Class – XII (Science) (2025-26) <u>Detailed Syllabus - 2025 - 2026</u>

Subject ENGLISH CORE (301)

Class XII

Learning Outcomes The general objectives at this stage are to:

• listen and comprehend live as well as record in writing oral presentations on a variety of topics

• develop greater confidence and proficiency in the use of language skills necessary for social and academic purpose to participate in group discussions, interviews by making short oral presentation on given topics

• perceive the overall meaning and organisation of the text (i.e., correlation of the vital portions of the text)

• identify the central/main point and supporting details, etc., to build communicative competence in various lexicons of English

• promote advanced language skills with an aim to develop the skills of reasoning, drawing inferences, etc. through meaningful activities

• translate texts from mother tongue(s) into English and vice versa

• develop ability and acquire knowledge required in order to engage in independent reflection and enquiry

• read and comprehend extended texts (prescribed and non-prescribed) in the following genres: science fiction, drama, poetry, biography, autobiography, travel and sports literature, etc.

• text-based writing (i.e., writing in response to questions or tasks based on prescribed or unseen texts) understand and respond to lectures, speeches, etc. write expository / argumentative essays, explaining or developing a topic, arguing a case, etc. write formal/informal letters and applications for different purposes

- make use of contextual clues to infer meanings of unfamiliar vocabulary
- select, compile and collate information for an oral presentation
- produce unified paragraphs with adequate details and support
- use grammatical structures accurately and appropriately
- write items related to the workplace (minutes, memoranda, notices, summaries, reports etc.

• filling up of forms, preparing CV, e-mail messages., making notes from reference materials, recorded talks etc. The core course should draw upon the language items suggested for class IX-X and delve deeper into their usage and functions. Particular attention may, however, be given to the following areas of grammar:

• The use of passive forms in scientific and innovative writings.

• Convert one kind of sentence/clause into a different kind of structure as well as other items to exemplify stylistic variations in different discourses modal auxiliaries uses based on semantic considerations.

Term - 1

Month	Торіс
April	 My Mother at Sixty Six A Thing of Beauty A Roadside Stand Keeping Quiet Aunt Jennifer's Tigers Report Writing
May	 The Last Lesson Lost Spring Deep Water The Rattrap Article Writing
July	 Indigo The Interview Poets and Pancakes Going Places
August	 The Third Level Tiger king Letter Writing Notice Writing
September	 On the Face of It Revision ALS
Term - 2	
October	 The Enemy Journey to the End of the Earth
November	 Memories of Childhood Revision ALS
December	Pre-Boards
January	
February	Board Exam

ASSESSMENT PLANNER : SESSION 2025 - 2026

SUBJECT : ENGLISH CORE (301)

CLASS : XII

	MAX.	
TEST	MAR	SYLLABUS
	KS	
PERIODIC ASSESSEMEN T 1 MID TERM EXAMS	20 20 80	 My Mother at Sixty Six Keeping Quiet A Thing of Beauty Aunt Jennifer's Tigers A Roadside Stand Notice Writing My Mother at Sixty Six Keeping Quiet A Thing of Beauty Aunt Jennifer's Tigers A Roadside Stand The Last Lesson Lost Spring Deep Water The Rattrap The Indigo The Interview The Tiger King Going Places The Third Level Notice Writing Invitations & Replies Letters
		18. Job Applications
		19. Articles/Reports
PERIODIC ASSESSMENT 2	20	 Letter Writing Report Writing Invitations and Replies Journey to the End of the Earth
ANNUAL EXAMS/ PRE BOARD	80	FULL SYLLABUS (Flamingo + Vistas)

Class 12 - Mathematics(2025-26) LEARNING OUTCOMES

Higher secondary students are increasingly expected to engage in mathematical practices to help develop mathematical habits of their minds

The learners may be provided with opportunities individually or in groups and encouraged to think holistically. The student will be able to :

- Identify different types of relations and functions.
- explore the values of different inverse trigonometric functions
- Evolve the idea of matrices as a way of representing and simplifying mathematical concepts.
- Evaluate determinants of different square matrices using their properties.
- Demonstrate ways to relate differentiability and continuity of a function with each other.
- Develop the processes in Integral calculus based on the ideas of differential calculus learnt earlier. Apply the concepts of Integral calculus to calculate the areas enclosed by curves.
- Develop the concepts of differential equations using the ideas of differential
- Constructs the idea of vectors and their properties and relates them to earlier learnt concepts in different areas of mathematics such as geometry, coordinate geometry etc.
- Calculate conditional probability of an event and uses it to evolve Baye's theorem and multiplication rule of probability. Determine mean and variance of a probability distribution using the concept of random variables

MONTH	TOPIC			
	Ch-5 Continuity and Differentiability			
April	• Continuity and differentiability,			
&	• Derivative of composite functions, chain rule.			
May	• Derivative of inverse trigonometric functions like sin ⁻¹ x, cos ⁻¹ x and tan ⁻¹ x, Derivative of implicit functions. Concept of exponential and logarithmic functions.			
	• Derivatives of logarithmic and exponential functions. Logarithmic differentiation, Derivative of functions expressed in parametric forms. Second order derivatives			
	Ch-2 Inverse trigonometric functions			
	• Definition, range, domain, principal value branch.			
	• Graphs of inverse trigonometric functions.			
	Ch-6 Application of derivatives			
	Rate of Change			
July	Ch-6 Application of Derivatives			
	 Increasing/Decreasing functions, 			
	Maxima and Minima (first derivative test motivated geometrically and second derivative			
	test given as a provable tool). Simple problems (that illustrate basic principles and			
	understanding of the subject as well as real-life situations).			
	Cn-/ Integration			
	• Integration as inverse process of differentiation.			
	• Integration of a variety of functions by substitution, by partial fractions and by parts Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals			
	and evaluation of definite integrals.			
August	Ch-8 Application of Integrals			
	• Applications in finding the area under simple curves, especially lines, circles/			
	parabolas/ellipses (in standard form only)			
	Ch-9 Differential Equations			
	• Definition, order and degree ,General and particular solutions. Solution of differential equations by method of separation of variables, homogeneous differential equations of first order and first degree. Solutions of linear differential equation			
	order and mist degree. Solutions of mical unrefential equation .			

September	Ch-12 Linear Programming
-	• Introduction, related terminology such as constraints, objective function, optimization,
	graphical method of solution for problems in two variables, feasible and infeasible regions
	(bounded or unbounded).
October	Ch-10 Vectors
	• Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors ,addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.
	Ch-11 Three Dimensional Geometry
	• Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.
	Ch-13 Probability
	• Conditional probability, multiplication theorem on probability, independent events, total
	probability, Bayes' theorem, Random variable and its probability distribution, mean of
	random variable.
November	Ch-3 Matrices
	• Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition and multiplication and multiplication with a scalar. Invertible matrices and proof of the uniqueness of inverse, if it exists: (Here all matrices will have real entries).
	Ch-4 Determinants
	• Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.
	Ch-1 Relations and Fuctions
	• Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.
December	Revision & Pre Board 1
January	Pre Board II
February	

ASSESSMENT PLANNER : SESSON 2025 - 2026

SUBJECT : Mathematics

CLASS : XII

TEST	MAX. MARKS	SYLLABUS
PERIODIC ASSESSEMENT 1	20	Inverse trigonometryContinuity and differentiability
MID TERM EXAMS	80	 Inverse trigonometry Continuity and differentiability Application of derivatives Integration Application of Integration Differential equation Linear programming problems
ANNUAL EXAMS	80	 Relation and Functions Inverse trigonometry Matrices Determinants Continuity and Differentiability AOD Integration AOI Differential equations Vectors 3D Linear programming problems Probability

DETAILED SYLLABUS FOR CLASS XII D (2025- 26) SUBJECT:: PHYSICS

Learning Outcomes: study of physics will help students to -

- 1) Develop scientific temper and scientific attitude.
- 2) Develop a basic conceptual understanding of content and acquire understanding of key concepts.
- 3) Apply the concept of integration and differentiation.
- 4) Understand the importance of semiconductor in today's world.
- 5) Develop the skill in performing experiments, tabulating observations, plotting of graph and inferences from same .
- 6) Realize that physics is interlinked with Maths and chemistry.

Month	Торіс
April	Chapter – Electrostatic
	• electric charges and their properties
	• electric field and electric field lines
	• electric dipole and field due to an electric dipole.
	Gauss Theorem and its applications

	• electric potential and its relation to electric field
	• electric capacitors, grouping of capacitors and energy stored in capacitors.
May	Chapter- Current Electricity
	• electric current , drift velocity of electrons , relaxation time
	• Ohm's law and expression of resistance.
	Combination of resistances
	• net emf and resistance when cells of different internal resistance are in series and parallel.
	• Kirchhoff's laws and its applications.
	• Wheatstone bridge principal.
July	Chapter - Magnetic Effects Of Electric Current
	• magnetic field and Lorentz force .
	• Biot savart law and its applications
	• Ampere's circuital Law and field due to a solenoid
	• moving coil galvanometer
	Chapter – Magnetism
	• field due to bar magnet and field lines
	• torque on a bar magnet placed in uniform magnetic field
	• different magnetic materials – dia, para and ferromagnetic
August	Chapter- Electromagnetic Induction and Alternating Current
	• Electromagnetic Induction
	• self induction
	• mutual induction
	• mean and rms value of Alternating Current
	• A.C. source attached to resistor, inductor and capacitor.
	• LCR circuit and impedance
	Chapter – Electromagnetic Waves
September	Revision
	Mid Term Exam
	Chapter – Optics
October	Chapter- Optics
	Ray Optics- refraction through spherical surface, lens makers formula, refraction through prism, Dispersion of light
	Wave Optics- interference and diffraction of light.
	Chapter – Dual Nature of matter
	Photo electric effect

Different models of atoms, limitations of Rutherford and bohr model	
	Chapter – semiconductor
	Intrinsic and extrinsic, p and N type, diode and rectifier.
December	Pre board exam
January	Practical Exam

ASSESSMENT PLANNER SUBJECT: PHYSICS (2025-26)

Exam	Topic	
Periodic test 1	Electrostatic	
(20 marks)	Ch- Electric charge and Electric field	
	Ch- Electric potential and capacitance	
Mid Term Exam	Ch1- Electric charge and Electric field	
(70 marks) Ch 2- Electric Potential and capacitance		
	Ch3- Current Electricity	
	Ch4- Magnetic Effects Of Electric Current	
	Ch5- Magnetism	
	Ch6- Electromagnetic Induction	
	Ch7- Alternating Current	
	Ch8- Electromagnetic Waves	
Pre board Exam	Ch1- Electric charge and Electric field	
(70 marks)	Ch 2- Electric Potential and capacitance	
	Ch3- Current Electricity	
	Ch4- Magnetic Effects Of Electric Current	
	Ch5- Magnetism	
	Ch6- Electromagnetic Induction	
	Ch7- Alternating Current	
	Ch8- Electromagnetic Waves	
	Ch9- Ray Optics and optical instruments	
	Ch 10- Wave Optics	
	Ch 11- Dual Nature Of Matter and Radiation	
	Ch12- Atoms	
	Ch- 13 Nuclei	
	Ch14- Semiconductors	
1		

DETAILED SYLLABUS

CHEMISTRY (043) CLASS XII (2025-2026)

LEARNING OUTCOMES

A study of chemistry will inculcate among the pupils a few skills and thus, at the end of the session the students will be:

- Develop a basic conceptual knowledge and understanding of content and acquire a clear understanding of the laws, principles basic facts, and key concepts.
- Apply the knowledge gained to define and differentiate between terms and key concepts.
- Develop a better insight into the subject and thus encourage them to do further reference reading.
- Develop aesthetic sensibilities, process skills, creative and critical thinking, decision making, communication, analytical, problem solving and drawing skills.
- Develop investigatory skills, the skills in performing experiments, tabulating observations, plotting graphs, and drawing inferences.
- Develop a scientific temperament and appreciation of scientific facts, a spirit of enquiry, a systematic, creative, ethical, and meticulous approach towards problem solving.
- Apply the knowledge gained to daily life situation and problems, thus making chemistry learning more relevant, meaning, and interesting.
- Apply the knowledge gained to integrate physical principles with music, dance, art, sports, tricks, and magic.
- Be able to collaborate, innovate, organize, brainstorm, and communicate new ideas and technology.
- Contribute significantly in, the improvement of the quality of life.

Theory Paper Marks: 70

Units	Topics	Marks	
VI	Haloalkanes and Haloarenes.	6	
VII	Alcohols, Phenols and Ethers	6	
VIII	Aldehydes, Ketones and Carboxylic Acids	8	
IX	Amines	6	
X	Biomolecules	7	
I	Solutions	7	
II	Electrochemistry	9	
III	Chemical Kinetics	7	
IV	d and f Block Elements	7	
V	Coordination Compounds	7	
	Total	70	

COURSE CONTENT

	Unit VI	Haloalkanes and Haloarenes. The topics in this unit are:	
April		Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions.	
		Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	
April /May	Unit VII	Alcohols, Phenols and Ethers The topics in this unit are:	
		Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol.	
		Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols.	
Мау	Unit VIII:	Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.	
		Aldehydes, Ketones and Carboxylic Acids The topics in this unit are:	
		Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.	
		Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.	
July	Unit X	Biomolecules The topics in this unit are:	
		Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates.	
		Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes.	
		Hormones - Elementary idea excluding structure. Vitamins - Classification and functions. Nucleic Acids: DNA and RNA.	
August	Unit I	Solutions The topics in this unit are:	
		Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law,	
		colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.	

August	Unit II	Electrochemistry The topics in this unit are:		
		Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel		
		cells, corrosion.		
	Unit VI,	Revision and Mid term exams		
September	VII,VIII,IX,X			
Octobor	unit III	Chamical Kinetica The topics in this unit are:		
October		Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.		
	Linit IV			
October	Officity	d and f Block Elements The topics in this unit are:		
		General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of $K_2Cr_2O_7$ and KMnO ₄ .		
		Lanthanoids – Electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences.		
		Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids		
	Unit V:	Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, the importance of coordination compounds (in qualitative analysis, extraction of metals and biological system)		
November				
November		REVISION		
December & January	UNIT I to X			

ASSESSMENT PLANNER 2025-26

SUBJECT – CHEMISTRY

CLASS XII D

TEST	SYLLABUS
First pariodic Tast	Halolkanes and Haloarenes
Class Test	Alcohols, Phenols and Ethers
Mid term exam	1.Halaolkanes and Haloarenes
	2. Alcohols, Phenols and Ethers
	3. Aldehydes, Ketones and Carboxylic Acids
	4. Amines
	5. Biomolecules
	6. Solutions
Second periodic test	1.Aldehydes, Ketones and Carboxylic Acids
-	2. Electro Chemistry
Class Test	Coordination Compounds
Annual Exam	Full Syllabus
Pre board examination	Full Syllabus

DETAILED SYLLABUS 2025-26, CLASS XII D – BIOLOGY

LEARNING OUTCOMES:

Promote understanding of basic principles of Biology. Encourage learning of emerging knowledge and its relevance to individual and society. Promote rational/scientific attitude towards issues related to population, environment and development. Enhance awareness about environmental issues, problems and their appropriate solutions. Create awareness amongst the learners about diversity among the learners, about the diversity in the living organisms and developing respect for other living organism. Appreciate that the most complex biological phenomenon is built on essential simple process.

MONTH:	TOPIC:
March	Chapter 1. Sexual reproduction in flowering plants. Pre-fertilization-structure and events; double fertilization;
	Chapter 1. Continuing Post fertilization events- development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; significance of seed dispersal and fruit formation.
April & May	Chapter 4. Principles of Inheritance and Variation. Mendelian inheritance; deviations from Mendelism- incomplete dominance, co dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; sex determination- in humans, birds and honey bee; linkage and crossing over; sex linked inheritance- haemophilia, colour blindness; Mendelian disorders in humans- thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

	Chapter 6. Evolution What is adaptive radiation? Biological evolution and evidences for biological evolution; Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution- variation and natural selection with examples, types of natural selection; gene flow and genetic drift; Hardy-Weinberg principle; adaptive radiation; human evolution.
	Chapter 7. Human Health and Diseases. Pathogens; parasites causing human diseases and their control; Basic concepts of immunology- vaccines; cancer, HIV and AIDS; Adolescence- drug and alcohol abuse.
	Chapter 8. Microbes in human welfare. Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.
July	Chapter 5. Molecular Basis of inheritance. Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; transcription, genetic
	code, translation, gene expression and regulation – lac operon; Genome, Human and rice genome projects; DNA finger printing.
	Chapter 12. Ecosystem Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.
August	Chapter 9. Biotechnology- Principles and Processes. Genetic Engineering.
August	Chapter 10. Biotechnology and its Applications. Application of Biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms – Bt crops; transgenic animals; biosafety issues, biopiracy and patents.
September	Revision Mid Term Examination
October	Chapter 2. Human Reproduction. Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis- spermatogenesis and oogenesis; menstrual cycle; fertilization, embryo development till blastocyst formation, implantation; pregnancy and placenta formation; parturition; lactation.
	Chapter 3. Reproductive Health. Need for reproductive health and prevention of Sexually transmitted diseases (STDs); birth control- need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies- IVF, ZIFT, GIFT.

	Chapter 11. Organisms and Populations.	
	Population interactions – mutualism, competition, predation, parasitism, population attributes-	
November	growth, birth rate and death rate, age distribution.	
	Chapter 13. Biodiversity and its Conservation. Biodiversity- Concept, patterns, importance; loss of biodiversity; conservation; hotspots; endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wild life, sanctuaries and Ramsar site. Revision.	
December	Pre Board Examination.	
January	Preparation for CBSE Board Examination.	

ASSESSMENT PLANNER FOR CLASS XII D BIOLOGY, 2025-26

Periodic Assessment 1: Chapter 1. Sexual Reproduction in flowering plants Chapter 4. Principles of inheritance (Mendel's law of inheritance)

First Term Practical Examination and Viva voce

Midterm Examination: Chapter 1. Sexual reproduction in flowering plants.

Chapter 4. Principles of inheritance.

Chapter 6. Evolution

Chapter 7. Human health and diseases.

Chapter 8. Microbes in human welfare.

Chapter 5. Molecular basis of inheritance.

Chapter 9. Biotechnology – Principles and Processes.

Chapter 10. Biotechnology and its applications.

Periodic Assessment 2: Chapter 2. Human Reproduction.

Chapter 3. Reproductive health.

Preboard Practical Exam and Viva voce.

Pre – Board Examination: Chapter 1. Sexual reproduction in flowering plants.

Chapter 2. Human Reproduction.

Chapter 3. Reproductive health.

Chapter 4. Principles of inheritance.

Chapter 5. Molecular basis of inheritance.

Chapter 6. Evolution.

Chapter 7. Human health and diseases.

Chapter 8. Microbes in human welfare.

Chapter 9. Biotechnology – Principles and Processes.

Chapter 10. Biotechnology and its applications.

Chapter 11. Organisms and Populations.

Chapter 12. Ecosystem.

Chapter 13. Bio-diversity and its conservation.

Detailed Syllabus of Computer Science(083) Class XII (2025-26)

1 st Term	(March-September)
March	 UNIT I : Computational Thinking and Programming – 2 Revision of the basics of Python covered in Class XI.
	Unit II: Computer Networks
	• Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET, INTERNET)
	• Data communication terminologies: concept of communication, components of data communication (sender, receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching)
	• Transmission media: Wired communication media (Twisted pair cable, Co-axial cable, Fiber- optic cable), Wireless media (Radio waves, Micro waves, Infrared waves)
<u>April – Ma</u>	 Unit II: Computer Networks Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card)
	• Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree)
	• Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP
	• Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting
	UNIT I: Computational Thinking and Programming – 2
	Functions:types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope)
	Unit III: Database Management
	 Database concepts: introduction to database concepts and its need Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)
	 Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian product on two tables, equi-join and natural join Group formation for Board Project and detailed discussion on selection of project title, partners and implementation of it for Board Practical exam Synopsis submission of Board Project by each group

** Detailed Assignment on the above topics given as Summer break holiday homework.

July UNIT 1: Computational Thinking and Programming - 2 (Continued.....)

• Interface of python with an SQL database: connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries.

Board Project: The aim of the class project is to create something that is tangible and useful using Python file handling/ Python-SQL connectivity. This should be done in groups of two to three students and should be started by students at least 6 months before the submission deadline. The aim here is to find a real world problem that is worthwhile to solve. Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves. The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects.

August UNIT 1: Computational Thinking and Programming - 2 (Continued.....)

- Introduction to files, types of files (Text file, Binary file, CSV file), relative and absolute paths
- Text file: opening a text file, text file open modes (r, r+, w, w+, a, a+), closing a text file, opening a file using with clause, writing/appending data to a text file using write() and writelines(), reading from a text file using read(), readline() and readlines(), seek and tell methods, manipulation of data in a text file
- Binary file: basic operations on a binary file: open using file open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file

September

• Revision

2nd Term	(October -February)
<u>October</u>	UNIT 1: Computational Thinking and Programming – 2
	• CSV file: import csv module, open / close csv file, write into a csv file using writer(),writerow(),writerows() and read from a csv file using reader()
	• Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.
	• Exception Handling: Introduction, handling exceptions using try-except-finally blocks
	• Assessment of raw formation of Board project source code with/without bugs
	• Detailed assignment on the whole syllabus for revision.
***Final B	oard Project Submission (The Source Code), Demonstration and its Assessment
November	

- Revision
- Board Project Report file submission and Final Assessment

ASSESSMENT PLANNER

SUBJECT: Computer Science(083)

CLASS: XII

TEST	SYLLABUS
Periodic Test – 1 20 Marks	 REVISION OF PYTHON COVERED IN CLASS XI COMPUTER NETWORKS FUNCTIONS
Revision Test 20 Marks	 DATABASE CONCEPTS RELATIONAL DATABASE MODEL SQL FILE HANDLING(TEXT FILE,BINARY FILE)
Mid Term Exam Theory / Practical 70 / 30	 REVISION OF PYTHON COVERED IN CLASS XI COMPUTER NETWORKS FUNCTIONS DATABASE CONCEPTS RELATIONAL DATABASE MODEL SQL FILE HANDLING(TEXT FILE, BINARY FILE)
Periodic Test – 2 20 Marks	1. DATA-STRUCTURES 2. EXCEPTION HANDLING
Pre-Board Examination Theory / Practical 70 / 30	COMPUTER SCIENCE WITH PYTHON NCERT TEXTBOOK(as reference) & SULTANCHAND & SONS(as main course book)

PSYCHOLOGY

Subject Code – 037

Classes XII (2025-26)

one Theory Paper		Marks: 70	
Units	Topics	Marks	
Ι	Variations in Psychological Attributes	13	
II	Self and Personality	13	
III	Meeting Life Challenges	9	
IV	Psychological Disorders	12	
V	Therapeutic Approaches	9	
VI	Attitude and Social Cognition	8	
VII	Social Influence and Group Processes	6	
	Total	70	

Learning Objectives

• To help students understand the nature of psychological knowledge and its relevance to different aspects of life.

• To encourage students to be observant, socially aware, and reflective.

• To reduce stigma and increase awareness of psychological well-being by educating students about mental health.

• To help students understand their own thoughts, emotions and behaviors fostering personal growth and resilience, preparing them to become responsible global members of society.

COURSE CONTENT		
Month	Торіс	
Anvil	Unit 1 Variations in Psychological Attributes	
Арги	The topics in this unit are:	
	 Introduction Individual Differences in Human Functioning Assessment of Psychological Attributes Intelligence Theories of Intelligence: Psychometric Theories of Intelligence, Information Processing Theories, Theory of Multiple Intelligences, Triarchic Theory of Intelligence, Planning, Attention-Arousal and Simultaneous Successive Model of Intelligence Individual Differences in Intelligence Individual Differences in Intelligence Emotional Intelligence Special Abilities: Aptitude: Nature and Measurement Creativity 	
May/ July	Unit II Self and Personality The topics in this unit are:	
	 Introduction Self and Personality Concept of Self Cognitive and Behavioural Aspects of Self Culture and Self Concept of Personality Major Approaches to the Study of Personality Type Approach Trait Approach Psychodynamic Approach Behavioural Approach Cultural Approach Cultural Approach 	

	8. Assessment of Personality	
	a. Self-report Measures	
	b. Projective Techniques	
	c. Behavioural Analysis	
July	Unit III Meeting Life Challenges	
·	The topics in this unit are:	
	 Introduction Nature, Types and Sources of Stress Effects of Stress on Psychological Functioning andHealth Stress and Health General Adaptation Syndrome Stress and Immune System Lifestyle Coping with Stress Stress Management Techniques Promoting Positive Health and Well-being Stress Resistant Personality Life Skills Positive Health 	
July/August	Unit IV Psychological Disorders	
	1 Introduction	
	 Concepts of Abnormality and Psychological Disorders Historical Background Classification of Psychological Disorders Factors Underlying Abnormal Behaviour Major Psychological Disorders Anxiety Disorders Obsessive-Compulsive and Related Disorders Trauma-and Stressor-Related Disorders Somatic Symptom and Related Disorders Dissociative Disorders Depressive Disorder Bipolar and Related Disorders Schizophrenia Spectrum and Other PsychoticDisorders 	
	 Neurodevelopmental Disorders Disruptive, Impulse-Control and Conduct Disorders Feeding and Eating Disorders Substance Palated and Addictive Disorders 	

August	Unit V Therapeutic Approaches	
8	The topics in this unit are:	
	 Nature and Process of Psychotherapy Therapeutic relationship Types of Therapies Psychodynamic Therapy Behaviour Therapy Cognitive Therapy Cognitive Therapy Humanistic-Existential Therapy Biomedical Therapy Alternative Therapies Rehabilitation of the Mentally Ill 	
October	Unit VI Attitude and Social Cognition	
	The topics in this unit are:	
	 Introduction Explaining Social Behaviour Nature and Components of Attitudes Attitude Formation and Change Attitude Formation Attitude Change Attitude-Behaviour Relationship Prejudice and Discrimination Strategies for Handling Prejudice 	
November	Unit VII Social Influence and Group Processes	
itovember	The topics in this unit are:	
	 Introduction Nature and Formation of Groups Type of Groups Influence of Group on Individual Behaviour Social Loafing Group Polarisation 	
December	Pre-Board	

Practical Marks 30

- 5 Psychological Test
- 1 Case Profile

Prescribed Books:

1. Psychology, Class XII, Published by NCERT

PSYCHOLOGY - ASSESSMENT PLANNER -2025-26

XII ABD

TEST	SYLLABUS
PA 1 (20 Marks)	Unit -1 Variations in Psychological Attributes Unit – 2 Self and Personality
MID TERM EXAM (70 Marks)	Unit -1 Variations in Psychological Attributes Unit – 2 Self and Personality Unit – 3 Meeting Life Challenges Unit – 4 Psychological Disorders Unit – 5 Therapeutic Approaches
PRE-BOARD (70 Marks)	Unit -1 Variations in Psychological Attributes Unit – 2 Self and Personality Unit – 3 Meeting Life Challenges Unit – 4 Psychological Disorders Unit – 5 Therapeutic Approaches Unit – 6 Attitude and Social Cognition Unit – 7 Social Influence and Group processes

DETAILED SYLLABUS OF PHYSICAL EDUCATION (048) CLASS XII (2025-26)

Learning Outcomes

Physical Education plays a key role in promoting holistic child development, encompassing physical, intellectual, emotional, social, personal, and character growth. It encourages a positive perspective toward physical education as a profession while equipping individuals with skills for organizing sports tournaments and enhancing motor abilities such as strength, speed, endurance, coordination, and flexibility.

Additionally, it provides knowledge of the human body and its functions in relation to physical activities and emphasizes the importance of understanding growth processes and their connection to physical well-being. It fosters socio-psychological development, focusing on emotional control, balanced behavior, leadership qualities, teamwork, and followership.

Furthermore, it highlights the impact of physical and physiological training on women athletes and promotes the practice of yoga, including asanas and pranayama, to prevent hypokinetic diseases. Nutrition and the significance of a balanced diet are key areas of focus.

The discipline also explores the application of physics principles in sports, addresses the needs of children with special requirements, and underscores the value of physical activities tailored to them. It includes methods for administering physical and physiological assessments across age groups while offering insights into various sports and games.

Women's participation in Sports – Physical, Psychological, and social benefits.

Special consideration (Menarche & Menstrual Dysfunction)

Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

Term 1					
Month	Topic				
March	UNIT 1 - Management of Sporting Events				
	* Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)				
	* Various Committees & their Responsibilities (pre; during & post)				
	* Fixture and it's Procedures - Knock - Out (Bye & Seeding) & League (Staircase, Cyclic and Tabular Method)				
	*Intramural & Extramural tournaments – Meaning, Objectives & Its Significance				
	*Community sports program (Sports Day, Health Run, Run for Fun, Run for Specific Cause & Run for Unity				
April	UNIT 2 - Children & Women in sports				
	* Exercise guidelines of WHO for different age groups.				
	Common postural deformities-knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their respective corrective measures.				
	3. Women's participation in Sports – Physical, Psychological, and social benefits.				
	4. Special consideration (menarche and menstrual dysfunction)				
	5. Female athlete triad (osteoporosis, amenorrhea, eating disorders.				

July	UNIT 3 - Yoga as Preventive measure for Lifestyle Disease
	1. Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.
	 Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana,Bhujangasana, Shalabhasana, Dhanurasana, Supta vajarasanaPaschimottanasan-a, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.
	3. Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasan-Bhujangasana,Dhanurasana, Ushtrasana, Vakrasana, Kapalbhati, Gomukhasana Matsyaasana, Anuloma Viloma.
	4 Hypertension:Procedure, Benefits & Contraindications for Tadasana, Katichakransan, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasan-a, Vakrasana, Bhujangasana, Makarasana,

	Shavasana, Nadi shodhanapranayam, Sitlipranayam				
	5 Back Pain and Arthritis: Procedure Benefits & Contraindications of Tadasan				
	Urdhawahastootansana, Ardh-Chakrasana,				
	Ushtrasana, Vakrasana, Sarala Maysyendrsana, Bhujandgasana, Gomukhasana, Bhadrasana,				
	Makarasana, Nadi Shodhana pranayama				
	UNIT 4 - Physical Education and Sports for CWSN (Children with Special Need- Divyang)				
	1. Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)				
	2. Concept of Classification and Divisioning in Sports.				
	3. Concept of Inclusion in sports, its need, and Implementation;				
	4. Advantages of Physical Activities for children with special needs.				
	5. Strategies to make Physical Activities assessable for children with special needs.				
	UNIT 5 - Sports & Nutrition				
	1. Concept of balanced diet and nutrition				
	2. Macro and Micro Nutrients: Food sources & functions				
	3. Nutritive & Non-Nutritive Components of Diet				
	4. Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance,				
	and Food Myths				
	5. Importance of Diet in Sports-Pre, During and Post competition Requirements				
August	UNIT 6 - Test & Measurement in Sports				
	1. Fitness Test – SAI Khelo India Fitness Test in school:Age group 5-8 years/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping TestAge group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Partial Abdominal Curl Up, Push Ups for boys, Modified Push-Ups for girls).				
	2. Measurement of Cardio Vascular Fitness –Harvard Step Test –Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise.				
	3. Computing Basal Metabolic Rate (BMR)				
	4. Rikli & Jones - Senior Citizen Fitness Test Chair Stand Test for lower body strength				
	Arm Curl Test for upper body strength				
	Back Scratch Test for upper body flexibility				
	Eight Foot Up & Go Test for agility				
	Six-Minute Walk Test for Aerobic Endurance				
	5. Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping) Half Turn,				
	Jumping Full Turn				
September	First Terminal Examinations				
1 erm 2	Unit 7 Developer & Injuries in Sport				
October	1 Developed and the second and the s				
	2. Effect of evercise on the Muscular System				
	2. Effect of exercise on the Cardio Despiratory System				
	4. Physiological changes due to aging				
	 4. Environ Orginal Changes due to aging 5. Sports injuries: Classification (Soft Tissue Injuries, Abrasian, Contusion, Lagoration) 				
	Incision, Sprain & Strain; Bone & Joint Injuries -Dislocation, Fractures -Green Stick.				

	Comminuted, Transverse Oblique & Impacted)		
	UNIT 8- Biomechanics & Sports		
	1. Newton's Law of Motion & its application in sports		
	2. Types of Levers and their application in Sports.		
	3. Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports		
	4. Friction & Sports		
	5. Projectile in Sports		
November	UNIT 9 - Psychology & Sports		
	1. Personality; its definition & types (Jung Classification & Big Five Theory)		
	2. Motivation, its type & techniques.		
	3. Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it		
	4. Meaning, Concept & Types of Aggressions in Sports		
	5. Psychological Attributes in Sports – Self-Esteem, Mental Imagery, Self Talk, Goal Settin		
	UNIT 10 - Training in Sports		
	1. Concept of Talent Identification and Talent Development in Sports		
	2. Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle		
	3. Types & Methods to Develop – Strength, Endurance, and Speed.		
	4. Types & Methods to Develop – Flexibility and Coordinative Ability.		
	5. Circuit Training -Introduction & its importance		
December	Annual Examination		
	Pre Board Examination		

ASSESSMENT PLANNER: SESSION 2025 – 2026

SUBJECT: Physical Education

CLASS: XII

TEST	MAX. MARKS	SYLLABUS
PERIODIC ASSESSEMENT 1	20	 Management of Sporting Events. Children & Women in sports. 2-
MID TERM EXAMS	70	 Management of Sporting Events. Children & Women in sports. Yoga as Preventive measure for Life style disease. Physical Education & Sports for C WSN. Sports & Nutrition.
PERIODIC ASSESSMENT 2	20	1. Test & Measurements in sports. 2. Physiology & Injuries in Sports
ANNUAL EXAMS	70	 Management of Sporting Events. Children & Women in sports. Yoga as Preventive measure for Life style disease. Physical Education & Sports for C WSN Sports & Nutrition Test & Measurements in sports. Physiology & Injuries in sports. Biomechanics & Sports. Training in Sports