

ANNUAL CURRICULUM PLAN

CLASS: XII (Science)

SESSION (2023 – 2024)



ENGLISH (Core) (301) - XII -2023 -24

MONTH & WORKING DAYS	TOPICS TO BE COVERED	LEARNING OUTCOMES Students will be able to:
April (23)	<ul style="list-style-type: none"> • Flamingo: The Last Lesson, Lost Spring and My Mother at Sixty Six • Writing Skills : Letter to the Editor and Notice Writing 	<p>The Last Lesson:</p> <ul style="list-style-type: none"> • Understand the language is a key to prison, know the importance of mother tongue and understand the wastefulness of war. <p>Lost Spring:</p> <ul style="list-style-type: none"> • Understand the miserable plight of street children forced into labour early in life, analyse that there are millions of children experiencing no spring their lives, for their childhood is consumed in making a living. <p>My Mother at Sixty Six:</p> <ul style="list-style-type: none"> • Read the poem with proper expressions, pauses and voice modulation; understand and share the loneliness of aged; understand the importance of our duties towards the elderly people.
May (27)	<ul style="list-style-type: none"> • Revision PT 1 • Vistas: The Third Level, The Tiger King; Journey to the End of the Earth; The Enemy. 	<p>The Third Level:</p> <ul style="list-style-type: none"> • Identify and make connections between similar situations in own life experiences. • Understand the contrast between the fantasy world and real world <p>The Tiger King:</p> <ul style="list-style-type: none"> • Understand that there is a need of a new system for the age of ecology i.e a system which is embedded in the care of all people and also in the care of the Earth and all life upon it. • Understand that it is inappropriate to prove or disprove astrological predictions <p>Journey to the End of the Earth:</p> <ul style="list-style-type: none"> • Understand that millions of years ago humans hadn't arrived and the climate was much warmer with a variety of flora and fauna. • Understand that to study the Earth's past, present and future, Antarctica is the place – the world's geological history is in Antarctica.

		<p>The Enemy:</p> <ul style="list-style-type: none"> Conclude that people of the world are inherently the same despite the differences in colour , culture & nationalities.
June	Summer Vacations	
July (26)	<ul style="list-style-type: none"> Flamingo: Deep Water; The Rat Trap; Keeping Quiet Writing Skills : Invitations ; Article Writing; Report Writing 	<p>Deep Water:</p> <ul style="list-style-type: none"> Understand that most challenging situations could be overcome with immense courage and determination. Understand that there is terror only in the fear of death and at death there is peace Understand that the essential goodness in a human being can be awakened through love, respect, kindness and understanding. <p>The Rattrap:</p> <ul style="list-style-type: none"> Understand that material benefits are the traps that most human being are prone to fall into. <p>Keeping Quiet :</p> <ul style="list-style-type: none"> Understand that introspection makes us find our flaws and gives us the opportunity to rectify them Think critically, understand not to harm others, remain quiet and still be productive and active
August (25)	<p>Revision PT II</p> <ul style="list-style-type: none"> Flamingo: Indigo; Poets and Pancakes; The Interview; Going Places Writing Skills: Applications for Job; Invitation writing 	<p>Indigo:</p> <ul style="list-style-type: none"> Understand that role of a leader and the importance of rights. Know the sufferings and contributions of freedom fighters and understand that freedom from fear is a prerequisite for justice. Take Initiative with a sense of responsibility and confidence. <p>Poets and Pancakes:</p> <ul style="list-style-type: none"> Gain knowledge of Gemini Studios and the people from different regions and religions working together and their working conditions. Understand that good poetry and music are the deciding factor in the popularity of the film. <p>Going Places :</p> <ul style="list-style-type: none"> Compare their world of fantasy and reality in life and responsibilities in the family.

		<ul style="list-style-type: none"> Analyse the difference between realistic and unrealistic dreams and understand that there is no substitute to hard work.
September (25)	Revision and Half Yearly Examination	
October (22)	<ul style="list-style-type: none"> Flamingo: A Thing of Beauty; Aunt Jenifer's Tigers; Roadside Stand Vistas: On the Face of it, Memories of Childhood Writing Skills : Applications for Job; Report Writing 	<p>A Thing of Beauty:</p> <ul style="list-style-type: none"> Learn from the stories of great people that beauty dwells inside us and gives us happiness; appreciate and admire the beauty of nature and the varied definitions of beauty. <p>Aunt Jenifer's Tigers:</p> <ul style="list-style-type: none"> Understand that man and woman are equal and even females have inherent desires and they deserve freedom: mental and emotional both. Empathise with the victims of male chauvinism and raise voice against domestic violence. <p>A Roadside Stand:</p> <ul style="list-style-type: none"> Understand the contrast between the lives of rich and poor and understand that the economic well-being of a country depends on a balanced development of the villages and the cities. <p>On The Face of It:</p> <ul style="list-style-type: none"> Gain insight into the loneliness of physically handicapped and understand that a person with physical impairment expects good and normal behavior from others and respect them for what they are. Realise that pain of actual physical impairment is often much less than the sense of alienation felt by the person with disabilities. <p>Memories of Childhood:</p> <ul style="list-style-type: none"> Learn how to respect people from different culture and reflect their own/right perspective of treating underprivileged and marginalized community.
November (21)	Revision PT III and Project Work	
December (25)	Revision Pre-Board I	
January (17)	Revision Pre Board II	

February (25)	
March (25)	Annual Board Examination

Exam wise syllabus distribution:-

- **P.T-I** : The Last Lesson ; My Mother at Sixty Six ; The third level;
- Letter To Editor, Notice writing
- **P.T-II**: Lost Spring; Deep Water; The Rattrap; Poem: Keeping Quiet, Invitation; Job application

Half Yearly : The Last Lesson ; Lost Spring; My Mother at Sixty Six ;The Third level ; The Tiger King ; Journey to the end of the earth ; The Enemy, Keeping Quiet; Deep Water ; TheRattrap; Indigo; Invitations; Notice writing; Report writing ; Letter To Editor (Formal), Job application, Article Writing

PT-III: A Thing of Beauty; Aunt Jenifer's Tigers; On The Face Of It; Memories of Childhood ; Roadside Stand.

Pre Board -I: FULL SYLLABUS

Pre Board-II: FULL SYLLABUS EXAMINATION SPECIFICATIONS

TIME: 3 HOURS MARKS: 80 SECTION - A (READING) (20 MARKS)

Q 1 Unseen Passage to assess comprehension, interpretation and inference (12 Marks)

Q 2 Unseen Case based passage with verbal/visual inputs like statistical data, charts etc.

SECTION - B (ADVANCED WRITING SKILLS) (20 MARKS)

Q3. Short & Long writing Tasks.

One out of two short compositions not more than 50 words. Eg: Notices, Invitations & Replies. (5 Marks)

Long answers questions: Letters to Editor & Application for jobs (5 Marks)

Very Long answer questions based

On visual / verbal input eg. : Article writing or Report writing. (5 Marks)

SECTION - C (LITERARY TEXT) (30 Marks) Flamingo (Main Reader) Vistas (Supplementary Reader)

Q 4 Reference to the context.

- i. One poetry extract out of two from the book Flamingo to assess comprehension, interpretation, analysis and appreciation. (6 Marks)
 - ii. One Prose extract out of two from the book Vistas to assess comprehension, interpretation, analysis and appreciation. (4 Marks)
 - iii. One prose extract out of two from the book Flamingo to assess comprehension, interpretation, analysis and appreciation. (6 Marks)
- Q 5 Short answers questions – based on prose and poetry from the book Flamingo to be answered in 40-50 words. (5×2=10 Marks)
- Q 6 Short answers questions – based on prose and poetry from the book Vistas to be answered in 40-50 words. (2×2=4 Marks)
- Q 7 One Long answer type question based from prose/poetry (Flamingo) to be answered in 120-150 words. (1×5=5 Marks)
- Q 8 One Long answers type question based on the chapters from the book the Vistas to be answered in 120-150 words. (1×5=5 Marks)

REFERENCE BOOK: BBC

PAPER DESIGN

Typology	Testing Competencies	Objective Type Question including MCQs(1 mark each)	Short Answer Questions (2 marks each)	Short Answer Question (4 marks each)	Long Answer Question 120-150 words (6 marks each)	Very Long Answer Question 150-200 words (HOTS) (10 marks each)	Total marks
Comprehension	Conceptual understanding, decoding, Analyzing, inferring, interpreting, appreciating, literary conventions and vocabulary, summarizing and using appropriate format/s	MCQ = 5 Objective Type Questions = 7	-	2	-	-	20
Writing Skills	Reasoning, appropriacy of style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity	-	-	1	1	2	30
Literature Textbooks and Supplementary Reading Text	Recalling, reasoning, appreciating literary convention, inference, analysis, creativity with fluency	8 Objective Type Questions (4 from 1 prose and 4 from 1 poetry extract)	5	-	2	-	30
	TOTAL	1x20=20	2x5=10	4x3=12	6x3=18	10x2=20	80
Assessment of Listening and Speaking Skills		-	-	-	-	-	20
	GRAND TOTAL	-	-	-	-	-	100

MATHEMATICS (041) XII (2023-2024)

Month(No. Of working days) Topics to be covered	Concept/ Mathematics Activities	Objective / expected learning outcome
April(23) Ch-1: Relations and functions Ch-2: Inverse trigonometric functions. Ch-3: Matrices	<ul style="list-style-type: none"> • To draw the graph of $\sin^{-1} x$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$) • To explore the principal value of the function $\sin^{-1} x$ using a unit circle. 	Students will be able to understand : <ul style="list-style-type: none"> ➤ Definition, range, domain, principal value branch. Graphs of inverse trigonometric Functions Elementary properties of inverse trigonometric functions. ➤ Types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication with a scalar. Simple properties. Concept of elementary row and column operations.
May(27) Revision PT I Ch- 4: Determinants Ch 5: Continuity and differentiability Ch- 6: Applications of derivatives.	<ul style="list-style-type: none"> • To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point. • To verify Rolle's Theorem & Lagrange's Theorem • To understand the concepts of decreasing and increasing functions 	Students will be able to understand : <ul style="list-style-type: none"> ➤ Determinant of a square matrix (up to 3×3 matrices), properties of determinants, minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency. ➤ Continuity and differentiability, derivative of composite functions, chain rule, derivative of inverse trigonometric functions, derivative of implicit functions. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems. ➤ Applications of derivatives: rate of change of bodies, increasing/decreasing functions, tangents and normal use of derivatives in approximation, maxima and minima, first derivative test and second derivative test.
June	Summer Vacations	
July(26) Ch-7: Integrals Ch- 8: Application of integrals	<ul style="list-style-type: none"> • To evaluate the definite integral $\int_a^b (1 - x^2) dx$ as the sum and verify it by actual integration. 	Students will be able to understand : <ul style="list-style-type: none"> ➤ Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types. ➤ Applications in finding the area under simple curves, especially lines, circles/ parabolas/ ellipses.

<p>August(25)</p> <p>Revision PT II</p> <p>Ch- 9 Differential equations</p> <p>Ch-10: Vector Algebra</p> <p>Ch- 11: Three dimensional Geometry</p>	<ul style="list-style-type: none"> • To verify geometrically that $c \times (a + b) = c \times a + c \times b$ • To demonstrate the equation of a plane in normal form. To measure the shortest distance between two skew lines and verify it analytically. 	<p>Students will be able to understand :</p> <ul style="list-style-type: none"> ➤ Definition, order and degree, general and particular solutions of a differential equation. Formation of differential equation whose general solution is given. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. ➤ Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors. ➤ Properties and application of scalar (dot) product of vectors, vector (cross) product of vectors, scalar triple product of vectors. ➤ Shortest distance between two lines. Cartesian and vector equation of a plane. Angle between two lines, two planes, a line and a plane.
September (25)	Revision and Half Yearly Examination	
<p>October(22)</p> <p>Ch-12: Linear programming</p> <p>Ch 13: Probability</p>	<ul style="list-style-type: none"> • To explain the computation of conditional probability of a given event A, when event B has already occurred through an example of throwing a pair of dice. 	<p>Students will be able to understand :</p> <ul style="list-style-type: none"> ➤ Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution. ➤ objective function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P. problems, graphical method of solution for problems in two variables, feasible and infeasible regions , feasible and infeasible solutions, optimal feasible solutions.
November(21)	.Revision PT III and Lab Manuals	
December(25)	Pre-Board-I	
January(17)	Pre-Board-II	
February(25)	PRACTICALS	
March (13)	FINAL BOARD EXAM	

Names of Text Books:

1. Mathematics Part I for Class XII Publisher: NCERT
2. Mathematics Part II for Class XII Publisher: NCERT
3. Reference Book: RD . SHARMA

EXAMINATION SYLLABUS:

PT-I Ch. 2 to 4	PT II Ch. 5 to 7	P.T-III Ch. 7 to 10	Half Yearly : Ch. 1 to 7
Pre Board 1		Full Syllabus	
Pre Board 2		Full Syllabus	

CURRICULUM PLAN SUBJECT: PHYSICS (042) CLASS XII (2023-24)

Month	No. of working days	Lesson no. and Lesson Name	Activities / practical	Learning Outcomes Students will be able to :
April	23	Ch-1. Electric charges and fields Ch.-2 Electrostatics potential and Capacitance	Practical-. To determine resistance per cm of a given wire by plotting a graph of potential difference versus current. . Activity 1: to measure the resistance and impedance of an inductor with or without iron core.	<ul style="list-style-type: none"> • Understand about the charges, force and potential of the circuit. • Understand about the concept of capacitor or to storage capacity. • Understand about the electric fields and its properties in different areas in electric component.
May	27	Revision PT 1 Ch-3. Current Electricity Ch.-4 Moving Charges and Magnetism	Practical – 1. To find the resistance of a wire using meter bridge. Practical – 2 To verify the law of combination (series) of resistances using a meter bridge. Activity – To measure resistance, voltage, current and check continuity of a given circuit using multimeter.	<ul style="list-style-type: none"> • Understand about the current and current carries. • Understand the ohm's law $V=IT$ • Understand about the magnetism and its properties. • Understand about Lorentz force regarding the magnet.
June	Summer Vacations			
July	26	Ch. – 5 Magnetism and matter. Ch. – 6 Electromagnetic induction	Practical – to verify the law of parallel combination using meter bridge. Activity – 3 To assemble the components of a given circuit.	<ul style="list-style-type: none"> • Understand the working of cyclotron. • Understand about electromagnetic induction which gave by faraday. • Understand the various phenomenon like eddy current, self- induction and mutual induction
August	25	Revision for PT II Ch.7 Alternating current	Practical – To determine resistance of a Galvanometer by half – deflection	<ul style="list-style-type: none"> • Understand about the value to current and impedance triangle. • Understand about HERTZ experiment

		Ch. 8 Electromagnetic waves Ch. 9 Ray optics and optical Instrument	method and to find its figure of merits. Practical – To convert the given Galvanometer into a volunteeer of desired range and to verify the same. Activity – To study the variation in potential drop with length of a wire for a steady current..	which proved light have a wave nature. <ul style="list-style-type: none"> • Understand about the reflection and refraction of light. • Law of reflection $\angle i = \angle r$.
September	25	Revision Half Year Exam Ch. 10 Wave Optics	Practical – To find the focal length of convex mirror, using a convex lens. Practical – To find the focal length of a concave lens using a convex lens	<ul style="list-style-type: none"> • Find the interference pattern of light . • Work on diffraction and polarization of light.
October	22	Ch. 11 Dual nature of radiation and matter. Ch. 12 Atoms Ch. 13 Nuclei Ch. 14 Semiconductor; materials, device and electric circuit	Practical – To find refractive index of a liquid by using convex lens and plane mirror. Activity – To identified a diode, an LED, A translator, an IC, a resistor and a capacitor from a mixed collection of such items. Practical – To draw the I – V characteristics curve for a p-n junction in forward bias and reverse bias.	<ul style="list-style-type: none"> • Understand the dual nature of light and particle which gave by bohr's theory. • Understand about atoms and nuclei and phenomenon and mass number. • Understand about the energy and spin of the atom and nuclear fusion and fission condition of the atom. • Understand about the logic gates and use of semiconductors on modern life.
November	21	<ul style="list-style-type: none"> • Revision PT 3 and Practical files 		
December	25	<ul style="list-style-type: none"> • Pre Board 1 		
January	17	<ul style="list-style-type: none"> • Pre Board 2 		
February	25	<ul style="list-style-type: none"> • Board Practical 		
March	13	<ul style="list-style-type: none"> • Annual Board Exams 		

Exam wise syllabus distribution:-

PT 1: Ch-1 and 2

PT 2: Ch-3 to 5

Half Yearly: Ch. 1 to Ch.7,

PT 3: Ch 10,11,12

Pre Board 1 – Full Syllabus

Pre Board 2 – Full Syllabus

Annual Examination: full syllabus.

Suggested investigatory projects

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To find refractive indices of (a) water (b) oil using a plane mirror, an equiconvex lens and an adjustable object needle.
3. To design an appropriate logic gate combination for a given truth table.
4. To set up a common base transistor circuit and to study its input and output characteristics and to calculate its current gain.
5. To study the earth's magnetic field using a tangent galvanometer.
6. To construct a switch using a transistor and to draw the graph between the input and output voltage and mark the cut-off, saturation and active region. Books references

Text book for class 12th volume-1 & 2 published by NCERT

Reference Books : Pradeep Fundamental , S.L. Arora

PAPER DESIGN:

QUESTION PAPER DESIGN

Theory (Class: XI/XII)

Maximum Marks: 70

Duration: 3 hrs.

S	Typology of Questions	Total Marks	Approximate Percentage
1	Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	27	38 %
2	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	22	32%
3	Analysing : Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	21	30%
	Total Marks	70	100
	Practical	30	
	Gross Total	100	

Note:

The above template is only a sample. Suitable internal variations may be made for generating similar templates keeping the overall weightage to different form of questions and typology of questions same.

For more details kindly refer to Sample Question Paper of class XII for the year 2022-23 to be published by CBSE at its website.

CHEMISTRY (043)

Month & Working Days	Chapter Number and Chapter Name	Activities/ Lab Experiments	Learning Outcomes (Students will be able to :)
April (23)	Unit 2: Solutions Unit 3: Electrochemistry	Experiments related to determination of concentration of KMnO_4 solution by titrating it against a standard solution of oxalic acid, ferrous, ammonium sulphate.	Solutions: <ul style="list-style-type: none"> Describe the formation of types of solutions/Express concentration of solution of different units/state and explain Henry's Law /Raoult's law/Distinguish between ideal and non-ideal solutions/ describe the colligative properties. Electrochemistry: <ul style="list-style-type: none"> Describe various types of cell/Nernst equation/Molar and Ionic Conductance /Kohlrausch law and its applications
May (27)	Revision PT I Unit 4: Chemical Kinetics Unit 8: d and f block elements	Experiments related to separation of components by chromatography.	Chemical Kinetics: <ul style="list-style-type: none"> Determine the rate constant/molecularity/ order of reaction/ apply Arrhenius equation and activation energy/ explain role of catalyst with help of energy profile diagram/ understand mechanism of reaction. D and F Block Elements: <ul style="list-style-type: none"> Describe d and f block elements/ writing their electronic configuration/ explanation for their magnetic moment and color/ learning to write ionic equations/ explanation for lanthanoid and actinoid contractions.
June	Summer Vacations		
July (26)	Unit 9: Coordination Compounds Unit 10: Halo Alkanes and Halo Arenes	Experiments related to preparation of inorganic compounds.	Coordination Compounds: <ul style="list-style-type: none"> Formation of coordination compounds/ theory of coordination compounds.
August (25)	Revision PT II Unit 11: Alcohols, Phenols and Ethers Unit 12: Aldehydes, Ketones and Carboxylic Acids	Qualitative Analysis: Determination of one cation and one anion in a given salt.	<ul style="list-style-type: none"> Preparation and properties of organic compound and its conversion/ correlate structure with various properties.
September (25)	Revision and Half Yearly Examination		
October (22)	Unit 13: Amines Unit 14: Biomolecules	Experiments related to test for : <ul style="list-style-type: none"> Functional group in organic compounds Carbohydrates and Fats in food stuff. 	<ul style="list-style-type: none"> Preparation and properties of organic compound and its conversion/ correlate structure with various properties. Structure and properties of biomolecules and its importance in living body/ correlate structure with various properties.

November (21)	Revision PT III and Project Work
December (25)	Revision and Pre Board I
January (17)	Revision and Pre-Board II
February (25)	
March (13)	Annual Board Exams

Exam wise syllabus distribution:-

PT 1: Ch.-2

PT 2: Ch.-3, Ch.-4, Ch.-8, Ch-9

PT 3: Ch 10 and 11

Term 1: Ch.-2, Ch.-3, Ch.-4, Ch.-8, Ch.-9

Pre-board- Based on complete syllabus.

Prescribed Text Books:

- CHEMISTRY XII PART-1 NCERT TEXTBOOK
- CHEMISTRY XII PART-2 NCERT TEXTBOOK
- CHEMISTRY LAB MANUAL as per CBSE syllabus (published by full marks)
- Reference Books: Pradeep's new course chemistry by Dhawan and Khetrpal

PAPER DESIGN:

S. No.	Typology of Questions	Very Short Answer-Objective type (VSA) (1 Mark)	Short Answer-I (SA) (2Marks)	Long Answer-I (LA-I) (3 marks)	Long Answer-II (LA-II) (5 marks)	Total Marks	% Weightage
1	Remembering : Exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers.	2	1	1	-	7	10%
2	Understanding : Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.	6	2	2	1	21	30%
3	Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	6	2	2	1	21	30%
4	Analysing : Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	6	1	2	-	14	20%

	Evaluating: Present and defend opinions by making judgements about information, validity of ideas or quality of work based on a set of criteria.						
	Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	-	1	-	1	7	10%
	TOTAL	20x1=20	7x2=14	7x3=21	3x5=15	70(37)	100%

BIOLOGY (044)

Months & Working Days	Chapter Number & Chapter Name	Activities / Lab Experiments	Learning Outcomes (Students will be able to :)
April (23)	Ch.2 – Sexual Reproduction in Flowering Plants Ch. 3 – Human Reproduction Ch. 4 – Reproductive Health	To study the reproduction in flower, mammal/meiosis in onion bud. To study pollination/ emasculation/ tagging and bagging. To study pollen germination on a slide.	<ul style="list-style-type: none"> Recognize reproduction as an essential process / various modes of reproduction. Development of gamete embryo. The process of human reproduction/ reproductive health/ prevention from STDs.
May (27)	Revision PT I Ch.5 – Principles of Inheritance and variation chromosomal basis of inheritance. Ch. 6 – Molecular basis of Inheritance Ch. 7 – Evolution	To study and analyses dihydic cross/ mendelian inheritance/ pedigree analysis. To identify common diseases/ causative organism through permanent slides.	<ul style="list-style-type: none"> Understand the mendelian inheritance concept / sex determination / chromosomal disorders / DNA as genetic material / central dogma gene / human genome project. Understand the various theories / mechanism of evolution /adaptive radiation.
June	Summer Vacations		
July (26)	Ch. 8 – Human Health and Disease Ch. 10 – Microbes in Human Welfare Ch. 11 – Biotechnology Principles and Processes	To study action of amylase on starch / effect of different temperature on analysis activity. To isolate DNA from plant material.	<ul style="list-style-type: none"> Make out cause of various diseases / basic concept of immunology / vaccination / drugs and abuses / improvement in food production breeding / tissue culture / sewage treatment / energy generation and bio fertilizers. Understand the concept of genetic engineering application of biotechnology for health and agriculture.
August (25)	Revision PT II Ch.–12 Biotechnology and its application Ch. – 13 Organism and Population	To study the soil sample / water sample / particulate matter from two different sites.	<ul style="list-style-type: none"> Understand the process of ecological adaptation, ecosystem and energy flow/ nutrient cycle / biodiversity and its conservation.
September (25)	Revision and Half Yearly Examination		
October (22)	Ch. 14 – Ecosystem Ch. 15 – Biodiversity and its conservation		<ul style="list-style-type: none"> Understand the process of ecological adaptation, ecosystem and energy flow/ nutrient cycle / biodiversity and its conservation.
November (21)	Revision PT III and Practical Files		
December (25)	Pre Board I		
January (17)	Pre Board II		

February (25)	Board Practical
March (13)	Annual Board Exams

Names of Text Books:

- **Biology for Class XI Publisher: NCERT**
- **Comprehensive Biology activities Publication: Laxmi Publication**
- **Reference: Biology by Modern ABC Biology Exam kit by Laxmi Publication**

Exam wise syllabus distribution:-

PT1: Ch- 2, 3

PT 2: Ch. 4, 5, 6, 7, 8

Half-Yearly Examination: Ch-1 to 12.

PT 3: Ch-13 to 16.

Pre-board1- Full Syllabus

Pre-Board-2- Full Syllabus

PAPER DESIGN:

S. No.	Typology of Questions	Very Short Answer (VSA) (2 Marks)	Short Answer-I (SA-I) (2 Marks)	Short Answer-II (SA-II) (3 marks)	Long Answer (LA) (5 marks)	Total Marks	% Weightage
1.	Remembering- (Knowledge based Simple recall questions, to know specific facts, terms, concepts, principles, or theories, Identify, define, or recite, information)	2	1	1	-	7	10%
2.	Understanding- (Comprehension - To be familiar with meaning and to understand conceptually, interpret, compare, contrast, explain, paraphrase information)	-	2	4	1	21	30%
3.	Application (Use abstract information in concrete situation, to apply knowledge to new situations, Use given content to interpret a situation, provide an example, or solve a problem)	-	2	4	1	21	30%
4.	Evaluating & Analysis - Classify, Compare, Contrast, or differentiate between different pieces of information, Organize and/or integrate unique pieces of information from a variety of sources)	2	1	1	1	12	17%
5.	Creating - (Appraise, judge, and/or justify the value or worth of a decision or outcome, or to predict outcomes based on values)	1	1	2	-	9	13%
	TOTAL	5x1=5	7x2=14	12x3=36	3x5=15	70(27)	100%

PHYSICAL EDUCATION (048)

Months (No. of Working days)	Unit No. and Name	Learning Outcomes (After going through the units the student/learner would be able to):
April (23)	Unit 1 – Management of Sports Events Unit 2 – Children and Women in sports	<ul style="list-style-type: none"> • Understand the function of sports event management, various committees & their responsibilities. • Fixtures and its procedure. • Develop an understanding of common postural deformities and its corrective measure exercises. • Explain special consideration and Female Athletes Triad.
May (27)	Revision PT 1 Unit – 3 Yoga and the Preventive measure for lifestyle disease. Unit – 4 Physical Education and Sports for CWSN	<ul style="list-style-type: none"> • Understand the concept of Obesity, Asthma, Hyper-tention and Diabetes. • Organisation promoting the disability sports, advantages of the physical activities for the children with special needs, strategies to make physical activity assessable for children with special needs.
SUMMER VACATIONS		
July (26)	Unit – 5 Sports Nutrition Unit – 6 Test and Measurement in sports Unit – 7 Physiology and Injury in sports	<ul style="list-style-type: none"> • Understand the concepts of balanced diet, nutritive and non-nutritive components. • Explain the concept of Fitness test, Rikkli & Jones. • Understand about the physiological factors determining components of physical factors and effect of exercises on muscular and respiratory system.
August (25)	Revision PT 2 Unit – 8 Biomechanics in sports	<ul style="list-style-type: none"> • Explain the various Sports injuries and its classification. • Explain the Newton’s law of motion, Friction & sports, projectile in sports.
September (25)	• Revision and Half Yearly Examination	
October (22)	Unit – 9 Psychology in Sports Unit – 10 Training in Sports.	<ul style="list-style-type: none"> • Understand the concept of personality and its types, aggression, psychological attributes in sports. • Discuss the concept of Talent Identification and Talent Development in Sports, Introduction to Sports Training cycle, Types and method to develop.

November (21)	Revision PT 3 and Practical Files	
December (25)	Revision and Pre- Board 1	
January (17)	Revision and Pre Board 2	
February (25)		
March (13)	Annual Board Examination	

PROJECT ASSESSMENT

S.No.	Topic	Marks
1	Physical Fitness Test	6
2	Games & Sports	7
3	Yogic Practice	7
4	Record File	5
5	Viva	5
6	Total	30

NAME OF TEXT BOOKS : Physical Education and Health (Saraswati Publications; S.P. Publications)

EXAMINATION SYLLABUS :

PT1 : unit 1 and 2 PT 2 : unit 3 and 4 Half Yearly : Unit 1 to 5 PT 3 : Unit 6 and 7 Pre Board I : Full Syllabus

Pre Board II : Full Syllabus