

Syllabus
2021-2022
CLASS XII-A, B,C
SCIENCE

ENGLISH CORE

Prescribed Books: 1. Flamingo (NCERT)

2. Vistas (NCERT)

Month	Name of the topic	Learning Outcome
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April	<p>Flamingo:</p> <p>Prose</p> <ul style="list-style-type: none"> • The Last Lesson <p>Poetry</p> <ul style="list-style-type: none"> • My Mother at Sixty-six <p>Vistas:</p> <ul style="list-style-type: none"> • The Third Level <p>Notice Writing, Letter to the Editor</p>	<p>Analyzing in detail how a key individual, event or idea is introduced in the text.</p> <p>Understand Poetry as a literary form and analyze the various elements of poetry.</p> <p>Application of appropriate reading strategies for interpreting texts and Vocabulary building.</p> <p>Announcements of events/celebrations/instructions through formal notices and letters written in appropriate format and style.</p>
May	<p>Flamingo:</p> <p>Prose</p> <ul style="list-style-type: none"> • Lost Spring Poetry 	<p>Integrating information as well as words to develop a coherent understanding of the topic.</p>

	<ul style="list-style-type: none"> • An Elementary School Classroom in a Slum <p>Classified Advertisements</p>	<p>Engaging in independent reflection and enquiry.</p> <p>Objective evaluation or analysis of an event; announcement of products, services, events etc.</p>
July	<p>Flamingo:</p> <p>Prose</p> <ul style="list-style-type: none"> • Deep Water <p>Poetry</p> <ul style="list-style-type: none"> • Keeping Quiet 	<p>Appreciating, Reasoning and Justifying; Extracting relevant information; drawing comparisons with the help of contrasting images.</p> <p>Relating words with actual, meaningful situations to construct grammatically correct sentences.</p> <p>Creating awareness through 'Posters'.</p>
August	<p>Vistas:</p> <ul style="list-style-type: none"> • The Enemy <p>Article Writing, Classified Advertisements</p>	<p>Identifying the main ideas in the text and making inferences based on information.</p> <p>Expressing opinions/ideas in an organized manner using appropriate language and format.</p> <p>Ability to write coherently and respond imaginatively to questions.</p>
September	<p>Flamingo:</p> <p>Prose</p> <ul style="list-style-type: none"> • The Rattrap <p>Vistas:</p> <ul style="list-style-type: none"> • Should Wizard Hit Mommy? <p>On the Face of It</p>	<p>Learning to document the main events, ideas and using verbs to develop a bigger picture.</p> <p>Silent Reading and reading between the lines.</p> <p>Identifying the moral issues raised. Perceive the overall meaning and</p>
	<p>Invitation (Formal and Informal)&Replies to Invitations, Job Application</p> <p>Reading Comprehension</p>	<p>organization of the text; develop the skills of reasoning.</p>

October	Flamingo: Prose <ul style="list-style-type: none"> • Indigo Poetry <ul style="list-style-type: none"> • A Thing of Beauty • Aunt Jennifer's Tigers Vistas: <ul style="list-style-type: none"> • Evans Tries An O-Level Report Writing	Ascertaining the kind of issues raised through someone's life and struggle. Identifying women as marginalized community, the discrimination they face and their struggle against it. Figuring out the complexities of human relationships, impact on impressionable minds.
November	Reading Comprehension	

SECTION	TERM 1	WEIGHTAGE (IN MARKS)	TERM II	WEIGHTAGE (IN MARKS)
A	Reading Comprehension: (Two Passages) <ul style="list-style-type: none"> • Unseen passage (factual, descriptive or literary/ discursive or persuasive) • Case Based Unseen (Factual) Passage 	14 (8+6 Marks)	Reading Comprehension: (Two Passages) <ul style="list-style-type: none"> • Unseen passage (factual, descriptive or literary/ discursive or persuasive) • Case Based Unseen (Factual) Passage 	14 (8+6 Marks)

<p style="text-align: center;">B</p>	<p>Creative Writing Skills:</p> <p style="text-align: center;"><u>Short Writing Tasks</u> <input type="checkbox"/></p> <p>Notice Writing <input type="checkbox"/> Classified Advertisements</p> <p style="text-align: center;"><u>Long Writing Tasks (One)</u></p> <p><input type="checkbox"/> Letter to an Editor <input type="checkbox"/> (giving suggestions or opinion on issues of public interest) Article Writing</p>	<p style="text-align: center;">3+5 marks Total =08</p>	<p>Creative Writing Skills:</p> <p style="text-align: center;"><u>Short Writing Tasks</u></p> <ul style="list-style-type: none"> • Formal & Informal Invitation Cards or the Replies to Invitation/s <p style="text-align: center;"><u>Long Writing Tasks(One)</u></p> <ul style="list-style-type: none"> • Letter of Application for a Job • Report Writing 	<p style="text-align: center;">3+5 Marks Total=08</p>
<p style="text-align: center;">C</p>	<p>Literature: Literary-prose/poetry extracts (seen-texts) to assess comprehension and appreciation, analysis, inference, extrapolation</p> <p>Questions Based on Texts to assess comprehension and appreciation, analysis, inference, extrapolation</p> <p><u>Book- Flamingo (Prose)</u></p> <ul style="list-style-type: none"> • The Last Lesson • Lost Spring • Deep Water 	<p style="text-align: center;">11 Marks</p> <p style="text-align: center;">for Flamingo + 7 Marks for Vistas = 18 Marks</p>	<p>Literature: Questions based on extracts/texts to assess comprehension and appreciation, analysis, inference, extrapolation</p> <p><u>Book-Flamingo (Prose)</u></p> <ul style="list-style-type: none"> • The Rattrap • Indigo <p><u>Book-Flamingo (Poetry)</u></p> <ul style="list-style-type: none"> • A Thing of Beauty • Aunt Jennifer's Tigers 	<p style="text-align: center;">11 Marks for Flamingo + 7 Marks for Vistas = 18 Marks</p>

	<p><u>Book-Flamingo</u> <u>(Poetry)</u></p> <ul style="list-style-type: none"> • My Mother at Sixty-Six • An Elementary School Classroom in a Slum • Keeping Quiet <p><u>Book-Vistas</u> <u>(Prose)</u></p> <ul style="list-style-type: none"> • The Third Level • The Enemy 		<p><u>Book-Vistas</u> <u>(Prose)</u></p> <ul style="list-style-type: none"> • Should Wizard Hit Mommy? • On the Face of It • Evans Tries an O Level 	
	TOTAL	40	TOTAL	40
	ASL	10	ASL	10
	GRAND TOTAL	40 + 10 = 50	GRAND TOTAL	40 + 10 = 50

SYLLABUS FOR PERIODIC TEST 2

Flamingo

Prose

- Lost Spring
- Deep Water **Poetry**

- An Elementary School Classroom in a Slum
- Keeping Quiet

Vistas

- The Enemy

WRITING SKILLS

Classified Advertisements, Article Writing

READING SKILLS

Reading Comprehension

SYLLABUS FOR PERIODIC TEST 3

Flamingo

Prose

- The Rattrap **Poetry**
- A Thing of Beauty

Vistas

- Should Wizard Hit Mommy?

WRITING SKILLS

- Formal & Informal Invitation Cards or the Replies to Invitation/s

READING SKILLS: Reading Comprehension

TERM-1			
MONTH	NAME OF THE TOPIC	ACTIVITY	LEARNING OUTCOMES
APRIL	Ch-1: Electric Charges and Fields Ch-2: Electrostatic Potential and Capacitance	1. To determine resistivity of two / three wires by plotting a graph between potential difference versus current.	Able to. State the mathematical definitions of Coulomb force, electric field, electrostatic potential and voltage. Able to Select relevant properties from electric charge and fields to predict the outcome of a given electrostatic interaction.
MAY	Ch-3: Current Electricity Ch-4: Moving Charge and Magnetism	2. To find resistance of a given wire / standard resistor using metre bridge.	Able to Distinguish between static electricity and the current electricity. Able to analyse complex DC circuits qualitatively and quantitatively including applications of Ohm's law and Kirchhoff's laws. Able to describe magnetic field and field lines
JULY	Ch-5: Magnetism and matter	3. To compare the EMF of two given primary cells using potentiometer. To determine the internal resistance of given primary cell using potentiometer.	Able to describe how magnetism is produced
AUGUST	Ch-6: Electromagnetic Induction Ch-7: Alternating Current	4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.	Able to Solve challenging problems using interconnected resistance, capacitance, inductance
TERM-2			
SEPTEMBER	Ch-8: Electromagnetic Waves Ch-9: Ray optics and Optical Instruments	1. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.	Able to acquires knowledge about the Practical application of EMW in our Daily life. Able to learn about the different types of mirrors and lenses and respective ray diagrams for image formation along the mathematical tactics and Analysis.

OCTOBER	Ch–10: Wave Optics	2. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.	Able to differentiate between the ray and wave nature of a light
NOVEMBER	Ch–11 Dual Nature of Radiation and Matter	3. To determine refractive index of a glass slab using a travelling microscope.	Able to understand the dual nature of light (Wave and Particle) along with experimental and mathematical verification.
December	CH–12: Atoms Ch–13: Nuclei	4. To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias.	Able to understand the Concept of atoms and nuclei with help of different models developed by different scientists (Rutherford's model, Bohr's model etc.)
January	Ch–14: Electronic Devices		Able to understand the Concept of Conductors, Insulator and semiconductor with the help of Band Energy Theory. Able to understand the Classification of semiconductors along with Practical applications in PN diode.

Syllabus for P1	:	Ch–1: Electric Charges and Fields , Ch–2: Electrostatic Potential and Capacitance
Syllabus for P2	:	Ch–3: Current Electricity Ch–4: Moving Charge and Magnetism Ch–5: Magnetism and matter
Syllabus for Term -1	:	Complete Syllabus of Term-1
Syllabus for P3	:	Ch–8: Electromagnetic Waves Ch–9: Ray optics and Optical Instruments Ch–10: Wave Optics
Syllabus for Term -2		Complete Syllabus of Term-2

CHEMISTRY

Term-1

Theory (35 marks)

Month	Unit no. / Name of unit	Activity	Learning Outcomes
April	Unit 1- Solid State.		Unit 1-knowledge of crystal lattice and unit cell, closed packed structure , and various imperfections of solid.
May	Unit 2- Solution.		Unit 2- Knowledge of variation of colligative properties in solutions
July	Unit 7- p-block elements.		Unit 7-Knowledge of periodic trends and characteristic features of group 15,16,17 and 18 elements.
August	Unit 10- Haloalkanes and Haloarenes.		Unit 10--Knowledge of IUPAC nomenclature, stereochemistry, physical and chemical properties, reaction mechanisms, applications and environmental effects of Haloalkanes and haloarenes
September	Unit 11- Alcohols, Phenols and Ethers.	-Ascending paper Chromatography -Food Sample Detection.	Unit 11--Knowledge of IUPAC nomenclature ,physical and chemical properties, reaction mechanisms, applications of Alcohols, phenols and ethers
October	Unit 14- Biomolecules.	-Volumetric Analysis. -Salt Analysis	Unit 14-Knowledge of various classes of Biomolecules and their specific roles in biosystem.
November	Overall revision and first term exam	-Salt Analysis -Preparation and correction of class record -Overall revision	

Practicals (15 Marks)

S.no.	Name of the experiments	Month
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1.	Content based experiment.	September
2.	Volumetric Analysis	October
3.	Salt analysis	October & November
4.	Preparation of class record.	November

Term-2

Theory (35 Marks)

Month	Unit no. / Name of unit	Activity	Learning Outcomes
December	Unit 3- Electrochemistry. Unit 4- Chemical kinetics.	Functional group detection	Unit 3 – Knowledge of basic difference between electrolysis and electrochemical process. Unit 4-Knowledge of factors affecting rate of reaction and concept of Catalyst.
January	Unit 5- Surface Chemistry. Unit 8- d & f – block elements.	Volumetric analysis	Unit 5-Knowledge of Thermodynamic concept of adsorption and characteristic features of a colloidal system. Unit 8-Knowledge and understanding of periodic trends and general properties of d- and f- block elements.
February	Unit 9- coordination compounds. Unit 12- Aldehydes, ketones and Carboxylic acids. Unit 13- Amines.	Salt analysis	Unit 9-Knowledge of IUPAC nomenclature, isomerism, nature of bonding, stability and applications of coordination compounds. Unit 12--Knowledge of IUPAC nomenclature, physical and chemical properties, reaction mechanisms, applications of carbonyl compounds Unit 13-Knowledge and understanding of basic nature of amines and their application as reaction intermediates.

March	Overall revision and second term exams	-Preparation and correction of class record and investigatory project. -Overall revision	
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Practicals(15 Marks)

S.no	Name of experiment	Month
1.	Content based experiment.	December
2.	Volumetric analysis	January
3.	Salt analysis	February
4.	Preparation of investigatory project.	March

Syllabus for P-1	Unit 1,2
Syllabus for P-2	Unit 7
Syllabus for first term	Unit 1,2,7,10,11,14
Syllabus for P-3	Unit 3
Syllabus for Final term	Unit 3,4,5,8,9,12,13

Art Integrated learning (AIL) – (2021-2022)

- Art Integrated project with paired state Asam.
- Mind Map presentation on the following topic.

1. Classification of carbohydrates.
2. Classification of Proteins.

TERM-I				
S.n	Month	Syllabus coverage	Activities	Learning outcome
1.	April	Unit 1. Reproduction Ch.2. Sexual reproduction in Plant	Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).	Students will be able to understand advancement of sexual reproduction over asexual reproduction.
			Flower adaptations for Pollination by different agencies.	Students will be able to know the interdependence of biotic and Abiotic components eg. In pollination wind, water, bees, animals play significant role. They will also be able to know the formation of fruit and seed.
2	May	Ch3. Human Reproduction	T.S. of Blastula.	Students will be able to discuss changes occur in puberty, Process of development of foetus in women's body.
3	July	Ch 4.Reproductive Health	Prepare a temporary mount to observe pollen germination.	Students will be able to know the importance of sex education ,various methods of Assisted reproductive technique
4	August	Unit 2.Genetics and Evolution Ch5. Principles of Inheritance	Meiosis in onion bud cell or grasshopper testis through permanent slides	Students will be able to relate laws of Mendel with inheritance of characters from one generation to another generation.
5	September	Principles of Inheritance continue		Students will develop Concept building on mendelian genetics. Various attributes of mendelian and chromosomal disorders. Family diseases can be studied with the help of pedigree analysis chart
6	October	Ch6. Molecular Basis of inheritance	To Study Pedigree charts of genetic Traits such as rolling of tongue, blood groups, ear lobes, Widow's peak and colour blindness	Students will apply knowledge to relate DNA, RNA and Proteins and Central Dogma in our body.
7	November	Molecular basis of Inheritance continue	Isolation of DNA from available plant material.	
TERM-II				
8	December	Unit-VIII Biology and Human Welfare Chapter-8: Human Health and Diseases	Prepare a temporary mount of onion root tip to study mitosis.	Students will know the different perspectives of adolescence. They will be able to understand the defence mechanism present in our body like Antigen and Antibody structure and their interaction.
		Chapter-10: Microbes in Human Welfare	Collect water from two different water bodies around you and study them for pH, clarity and presence	Students will be able to know the different techniques used in Animal and Plant breeding.

			of any living organism	
			To study the effect of different temperature and pH on the activity of Salivary Amylase.	Students will be able to know the use of microorganisms in our body.
9	January	Unit 4. Biotechnology		
		Ch.11 Principles and Process	Common disease - causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images. Comment on symptoms of diseases that they cause	Students will know the application of biological organisms, systems or scientific processes to the manufacturing and service industries.
		Ch 12 Application of Biotechnology		Students will be able to know use of Biotech in Food industries, drugs and medicine, Gene Therapy, Plant and animal breeding.
10	February	Ch .13.Organisms and Population Ch 15.Biodiversity and conservation	Morphological Adaptations of Plants and animals present in Xerophytic and Aquatic conditions.	Students will know the concept of Species, population, community, Ecosystem, Biome and biosphere. Students will show their sensitivity towards Wild life, and its conservation

Split of

syllabus exam wise – class XII biology 2021-22

Syllabus for P1----Unit 1-Reproduction ,Chapter 2 ,3 and 4

Syllabus for P 2 -----Unit 2 Genetics and evolution

Chapter 5 Principle of Inheritance and variations

Term Exam I - Unit 1 Reproduction ch 2,3,4

Unit 2 Genetics And Evolution 5,6

Syllabus P3 Term II Unit 3 Biology in Human Welfare

Chapter 8 and 10

Unit 4 Biotechnolog

Chapter 11

Term Exam II Unit 3 Biology in Human Welfare ch 8,10

Unit 4 Biotechnology ch 11,12

Unit 5 Ecology 13,15

MATHEMATICS

Month wise/Term wise Bifurcation of Syllabus 2021 –

2022MathematicsClass12(CoreMathematics)

MONTH	CHAPTER NAME	LEARNING OUTCOME:
AUGUST2021	CONTINUITY AND DIFFERENTIABILITY (contd.) APPLICATIONS OF DERIVATIVES	Learn the concept of continuity and differentiability and will be able to find derivatives of various functions. Understand the applications of derivatives used for increasing and decreasing functions, tangent and normal, Simple problems of maxima minima
SEPTEMBER 2021	LINEAR PROGRAMMING RELATION AND FUNCTION	Understand the different types of linear programming problems and their graphical methods of solution for problems in two variables having bounded and unbounded region. Learn about various types of relations and functions.
OCTOBER 2021	INTEGRATION	Learn the integration as anti derivatives and will be able to find the integrals of various functions using formula. They will also learn the basic properties of definite integrals and evaluation.

NOVEMBER2021	APPLICATION OF INTEGRATION REVISION FOR TERM 1 EXAM	Learn the application and finding the area under simple curves.
DECEMBER 2021	TERM END EXAMS DIFFERETIAL EQUATIONS	Understand the definition, order and degree of differential equations. Also learn the methods of solving differential equations in various forms.
JANUARY2022	VECTORS 3 D GEOMETRY	Understand various terms and types of vectors. They'll also be able to learn the addition, scalar and vector product of vectors. Learn the concept of three dimensional geometry. They will also learn the Cartesian and Vector forms of lines and a plane
FEBRUARY2022	Probability Revision	Learn the conditional probability, multiplication Theorem, Bayes Theorem and probability distribution.
MARCH2022 & APRIL 2022	Term 2 Exam	

Name of the Examination	Chapter Name
Periodic Test 2	<ul style="list-style-type: none"> • CONTINUITY AND DIFFERENTIABILITY • APPLICATIONS OF DERIVATIVES •
Term end Exam/ Half yearly exam	<ul style="list-style-type: none"> • INVERSE TRIGONOMETRIC FUNCTIONS <ul style="list-style-type: none"> • RELATION and FUNCTIONS • MATRICES • DETERMINANTS • CONTINUITY AND DIFFERENTIABILITY • APPLICATIONS OF DERIVATIVES • LINEAR PROGRAMMING PROBLEMS
Periodic Test 3	<ul style="list-style-type: none"> • INTEGRALS • APPLICATION OF INTEGRALS
Term 2 Exam	<ul style="list-style-type: none"> • INTEGRALS • APPLICATION OF INTEGRALS • DIFFERENTIAL EQUATIONS • VECTORS AND 3D GEOMETRY <ul style="list-style-type: none"> • PROBABILITY

OPTIONAL

A. PSYCHOLOGY

Month	Name of the Topic	Activity	Learning Outcome
April	Ch – 3. Meeting Life Challenges	Activity on Stress	<ul style="list-style-type: none"> • Students would grasp the concept of stress and how to deal with it • Relationship between stress and health will be clearer. • Various coping strategies and life skills will be learnt.

May/June	Ch – 1. Variation in individual attributes	Activity on Individual Differences	<ul style="list-style-type: none"> • The concept of intelligence will be understood from the perspective of different theories. various factors influencing intelligence and its range will be clear • The two extremes of the intellectual spectrum i.e. giftedness and intellectual deficiency will be grasped. • The role of culture and relation of intelligence with creativity will be known .
July	Ch – 2. Self & Personality	Activity on Self Perception	<ul style="list-style-type: none"> • The concept of self would be clearer along with its various dimensions like self concept, self efficacy. Self esteem and self regulation.It's relationship with culture will be understood • Various theories of personality as well as it's assessment will be learnt
August	<p>Ch -2. Self and Personality(to be continued)</p> <p><u>Tests:</u> (Practical syllabus for Term 1)</p> <p>(Tests:AISS and DBDA)</p> <p><u>Test 1 of Practical syllabus:</u></p> <p>(DBDA i.e. David's Battery of differential abilities to be taught)</p> <p><u>Test 2:</u> AISS i.e. Adjustment Inventory of Secondary School students to be taught)</p>	<p>Role Play based on the personality assessment methods.</p> <p>Projective tests examples will be shared to have an idea.</p>	<ul style="list-style-type: none"> • Personality assessment measures will be known • Conduction and interpretation of these two tests will be taught.Report writing of these tests to be done in the practical file
September	Ch – 4. Psychological Disorders	Activity on Psychological Disorders	<ul style="list-style-type: none"> • Students will develop empathetic understanding of the Psychological disorders, their history and our understanding of their etiology. • Various psychological disorders and their symptoms would be clear to students

October	Ch – 5. Therapeutic Approaches	Role Play as a Therapist /Mock interview	<ul style="list-style-type: none"> ● Psychological therapies and the principles that govern them will be known ● Students will be able to differentiate and judge the effectiveness of different therapies for different disorders <p style="text-align: center;">-----</p>
----- November	----- -----	----- -----	<ul style="list-style-type: none"> ● Students will learn about the influence of others on their behavior. <ul style="list-style-type: none"> ● Group formation, it's functions, characteristics and structure would be understood. ● Social loafing and Group polarization would be known in detail. ● Students will learn the interpretation, conduction and report writing of SAS.
	Ch – 7. Social Influence	Activity 1 on Social Influence	<ul style="list-style-type: none"> ● Students will learn to conduct and interpret three psychometric tests to perfection for the practical exams.

	Test3: SAS i.e. Sodhi's Attitude Scale will be taught,		
December	Ch – 6. Attitude and Social Cognition	Discussion / brainstorming session on Prejudice	<ul style="list-style-type: none"> The concept of attitude along with its important components would be understood. Students will learn how their attitudes are formed and changed

Syllabus for P1: Chapter No. 1 , 3

Syllabus for P2: Chapter Nos. 1 , 2 , 3

Syllabus for Half yearly Examination(Term-1):Chapter Nos. 1 , 2 , 3

Syllabus of P3 :Chapter no.4,5

TERM– II : Compete Syllabus (,4,5,6,7)

Practical exams Term I : Any one of the 2 Psychometric test
(Internal)

Practical exams Term II : Any one of the three Psychometric test (external)

**(TERM WISE)
CLASS XII (2021 - 2022)**

Units	Topics	No. of periods	Marks
TERM 1			
I	Variations in Psychological Attributes	20	12
II	Self and Personality	24	13
III	Meeting Life Challenges	14	10
	Total	58	35
TERM 2			
IV	Psychological Disorders	24	13
V	Therapeutic Approaches	16	7
VI	Attitude and Social Cognition	12	8

VII	Social Influence and Group Processes	8	7
	Total	60	35
	Total	118	70

PRACTICAL

Distribution of Marks (Term 1)

- Practical File – 5 Marks
- Viva Voce – 3 Marks
- Administration of one test & report writing – 7 Marks

PRACTICAL

PRACTICAL - TERM 2 (15 Marks)

Distribution of Marks:

- Practical File – 5 Marks
- Viva Voce – 3 Marks
- Administration of one test & report writing – 7 Marks

B. INFORMATICS PRACTICES
(Term I & II)

Month	Name of the Topics	Activity	Learning Outcome
April	Unit 2: Database Query using SQL: MySQL Revision of topics done in class XI. Single row and aggregate functions, querying using Group by, order by.	Creation of a database and Use of various DDL and DML commands. Use of various DML commands with predefined SQL functions.	Create, modify, delete databases and accessing selective data using predefined functions from database. Able to create & manipulate relational database.
May	Unit 2: Operations on Relations - Union, Intersection, Minus, Cartesian Product, JOIN (Cartesian Join, Equi Join, Natural Join) Periodic Test 1	Operations on two or more tables. Evaluation test	Operations on two or more tables simultaneously stored in a database.

July	<p>Unit 3: Introduction to Computer Networks : Introduction, Types of network & Network Devices, Topology, Internet and its applications, websites and web browsers.</p> <p>Unit 1 :Data Handling using NumPy</p>	<p>Identification of computer network in computer lab and network devices used.</p> <p>Setting of a web browser.</p> <p>Explain what is 'data' and analyse using NumPy.</p>	<p>Categorization, identification and purpose of network & its devices.</p> <p>Usage of various web applications.</p> <p>Customization of a web browser as per one's needs.</p> <p>Usage of ndarrays for storing data.</p>
August	<p>Unit 1 :Data Handling using Pandas I</p> <p>Import/Export data between SQL database and Pandas.</p> <p>Data Visualization: Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). Customizing plots:; adding label, title, and legend in plots.</p> <p>Project</p>	<p>Developing Python programs using Series and DataFrames.</p> <p>Generation of various types of graphs and their customization.</p> <p>Data creation for project.</p>	<p>Dealing with data structures of Python – Series and DataFrames</p> <p>Ability to create proper back end data structure for storing data.</p> <p>Visualize data using relevant graphs</p>
Sept.	<p>Unit 4: Societal Impacts (Complete Unit)</p> <p>Revision for PT2</p> <p>Periodic Test 2</p>	<p>Classification of software into OSS and proprietary category.</p> <p>Identification of e-waste and Minimization of e-waste</p> <p>Questionnaires</p>	<p>Identification of software categories.</p> <p>Awareness about health concerns while using technology.</p> <p>Recall</p>
October	<p>Unit 1: Data Handling using Pandas -II</p> <p>Project</p>	<p>Developing Python programs on data aggregation and statistical functions.</p>	<p>Perform aggregation operations, calculate descriptive statistics.</p>
November	<p>Revision</p> <p>Term 1 Exam.</p> <p>Practical exam.</p> <p>Project</p>	<p>Questionnaires</p>	<p>Recall</p>
December	<p>Revision</p> <p>Term 1 Exam.</p> <p>Practical exam.</p> <p>Project</p>	<p>Questionnaires</p> <p>Question paper</p>	<p>Recall</p> <p>Evaluation</p>

January	Periodic Test 3 Pre-Board I	Questionnaires Question paper	Evaluation
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C.
D.

Syllabus for P1	Unit 2 – CHAPTER 1
Syllabus for P2	Unit 1 – CHAPTER 2
Syllabus for Term 1	Unit 1 & 4 – CHAPTERS - 2, 4,6
Syllabus for P3	Unit 3 – Chapter 5
Syllabus for Pre-Board I	Whole Syllabus – Unit 1, 2, 3 & 4 – CHAPTERS – 1,2,4,5,6

Text Book : Informatics Practices – A Textbook for class XII published by NCERT.

Reference Book : Informatics Practices for class XII written by Preeti Arora, Published by Sultan Chand

TERM - 1
Distribution of Theory Marks

Unit No	Unit Name	Marks
1	Data Handling using Pandas and Data Visualization	25
4	Societal Impacts	10
	Total	35

Distribution of Practical Marks

Topic	Marks
Pandas program (pen and paper or Collab or any online idle or pyroid screen for mobile)	8
Practical File 15 Pandas Programs	3
Project synopsis	2
Viva	2
Total	15

SNO.	TEST / EXAM	UNIT/ CHAPTER(S)
1.	PT1	UNIT 2 – CHAPTER 1
2.	PT2	UNIT 1 – CHAPTER 2
3.	TERM1	UNIT 1,4 – CHAPTER 2,4,6

TERM - 2

Distribution of Theory Marks

Unit No	Unit Name	Marks
2	Database Query using SQL	25
3	Introduction to Computer Networks	10
	Total	35

Distribution of Practical Marks

Topic	Marks
SQL queries (pen and paper)	7
Practical File – 12 SQL Queries	2
Final Project Submission	3
Viva	3
Total	15

SNO.	TEST / EXAM	UNIT/ CHAPTER(S)
1.	PT3	UNIT 3 – CHAPTER 5
2.	TERM2	UNIT 1,2,3,4 – CHAPTER 1,2,4,5,6

C.PHYSICAL EDUCATION

Month	Name of the Topics	Activity	Learning Outcome
TERM-I			
April	Unit 1: Planning in Sports Meaning & Objectives Of Planning Various Committees & its Responsibilities (pre; during & post) Tournament – Knock-Out, League Or Round Robin & Combination Procedure To Draw Fixtures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)	Draw Tournament Fixtures	Planning of sports events, Organising Tournaments and drawing various types of fixtures.

May	<p>Unit 2: Sports & Nutrition Balanced Diet & Nutrition: Macro & Micro Nutrients Nutritive & Non-Nutritive Components Of Diet Eating For Weight Control – A Healthy Weight, The Pitfalls of Dieting, Food, Intolerance & Food myths Periodic Test 1</p>	<p>Measures to take for weight control. Oral test</p>	<p>Learnt to decide balanced diet with nutritive components. Healthy weight control. Drawbacks of dieting.</p>
July	<p>Unit 5: Children & Women in Sports Motor development & factors affecting it Exercise Guidelines at different stages of growth & Development Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis and their corrective measures Sports participation of women in India</p>	<p>Observation of common postural deformities. Exercise guidelines at different stages of growth and development</p>	<p>Knowledge of exercises at different stages of growth and development, common deformities,Participation of Indian women at different levels in Sports</p>
August	<p>Unit 6 : Test & Measurement in Sports Motor Fitness Test – 50 M Standing Start, 600 M Run/Walk, Sit & Reach, Partial Curl Up, Push Ups (Boys), Modified Push Ups (Girls), Standing Broad Jump, Agility – 4x10 M Shuttle Run o Measurement of Cardio Vascular Fitness – Harvard Step Test/Rockport Test - D uration of the Exercise in Seconds x 100 5.5 x Pulse count of 1-1.5 Min after Exercise o Rikli& Jones - Senior Citizen Fitness Test</p>	<p>Sample tests</p>	<p>Knowledge of all the tests related to check physical fitness of normal human beings and senior citizen</p>

Sept.	<p>Unit 8: Biomechanics & Sports</p> <ul style="list-style-type: none"> ● Meaning and Importance of Biomechanics in Sports ● Types of movements (Flexion, Extension, Abduction & Adduction) ● Newton's Law of Motion & its application in sports <p>Periodic Test 2</p>	Exercise on showing connectivity between Newton's Law of Motion and sports.	Knowledge about Biomechanics in Sports.
TERM-II			
October	<p>Unit 3: Yoga & Lifestyle</p> <p>Asanas as preventive measures Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, ArdhMatsyendrasana Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, PavanMuktasana, ArdhMatsyendrasana Asthma: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana Hypertension: Tadasana, Vajrasana, PavanMuktasana, ArdhaChakrasana, Bhujangasana,</p>	Project File on one sport/game of choice	Knowledge of a sport/game thoroughly.

November	<p>Unit 4: Physical Education & Sports for CWSN (Children with Special Needs - DIVYANG) Concept of Disability & Disorder Types of Disability, its causes & nature (cognitive disability, intellectual disability, physical disability) Types of Disorder, its cause & nature (ADHD, SPD, ASD, ODD, OCD) Disability Etiquettes Strategies to make Physical Activities assessable for children with special need.</p>	Project File on one sport/game of choice	Knowledge of a sport/game thoroughly.
December	<p>Unit 7: Physiology & Injuries in Sports • Physiological factor determining component of Physical Fitness • Effect of exercise on Cardio Respiratory System • Effect of exercise on Muscular System • Sports injuries: Classification (Soft Tissue Injuries:(Abrasion, Contusion, Laceration, Incision, Sprain & Strain) Bone & Joint Injuries: (Dislocation, Fractures: Stress Fracture, Green Stick, Communated, Transverse Oblique & Impacted) Causes, Prevention& treatment • First Aid – Aims & Objectives</p>	Project File on one sport/game of choice	Knowledge of a sport/game thoroughly.
January	<p>Unit 9: Psychology & Sports • Personality; its definition & types – Trait & Types (Sheldon & Jung Classification) & Big Five Theory • Motivation, its type & techniques • Meaning, Concept & Types of Aggressions in Sports</p>	Project File on one sport/game of choice	Knowledge of a sport/game thoroughly.

February	Unit 10: Training in Sports • Strength – Definition, types & methods of improving Strength – Isometric, Isotonic & Isokinetic • Endurance - Definition, types & methods to develop Endurance – Continuous Training, Interval Training & Fartlek Training • Speed – Definition, types & methods to develop Speed – Acceleration Run & Pace Run • Flexibility – Definition, types & methods to improve flexibility • Coordinative Abilities – Definition & types	Project File on one sport/game of choice	Knowledge of a sport/game thoroughly.
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Syllabus for P1	:	CHAPTER 1,2
Syllabus for P2	:	CHAPTER 5,6
Syllabus for Term -1	:	CHAPTERS -1, 2, 5,6,8
Syllabus for P3	:	CHAPTER 3,4
Syllabus for Term -2		CHAPTER-3,4 7,9,10

D.PAINTING

Month	Name of the Topic	Activity	Learning Outcome
April	The Rajasthani and Pahari Schools of Miniature Painting (16 th Century A.D. to 19 th Century A.D.) (1) The Origin and Development of Miniature Painting in India	<ul style="list-style-type: none"> Identify the Colours and Make the Difference Charts 	<ul style="list-style-type: none"> To familiarize students with various styles and modes of art expressions from different parts of India. This would enrich their vision and enable them to appreciate and develop an aesthetic sensibility to
May	(2) The Rajasthani Schools of Miniature Painting (3) The Pahari Schools of Miniature Painting	<ul style="list-style-type: none"> Identify the Picture of different Art Style 	
July	The Mughal and Deccan Schools of Miniature Painting (16 th Century A.D. to 19 th Century A.D.) (4) The Mughal School of Miniature Painting	<ul style="list-style-type: none"> Develop PPT 	

August	(5) The Deccan School of Miniature Painting	<ul style="list-style-type: none"> To Document difference between Painting & Sculpture 	enjoy the beauty of nature and life.
September	The Indian National Flag and the Bengal School of Painting (6) Introduction to the Bengal School of Painting (7) Study of the Painting of Bengal School	<ul style="list-style-type: none"> Develop Charts 	<ul style="list-style-type: none"> The students will also have an opportunity to observe and study the evolution of its mutations and synthesis with other style and the rise of an altogether new style. The students will be made aware of art as a human experience.
October	(8) Contribution of Indian artists in the Struggle for National Freedom Movement (9) Evolution of the Indian National Flag	<ul style="list-style-type: none"> Identify the Picture of Different Art Styles 	
November	(10) The Modern Trends in Indian Art (11) Paintings of the Contemporary (Modern) Indian Artists (12) Graphic prints of the Contemporary (Modern) Indian Artists (13) Sculptures of the Contemporary (Modern) Indian Artists	<ul style="list-style-type: none"> Develop PPT Identify the Picture of different Art Style 	

Term Wise Syllabus Painting Class 12

Syllabus for P1:	The Rajasthani and Pahari Schools of Miniature Painting
Syllabus for P2:	The Mughal and Deccan Schools of Miniature Painting (16 th Century A.D. to 19 th Century A.D.)
Syllabus for Half Yearly:	The Rajasthani and Pahari Schools of Miniature Painting The Mughal and Deccan Schools of Miniature Painting (16 th Century A.D. to 19 th Century A.D.)
Syllabus for P3:	The Indian National Flag and the Bengal School of Painting The Modern Trends in Indian Art
Syllabus for Annual Exam	Complete Syllabus

Subject: FINE ARTS-PAINTING (Practical) Class 12th

Month	Name of the Topic
April	Nature and Object Study
May	Nature and Object Study
July	Nature and Object Study
August	Painting-Composition
September	Painting-Composition

October	Painting-Composition
November	Painting-Composition
December	Portofolio Assessment
January	Portofolio Assessment
February	Portofolio Assessment

**Theory: Term-I 15 Marks, and Term-II 15 Marks
Marks**

Total: 30

Unit wise Weightage

Term	Unit1(a)	Content	Marks
I	1	The Rajasthani and Pahari Schools of Miniature Painting	8
	2	The Mughal and Deccan Schools of Miniature Painting	7
II	3	The Bengal School of Painting	8
	4	Indian National flag and the Modern Trends in Indian Art	7
			30

(PRACTICAL)

Term I

35

Marks

	Painting Composition Imaginative painting based on subjects from Life and Nature in water and poster colours with colour values.	25 arks
	Portfolio Assessment a) Record of the Term, performance from sketch to finished product b) One selected work based on any Indian Folk Arts (Painting) c) Two selected works of paintings done during the Term	10 Marks 5 Marks 2 Marks 3 Marks

Term II

35 Marks

	Nature and Object Study Studies on the basis of exercises done in class XI with two or three objects and two draperies (in different colours) for background and foreground. Exercises in pencil with light and shade and in full colour from a fixed point of view.	25 arks
	Portfolio Assessment a) Record of the Term, performance from sketch to finished product	10 Marks 5 Marks 5 Marks

	b) Four selected nature and object study exercises in any media done during the Term	
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E. HOME SCIENCE
Term-1 & Term-2

Month	Name of the Topic	Activity	Learning outcome
April	Unit III: Human Development and Family Studies Chapter 7: Early Childhood Care and Education Chapter 9: Special Education and Support Services Chapter 10: Management of Support Services, Institutions	Design poster to communicate socially relevant message.	<ul style="list-style-type: none"> Students will understand the basic principles of Early Childhood Care and Education (ECCE)
May	Unit V: Resource Management Chapter 20 Consumer Education and Protection	Prepare report for consumer redressal	<ul style="list-style-type: none"> Students will know the basic concept of Consumer Education and Protection
July	Unit IV: Fabric And Apparel Chapter 11: Design for Fabric And Apparel Chapter 12: Fashion Design And Merchandizing	Preparation of article using applied textile design technique	<ul style="list-style-type: none"> Children will be able to recognize the elements the constitute design
August	Unit I: Work, Livelihood and Career (Chapter 1) Unit II: Nutrition, Food Science and Technology Chapter 2: Clinical Nutrition and Dietetics	Modification of normal diet according to physiological state	<ul style="list-style-type: none"> Children will be able to understand the concept of quality of life Students will be able to understand and describe the significance of clinical nutrition
September	Unit II: Nutrition, Food Science and Technology Chapter 3: Public Nutrition and Health Chapter 5: Food Processing and Technology	Preparation of Supplementary Food Prepare and evaluate Processed Food Product	<ul style="list-style-type: none"> Students will understand the significance of public nutrition
October	Unit II: Nutrition, Food Science and Technology Chapter 6: Food Quality and Safety Unit V Resource Management Chapter 17: Hospitality Management	Test of Food Adulteration	<ul style="list-style-type: none"> Students will know about national and international food standards and their role in ensuring food quality and safety
November	Unit V: Resource Management Chapter 18: Ergonomics and Designing of Interior and Exterior Spaces	Prepare a case study of PR agency	<ul style="list-style-type: none"> Students will be able to explain the concept of interior
December	Chapter 19: Event Management		

	Unit VI Communication and Extension		and exterior space design <ul style="list-style-type: none"> Students will understand the importance of communication for social change and development
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Subject: HOME SCIENCE (XII)

Term-1 (Course Structure)

Unit No.	Units	Marks
1.	Work, Livelihood and Career	05
2.	Nutrition, Food Science and Technology	20
3.	Human Development and Family Studies	10
	Total	35

Term-II (Course Structure)

Unit No.	Unit	Marks
4.	Fabric and Apparel	16
5.	Resource Management	12
6.	Communication and Extension	07
	Total	35

Examination wise-Syllabus

Syllabus for P-1	Chapter-7,9,10
Syllabus for P-2	Chapter-1,2,5
Half Yearly	Chapter-1,2,3,5,6,7,9,10
Practical/Project	

Term-II

Syllabus for P-3	Chapter- 11,12,15
Boards	Chapter-11,12,15,17,20,21,23
Practical and Project	

Practical

- (1) Record modification of a normal diet to soft diet for elderly person.
- (2) Qualitative tests for food adulteration in: pure ghee, tea leaves, whole black pepper, turmeric powder, milk asafetida.
- (3) Preparation of one teaching aid to communicate social messages for children/adolescents in community.

Art Integrated Learning Project (AIL)with paired State Assam

- 1.Power Point presentation on Bamboo Art of Assam