Class – XII (Science) (2024-25)
English

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.

I Term **(April - September)**

April

1. My Mother at Sixty Six
2. A Thing of Beauty
3. A Roadside Stand
4. Keeping Quiet
5. Aunt Jennifer's Tigers
6. Report Writing

May

1. The Last Lesson
2. Lost Spring
3. Deep Water
4. The Rattrap
5. Article Writing

July

1. Indigo
2. The Interview
3. Poets and Pancakes
4. Going Places
5. Notice Writing
6. Letters

August

1. The Third Level
2. Tiger king
3. Journey to the end of the Earth
4. The Enemy

September

1. On the Face of It
2. Memories of Childhood
3. Revision

II Term **(October - February)**

October

1. **Revision**

November **CBSE EXAMINATION**

ASSESSMENT PLANNER: SESSON 2024 - 2025

SUBJECT: ENGLISH CORE (301) **CLASS: XII**

TEST	MAX. MARKS	SYLLABUS
PERIODIC ASSESSEMENT 1	20	1. My Mother at Sixty-Six 2. Keeping Quiet 3. A Thing of Beauty 4. Aunt Jennifer's Tigers 5. A Roadside Stand 6. Report Writing
MID TERM EXAMS	80	1. My Mother at Sixty-Six 2. Keeping Quiet 3. A Thing of Beauty 4. Aunt Jennifer's Tigers 5. A Roadside Stand 6. Report Writing 7. Article Writing 8. The Last Lesson 9. Lost Spring 10. Deep Water 11. The Rattrap 12. Indigo 13. Going Places 14. Poets and Pancakes 15. The Interview 16. Notice Writing
ANNUAL EXAMS	80	The Entire Syllabus + ALS

Class 12 - Mathematics(2024-25)

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
April **May**	**Ch-5 Continuity and Differentiability** • Continuity and differentiability, • Derivative of composite functions, chain rule. • 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). **Ch-7 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 .
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 **February**	**Pre Board II** .

ASSESSMENT PLANNER : SESSON 2024 - 2025

SUBJECT : Mathematics **CLASS : XII**

TEST	MAX. MARKS	SYLLABUS
PERIODIC ASSESSEMENT 1	20	• Inverse trigonometry • Continuity 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

Class XII - PHYSICS (2024-2025)

LEARNING OUTCOMES

Study of physics will help students to ……

- Develop a basic conceptual understanding of content and acquire a understanding of key concepts .
- Apply the concept of differentiation and integration.
- Apply the knowledge gained to daily life situations
- Understand the importance of SI units , scientific symbol as per the international standards.
- Develop the skill in performing experiments , tabulating observations , plotting graph and inferences from the same.
- Develop scientific temper and scientific attitude

Ist Term **(March - September)**

APRIL: **•ELECTROSTATICS PART 1**

•ELECTROSTATIC PART 2

Electric charge and its properties, Electric field , Electric dipole, Electric potential, equipotential Surface, Gauss theorem and its applications .
Electric capacitance and parallel plate capacitor.

MAY: **CURRENT ELECTRICITY**

Current Electricity, Ohm's law, Kirchhoff's law, Resistors in series and in parallel, Measurement of current, resistance, e.m.f. Potential difference and internal resistance, Wheatstone bridge.

JULY: **MAGNETIC EFFECT OF AN ELECTRIC CURRENT AND MAGNETISM**

Oerster's experiment, magnetic field and field lines, Ampere's circuital Law and its applications Biot savart law, moving coil galvanometer and its principle.Bar magnet and its field on axial and equatorial point, dia,para and ferromagnetic material , their properties

AUGUST: **ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENT CIRCUITS**

Electromagnetic emfand current , self and mutual induction, ac current in resistor, inductor and

capacitor , LCR circuit, AC generator and transformer

• EMW

Idea about displacement current , emwaves and its properties, electromagnetic spectrum and uses of each wave.

DUAL NATURE OF MATTER AND RADIATION

photoelectric effect , Einstein equation of photoelectric emission, DUAL Nature of radiation.

SEPTEMBER: REVISION

ATOMS AND NUCLEI

Structure of atom, Bohr's theory and radius of orbit , Velocity and energy of electron, nuclei , properties of Nuclear forces, binding energy and its variation with Mass number

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2nd Term (October – December)

OCTOBER: RAY OPTICS

WAVE OPTICS

Reflection and refraction of light , Refractive index, mirror and lens formula, lens makers formula optical instruments, interference and diffraction of light , Huygens principal and its use in reflection and refraction of light

SEMICONDUCTOR

Intrinsic and extrinsic semiconductor, band theory P and n type , pn junction diode and its use as a Rectifier.

NOVEMBER: REVISION

DECEMBER CBSE Examination

Pre Board Examination

Revision

ASSESSMENT PLANNER FOR CLASS XII D

SUBJECT::PHYSICS

PT1 (JULY) : Current Electricity

Mid Term Exam: 1) Electrostatic
2) Current Electricity
3) Magnetic Effect of electric current and Magnetism
4) Electromagnetic Induction and Alternating Current
5) Electromagnetic Waves
6) Ray and Wave Optics

Annual Exam : full portion

Pre board: full portion

Class XII – CHEMISTRY(043)(2024-25)

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

Ist Term **(March - September)**

March **Unit VI : Halaolkanes and Haloarenes**

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 **Unit VII : Alcohols, Phenols and Ethers**

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.

Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.

May **Unit VIII: Aldehydes, Ketones and Carboxylic Acids**

Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses.

Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical And chemical properties; uses.

July **Unit IX : Amines**

Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines.
Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.

Unit X : Biomolecules

Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose),polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates.

Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, 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**

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.

September **Unit II : Electro Chemistry**

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.

Revision of Unit VI , VII , VIII , IX , X & I

Mid Term Exams

2nd Term **(October – December)**

October **Unit III : Chemical kinetics**

Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.

Unit IV : D and F Block Elements Lanthanoids, Actinoids

General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K2Cr2O7 and KMnO4.

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

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 Revision
Annual Examination

January Pre Board Examination

ASSESSMENT PLANNER 2024-25

SUBJECT – CHEMISTRY **CLASS XII D**

TEST	**SYLLABUS**
First periodic Test	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
Class Test	Coordination Compounds

Annual Exam	**Full syllabus**
Pre board examination	**Full syllabus**

Class 12 – BIOLOGY(2024-2025)

Zoology(2024-25)

LEARNING OUTCOMES

A study of biology will inculcate among the students a few skills and thus at the end of the session the students will

- **Acquire the ability to utilize technology and information for the betterment of human kind.**
- **Strengthen knowledge and attitude related to livelihood skills and promote life long learning.**
- **Uphold human dignity of individual and the unity and integrity of the nation by encouraging value-based learning activities.**
- **Integrate innovation.**
- **Help in making students perceptive about nature, the environment, technology in biology**

Ist Term (March - September)

March

CHAPTER 2 – HUMAN REPRODUCTION

Male & Female Reproductive Systems, Gametogenesis, Menstrual Cycle, Fertilization, Implantation, Pregnancy & Embryonic development, Parturition, Lactation

April

CHAPTER 3 – REPRODUCTIVE HEALTH

Reproductive Health

- Need for reproductive health and prevention of SexuallyTransmitted Diseases (STDs)
- birth control - need and methods contraception and medical termination of pregnancy (MTP); amniocentesis;
- infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

May

CHAPTER 11- Organisms and Populations

- Population interactions - mutualism, competition,predation, parasitism;
- population attributes - growth, birth rate and death rate, age distribution

CHAPTER 7 - Human Health and Diseases

- Pathogens; parasites causing human diseases (malaria,dengue, chikungunya, filariasis, ascariasis, typhoid,pneumonia, common cold, amoebiasis, ring worm) and their control

July

CHAPTER 7 - Human Health and Diseases

- Basic concepts of immunology - vaccines
- cancer,
- HIV and AIDS
- Adolescence - drug and alcohol abuse.

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

August CHAPTER 5--- MOLECULAR BASIS OF INHERITANCE

- transcription
- genetic code
- translation
- gene expression and regulation
- lac operon
- Genome, Human and rice genome projects
- DNA fingerprinting.

August Chapter 9 - Biotechnology - Principles and Processes

- Genetic Engineering (Recombinant DNA Technology)
- Tools in rDNA technology

September

Revision and Mid term exam

.2nd Term (October – February)

October CHAPTER 9 – BIOTECHNOLOGY : PRINCIPLES AND PROCESSES

- Nomenclature of enzymes
- Steps in rDNA technology
- Steps in PCR

CHAPTER 10 – BIOTECHNOLOGY & ITS APPLICATIONS

- Application of biotechnology in health and agriculture
- Human insulin and vaccine production
- gene therapy
- genetically modified organisms - Bt crops
- transgenic animals
- biosafety issues, biopiracy and patents

November Revision/Annual Examination

ASSESSMENT PLANNER 2024-25
CLASS XII
ZOOLOGY

ASSESSMENT	CHAPTER
1. PT- I	1. Human reproduction 2. Reproductive health
2. MID TERM EXAM	1. Human reproduction 2. Reproductive health 3. Organisms and population 4. Human health and diseases 5. Molecular basis of inheritance
3. ANNUAL EXAM	1. Human reproduction 2. Reproductive health 3. Organisms and population 4. Human health and diseases 5. Molecular basis of inheritance 6. Biotechnology principles and processes 7. Biotechnology and its applications

Class 12 – Botany(2024-25)

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 & April	Chapter 1. Sexual reproduction in flowering plants Pre-fertilization-structure and events; double fertilization; Post fertilization-structure and events; Apomixis and Polyembryony.
May	Chapter 4. Principles of inheritance and variation. Mendel's laws of inheritance; inheritance of one gene; inheritance of two genes; Pleiotropy; sex determination; genetic disorders.
July	Chapter 6. Evolution Origin of life; Evolution of life forms-a theory; What are the evidences for evolution; What is adaptive radiation? Biological evolution; mechanism of evolution; Hardy-Weinberg principle; brief account of evolution; origin and evolution of man.
August	Chapter 8. Microbes in human welfare. Microbes in house hold products; microbes in industrial products; microbes in sewage treatment; microbes in production of biogas; microbes as biocontrol agents; microbes as bio-fertilizers. Chapter 12. Ecosystem. Ecosystem- structure and function; productivity; decomposition; energy flow; ecological pyramids; ecological succession; nutrient cycling; ecosystem services.

September	Revision Mid Term Examination
October	Chapter 13. Biodiversity and conservation. Biodiversity; Biodiversity conservation;
November	Revision
December	Revision
January	Revision

ASSESSMENT PLANNER FOR CLASS XII BOTANY 2024-25

Class Assessment 1: Chapter 1. Sexual Reproduction in flowering plants
Periodic Assessment 1: Chapter 1. Sexual Reproduction in flowering plants
Chapter 4. Principles of inheritance (Mendel's law of inheritance)
Periodic Assessment 2: Chapter 4. Principles of inheritance (complete)
First Term Practical Examination and Viva voce
Midterm Examination: Chapter 1. Sexual reproduction in flowering plants
Chapter 4. Principles of inheritance
Chapter 6. Evolution
Class Assessment 2: Chapter 8. Microbes in human welfare
Class Assessment 3: Chapter 12. Ecosystem
Class Assessment 4: Chapter 13. Biodiversity and conservation
Annual Exam: Chapter 1, 4, 6, 8, 12 and 13 complete
Preboard examination: Chapter 1, 4, 6, 8, 12 and 13 complete
Preboard Practical Exam and Viva voce

Class 12 - Computer Science(083) – 2024-25

1st Term	**(March-September)**
March	**UNIT 1: Computational Thinking and Programming – 2** • Revision of the basics of Python covered in Class XI. • 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)
April – May	**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

- 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.

****** Python with MySQL Board Project and detailed Assignment on the above topics given as Summer break holiday homework.

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

- Exception Handling: Introduction, handling exceptions using try-except-finally blocks
- 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

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

- 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()

September Revision

Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.

2nd Term **(October -February)**

October **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)
- 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 ******Final Board Project Submission (The Source Code) , Demonstration and its Assessment***
November • Revision • Board Project Report file submission and Final Assessment

ASSESSMENT PLANNER 2024-25
CLASS XII
COMPUTER SCIENCE

ASSESSMENT	CHAPTER
Class Test	1. Revision of the basics of Python Covered in Class-XI 2. Functions
PT- I	1.Database Concepts 2. Structured Query Language
Class Test	1. Interface of Python with SQL 2. Exception Handling
MID TERM EXAM	1. Revision of the basics of Python Covered in Class-XI 2. Functions 3. Database Concepts 4. Structured Query Language 5. Interface of python with an SQL database: 6. Exception Handling 7. Text file 8. Binary file 9. CSV file
Class Test	1. Data Structure 2. Networking
ANNUAL EXAM	Whole Syllabus as per CBSE Curriculum

Class 12 - PSYCHOLOGY (2024-25)

One Theory Paper **Marks: 70**

Units	Topics	Marks
I	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**

COURSE CONTENT

April	**Unit I**	**Variations in Psychological Attributes** *The topics in this unit are:* 1. Introduction 2. Individual Differences in Human Functioning 3. Assessment of Psychological Attributes 4. Intelligence 5. Theories of Intelligence: Psychometric Theories of Intelligence, Information Processing Theories, Theoryof Multiple Intelligences, Triarchic Theory of Intelligence, Planning, Attention-Arousal andSimultaneous Successive Model of Intelligence 6. Individual Differences in Intelligence 7. Culture and Intelligence 8. Emotional Intelligence 9. Special Abilities: Aptitude: Nature and Measurement 10. Creativity
May	**Unit II**	**Self and Personality** *The topics in this unit are:* 1. Introduction
		2. Self and Personality 3. Concept of Self 4. Cognitive and Behavioural Aspects of Self 5. Culture and Self 6. Concept of Personality 7. Major Approaches to the Study of Personality • Type Approach • Trait Approach • Psychodynamic Approach • Behavioural Approach • Cultural Approach • Humanistic Approach 8. Assessment of Personality • Self-report Measures • Projective Techniques • Behavioural Analysis
July	**Unit III**	**Meeting Life Challenges** *The topics in this unit are:* 1. Introduction 2. Nature, Types and Sources of Stress 3. Effects of Stress on Psychological Functioning andHealth • Stress and Health • General Adaptation Syndrome • Stress and Immune System • Lifestyle 4. Coping with Stress • Stress Management Techniques 5. Promoting Positive Health and Well-being • Stress Resistant Personality • Life Skills • Positive Health
July/August	**Unit IV**	**Psychological Disorders** *The topics in this unit are:* 1. Introduction 2. Concepts of Abnormality and Psychological Disorders

		• Historical Background 3. Classification of Psychological Disorders 4. Factors Underlying Abnormal Behaviour 5. 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 Psychotic Disorders • Neurodevelopmental Disorders • Disruptive, Impulse-Control and Conduct Disorders • Feeding and Eating Disorders • Substance Related and Addictive Disorders
August	Unit V	Therapeutic Approaches The topics in this unit are: 1. Nature and Process of Psychotherapy • Therapeutic relationship 2. Types of Therapies • Psychodynamic Therapy • Behaviour Therapy • Cognitive Therapy • Humanistic-Existential Therapy • Biomedical Therapy • Alternative Therapies 3. Rehabilitation of the Mentally Ill
October	Unit VI	Attitude and Social Cognition The topics in this unit are: 1. Introduction 2. Explaining Social Behaviour 3. Nature and Components of Attitudes 4. Attitude Formation and Change • Attitude Formation
		• Attitude Change • Attitude-Behaviour Relationship 5. Prejudice and Discrimination 6. Strategies for Handling Prejudice 7. Social Cognition 8. Schemas and Stereotypes 9. Impression Formation and Explaining • Behaviour of Others through Attributions • Impression Formation • Attribution of Causality 10. Behaviour in the Presence of Others 11. Pro-social Behaviour • Factors Affecting Pro-social Behaviour
		Practical Marks 30 • 5 Psychological Test • 1 Case Profile

Prescribed Books:

1. Psychology, Class XII, Published by NCERT

PSYCHOLOGY - ASSESSMENT PLANNER -2024-25
XII ABD

TEST	SYLLABUS
PA 1 (20 Marks)	Unit -1 Variations in Psychological Attributes Unit – 2 Self and Personality
HALF YEALY 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
ANNUAL 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 Unit – 6 Attitude and Social Cognition Unit – 7 Social Influence and Group processes

Class 12 - PHYSICAL EDUCATION (048) (2023-24)

Ist Term **(March - September)**

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)
- 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/May **UNIT 2 - Children & Women in sports**

- Exercise guidelines of WHO for different age groups.
- Common Postural Deformities- Knock knee; Bow legs; Flat foot; Round shoulders; Lordosis, Kyphosis , and Scoliosis and their corrective measures
- Women's participation in Sports – Physical, Psychological, and social benefits.
- Special consideration (Menarche & Menstrual Dysfunction)
- Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

July **UNIT 3 - Yoga as Preventive measure for Lifestyle Disease**

- Obesity: Procedure, Benefits and Contraindications for Vajrasana, Hastasana, Trikonasana, Ardh-Matseyendrasana
- Diabetes: Procedure, Benefits & Contraindications for Bhujangasana, Pashimottasana, Pavan Muktasana, Ardh Matsyendrasana Kapalbhati

- Asthma: Procedure, Benefits & Contr. for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Pashimottasana, Matsyasana, Anulom- Vilom
- Hypertension: Procedure,Benefits , Contraindications Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Shavasana

UNIT 4 - Physical Education and Sports for CWSN (Children with Special Need- Divyang)

- Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
- Concept of Classification and Divisioning in Sports.
- Concept of Inclusion in sports, its need, and Implementation;
- Advantages of Physical Activities for children with special needs.
- Strategies to make physical Activities accessible for children with special need.

UNIT 5 - Sports & Nutrition

- Concept of balance diet and nutrition
- Macro and Micro Nutrients: Food sources & functions
- Nutritive and Non - Nutritive Components of Diet
- Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths
- Importance of Diet in Sports-Pre, During and Post competition Requirements

August **UNIT 6 - Test & Measurement in Sports**

- Fitness Test - SAI Khelo India Fitness Test in School:
  - Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test , Plate Tapping Test
  - Age group 9- 18 yrs/ class 4- 12: BMI, 50mt Speed test ,600mt Run/walk, Sit & Reach flexibility test,
  - Strength Test (Abdominal Partial Curl up, Push ups for boys. Push ups (Girls))
- 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.
- Computing Basal Metabolic Rate (BMR)
- Rikli & Jones- senior citizen fitness test....
  - Chair stand test for lower body strength
  - Arm curl test for upper body strength
  - Chair sit & reach test for lower body flexibility
  - Back scratch test for upper body flexibility
  - Eight foot up & go test agility
  - Six minute walk test for aerobic endurance

September Revision

2nd Term **(October – February)**

October **UNIT 7 - Physiology & Injuries in sports**

- Physiological factor determining component of Physical Fitness
- Effect of exercise on muscular system
- Effect of exercise on Cardio- Respiratory System
- Physiological changes due to aging
- Sports injuries: Classification (SoftTissues Injuries -Abrasion , Contusion , Laceration, Incision, Sprain & Strain; Bones& Joints Injuries - Dislocation , comminuted, Transverse Oblique & Impacted)

UNIT 8- Biomechanics & Sports

- Newton's Law of Motion & its application in sports
- Types of Levers and their application in Sports.

- Equilibrium - Dynamic & Static and Centre of Gravity and its application in sports
- Friction & Sports
- Projectile in Sports

November **UNIT 9 - Psychology & Sports**

- Personality; its definition & types (jung Classification & BIG five Theory)
- Motivation, its type & techniques.
- Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it
- Meaning ,Concept & Types of Aggression in Sports
- Psychological Attributes in Sports -Self Esteem , Mental Imagery , Self Talk , Goal Setting

UNIT 10 - Training in Sports

- Concept of Talent Identification and Talent Development in Sports
- Introduction to Sports Trainning Cycle - Micro , Meso , Macro Cycle .
- Type & Method to Develop- Strength, Endurance , and Speed
- Type & Method to Develop- Flexibility and Coordinative Ability
- Circuit Training -Introduction & its importance

December Annual Examination

January Preboard Examination

ASSESSMENT PLANNER : SESSON 2024 - 2025

SUBJECT: Physical Education **CLASS: XII**

TEST	MAX. MARKS	SYLLABUS
PERIODIC ASSESSEMENT 1	20	1- Management of Sporting Events.2- Children & Women in sports.
MID TERM EXAMS	70	1. Management of Sporting Events. 2. Children & Women in sports. 3. Yoga as Preventive measure for Life style disease. 4. Physical Education & Sports for C WSN. 5. Sports & Nutrition.
ANNUAL EXAMS	70	1. Management of Sporting Events. 2. Children & Women in sports. 3. Yoga as Preventive measure for Life style disease. 4. Physical Education & Sports for C WSN 5. Sports & Nutrition 6. – 6. Test & Measurements in sports. 7. Physiology & Injuries in sports 8. Biomechanics & Sports. 9. Psychology & Sports 10. Training in Sports