember:** the definition of channels of distribution. The List of types of intermediaries (Wholesaler, Retailer, Agent). Recall functions of distribution channels**.** **Understand:** the importance of physical distribution and logistics. Understand direct vs. indirect selling modes. Differentiate between online and offline distribution methods. **Apply:** the acquired knowledge to plan for a newly launched product. Identify the most suitable channel for different types of goods. Create a flow diagram of a supply chain network. **Analyze:** Compare distribution efficiency between traditional and digital modes. Evaluate logistics cost impact on pricing and profitability.
		Chapter No. : ICT Skills-IV	**Students will be able to:** **Remember:** Common software applications used in libraries (e.g. Koha, DSpace) **Understand:** Comprehension of ICT concepts and how tools function **Apply:** ICT tools and skills to perform tasks or solve problems **Analyze**: ICT-related processes or systems for better understanding and decision-making.
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Psychology

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
TERM-I	**March - April & May**	Chapter No. :1 Variations in Psychological attributes	**Students will be able to:** **Remember:** Psychological attributes and theories of intelligence **Understand**: The difference between aptitude ,interest and intelligence and interpret the meaning behind IQ scores and standardized testing **Apply:** The gained knowledge to describe real-life behaviours and understand their own strengths **Analyze:** How individual differences are shaped by biological as well as environmental influences and how cultural differences affect psychological testing
		Chapter No. : 2 Self and Personality	**Students will be able to:** **Remember:** Concept and definition of self-concept, personality, traits, types **Understand:** The difference between self and personality ; Components of self (self-esteem, self-efficacy, self-regulation) and the role of cultural and social factors in shaping personality **Apply:** The acquired knowledge to use psychological tests to assess personality and relate theories to real-life behavior or personal experiences **Analyze:** The strengths and limitations of personality assessments and how environment and heredity influence personality

		Chapter No. : 3 Meething life challenges	**Students will be able to:** **Remember:** Definitions: stress, coping, resilience; Types of stress: eustress, distress and key concepts: GAS model, stressors, defense mechanisms **Understand:** Psychological and physiological effects of stress ; Role of perception in stress experience **Apply:** Stress management techniques (meditation, time management, relaxation) and identify personal stressors and coping styles **Analyze:** The differenence between effective and ineffective coping strategies, and how individual differences (personality, gender, resources) affect stress response
	June	**PERIODIC TEST-I**	
	July & August	Chapter No. : 4 Psychological Disorders	**Students will be able to:** **Remember:** Definitions, symptoms, and types of psychological disorders. List classifications from DSM and ICD. **Understand**: Causes (biological, psychological, socio-cultural) of disorders. Understand the difference between normal and abnormal behavior. **Apply:** Symptoms in real-life case examples.Use diagnostic criteria to recognize mental health conditions. **Analyze:** Compare different models of abnormality (medical, psychological).Examine how culture and stigma affect diagnosis and treatment.
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	

Applied Mathematics (241)

Book Prescribed: NCERT			
	Months	**Content**	**Learning Outcomes**
Term -I		Chapter: Matrices	**Students will be able to:** **Remember:** The concept of matrices, Operations on matrices and its types : zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices **Understand:** The properties of addition, multiplication of matrices and scalar multiplication **Apply:** Addition and multiplication of matrices and scalar multiplication to real life problems **Analyze:** 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) ; Invertible matrices and proof of the uniqueness of inverse, if it exists

	March - April & May	Chapter :Determinants	**Students will be able to:** **Remember:** The key terms : Determinant of a square matrix , minors and co-factors **Understand:** The method of finding the adjoin and inverse of a square matrix and number of solutions of system of linear equations ; Consistency and inconsistency of solutions **Apply**: The acquired knowledge to solve the system of linear equations in two or three variables (having unique solution) using inverse of a matrix **Analyze:** Adjoint and inverse of a square matrix.
		Ch- Financial Mathematics	**Students will be able to:** **Remember:** The concept of perpetuity and sinking fund **Understand:** The difference between sinking fund and saving account and the concept of EMI **Apply:** The gained knowledge to calculate EMI using various methods and Compound Annual Growth Rate **Analyze:** Different investment options and the impact of interest rates on investments and loans
		Chapter No. :Numbers, Quantification and Numerical Applications	**Students will be able to:** **Remember:** The key terms modulus of an integer, congruence modulo **Understand:** The comparison between two statements/situations which can be compared numerically **Apply:** Modulus and conjugate to simplify complex expressions; the definition in various problems **Analyze:** The appropriateness of numerical methods for specific problems
	June	**PERIODIC TEST-I**	
	July & August	Chapter: Differentiation and its Applications	**Students will be able to:** **Remember:** Derivatives up to first order **Understand:** Differentiation of parametric functions and implicit functions up to second order **Apply:** The gained knowledge to solve simple problems related to increasing and decreasing behaviour of a function in the given interval. and find local maxima and local minima **Analyze:** The difference between marginal cost and marginal revenue
		Chapter : Linear Programming	**Students will be able to:** **Remember:** Definition of Decision Variable, Constraints, Objective function, Optimization and Non negative constraints **Understand:** The problem in terms of in equations **Apply:** Corner Point Method for the Optimal solution of LPP **Analyze**: Feasible and infeasible solutions
		Chapter : Time-based data	**Students will be able to:** **Remember:** Time series as chronological data **Understand:** Long-term tendency **Apply:** The gained knowledge to demonstrate the techniques of finding trend by different methods **Analyze:** Fitting a Straight-line trend and estimating the value
	August	**PERIODIC TEST-2**	
	September	**REVISION & TERM-I EXAMINATION**	