

Syllabus
2021-2022
CLASS XI-A, B SCIENCE

ENGLISH CORE

Month	Name of the Topics	Activity	Learning Outcome
July	Hornbill: Prose <ul style="list-style-type: none"> • The Portrait of a Lady • We're Not Afraid to Die...if We Can All Be Together Poetry <ul style="list-style-type: none"> • A Photograph Snapshots: <ul style="list-style-type: none"> • The Summer of the Beautiful White Horse Notice writing Grammar :Determiner		<ul style="list-style-type: none"> • Identifying the main ideas in the text and making inferences based on information • Reading and comprehending extended texts • Describing distinct literary characteristics of poetic forms • Analysing and extrapolating the ideas
August	Hornbill: Prose <ul style="list-style-type: none"> • Discovering Tut: the Saga Continues Poetry <ul style="list-style-type: none"> • The Laburnum Top Snapshots: <ul style="list-style-type: none"> • The Address • Ranga's Marriage Letter of Complaint, Letter of Enquiry Grammar :Tenses		<ul style="list-style-type: none"> • Ability to obtain, analyse and communicate information • Expressing ideas in an organized manner using appropriate language and format
September	Hornbill: Prose <ul style="list-style-type: none"> • Landscape of the Soul Letter for Placing Order ,Speech Grammar :Re ordering of Sentences Reading Comprehension	Speech	<ul style="list-style-type: none"> • Ability to write coherently and respond imaginatively • Participating in critical conversations and preparing, organizing and delivering ideas
October	Hornbill: Prose	Poster	<ul style="list-style-type: none"> • Identifying the social issues raised • Learning to select correct interpretations and

	<ul style="list-style-type: none"> The Ailing Planet: The Green Movement's Role The Browning Version <p>Poetry</p> <ul style="list-style-type: none"> The Voice of the Rain <p>Snapshots:</p> <ul style="list-style-type: none"> Albert Einstein at School <p>Letter to the School/College Authorities, Debate Grammar : (Determiners, Tenses, Re-ordering of Sentences)</p>		solutions to conceptual problems
November	<p>Hornbill:</p> <p>Poetry</p> <ul style="list-style-type: none"> Childhood <p>Snapshots:</p> <ul style="list-style-type: none"> Mother's Day <p>Posters</p>		<ul style="list-style-type: none"> Reading, comparing, contrasting, thinking critically and relating ideas to life Analysing plays for their structure and meaning, using correct terminology
December	<p>Hornbill:</p> <p>Prose</p> <ul style="list-style-type: none"> Silk Road <p>Snapshots:</p> <ul style="list-style-type: none"> Birth <p>Reading Comprehension</p>		<ul style="list-style-type: none"> Developing greater confidence and proficiency in the use of language skills

SECTION	TERM I	WEIGHTAGE (IN MARKS)	TERM II	WEIGHTAGE (IN MARKS)
A	<p>Reading Comprehension:</p> <ul style="list-style-type: none"> Unseen passage (factual, descriptive or literary/ discursive or persuasive) Case Based Unseen(Factual) Passage 	<p>8</p> <p>+</p> <p>5</p> <p>= 13</p>	<p>Reading Comprehension:</p> <ul style="list-style-type: none"> Unseen passage (factual, descriptive or literary /discursive or persuasive) Unseen passage for Note Making and Summarizing 	<p>8</p> <p>+</p> <p>5</p> <p>= 13</p>
B	<p>Creative Writing Skills and Grammar:</p> <p><u>Short Writing Tasks</u></p> <ul style="list-style-type: none"> Notice Writing 	<p>3</p> <p>+</p>	<p>Creative Writing Skills and Grammar:</p> <p><u>Short Writing Tasks</u></p> <ul style="list-style-type: none"> Posters 	<p>3</p> <p>+</p>

	<p><u>Long Writing Tasks</u></p> <ul style="list-style-type: none"> • Business or Official Letters (Making enquiries, registering complaints, asking for or giving information, placing orders and sending replies) • Speech <p><u>Grammar</u></p> <ul style="list-style-type: none"> • Determiners • Tenses • Re-ordering of Sentences <p>{MCQs on Gap filling/ Transformation of Sentences}</p>	<p>5 + 4 = 12</p>	<p><u>Long Writing Tasks</u></p> <ul style="list-style-type: none"> • Official Letters: e.g., to school/college authorities (regarding admissions, school issues, requirements / suitability of courses) • Debate <p><u>Grammar</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Determiners <input type="checkbox"/> Tenses <input type="checkbox"/> Re-ordering of Sentences <p>{MCQs on Gap filling/ Transformation of Sentences}</p>	<p>5 + 4 = 12</p>
C	<p>Literature: Literary-prose/poetry extracts (seen- texts) comprehension and appreciation. (Two Extracts)</p> <p>Questions Based on Texts to assess comprehension and appreciation, analysis, inference, extrapolation</p> <p><u>Book-Hornbill:</u></p> <ul style="list-style-type: none"> • The Portrait of a Lady (<i>Prose</i>) • A Photograph (<i>Poem</i>) • "We're Not Afraid to Die... if We Can All Be Together" (<i>Prose</i>) • Discovering Tut: The Saga Continues • The Laburnum Top (<i>Poem</i>) • Landscape of the Soul (<i>Prose</i>) <p><u>Book-Snapshots:</u></p> <ul style="list-style-type: none"> • The Summer of the Beautiful White Horse (<i>Prose</i>) • The Address (<i>Prose</i>) • Ranga's Marriage (<i>Prose</i>) 	<p>9 Marks for Hornbill +6 Marks for Snapshots = 15 Marks</p>	<p>Literature: Questions based on extracts/texts to assess comprehension and appreciation, analysis, inference, extrapolation</p> <p><u>Book-Hornbill:</u></p> <ul style="list-style-type: none"> • The Voice of the Rain (<i>Poem</i>) • The Ailing Planet: The Green Movement's Role (<i>Prose</i>) • The Browning Version (<i>Play</i>) • Childhood (<i>Poem</i>) • Silk Road (<i>Prose</i>) <p><u>Book-Snapshots:</u></p> <ul style="list-style-type: none"> • Albert Einstein at School (<i>Prose</i>) • Mother's Day (<i>Play</i>) • Birth (<i>Prose</i>) 	<p>9 Marks for Hornbill +6 Marks for Snapshots = 15 Marks</p>
	TOTAL	40	TOTAL	40
	ASL	10	ASL	10

	GRAND TOTAL	40 + 10 = 50 MARKS	GRAND TOTAL	40 + 10 = 50 MARKS
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SYLLABUS FOR PERIODIC TEST 2

Hornbill

Prose

- Discovering Tut: The Saga Continues

Poetry

- The Laburnum Top

Snapshots

- The Address

WRITING SKILLS

Letter of Complaint, Letter of Enquiry

GRAMMAR

Determiners Tenses ,Re ordering of Sentences

READING COMPREHENSION

SYLLABUS FOR PERIODIC TEST 3

Hornbill:

Prose

- The Ailing Planet: The Green Movement's Role

Poetry

- The Voice of the Rain

Snapshots:

- Albert Einstein at School

WRITING SKILLS: Letter to the School/College Authorities, Debate

GRAMMAR:Determiners,Tenses, Re ordering of sentences

READING COMPREHENSION

TERM-1			
MONTH	NAME OF THE TOPIC	ACTIVITY	Learning outcomes
JULY	Chapter–1: Physical World Chapter–2: Units and Measurements and Elementary concepts of differentiation and integration for describing motion Chapter–2: Elementary concepts of differentiation and integration for describing motion	1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.	Learners will be able to understand Physics for the betterment of society Learners will be able to understand measurement along with basics of units. Learners will be able to understand importance of dimensional analysis
AUGUST	Chapter–3: Motion in a Straight Line Chapter–4: Motion in a Plane Chapter–5: Laws of Motion	2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.	Learners will be able to understand equations of motion in our daily life mathematical calculus analysis Learners will be able to understand motion and the Concept of force.
SEPTEMBER	Chapter–6: Work, Energy and Power Chapter–7: System of Particles and Rotational Motion	3. To determine radius of curvature of a given spherical surface by a spherometer.	Learners will be able to understand work done and Concept of mechanical forms energy. Learners will be able to understand Mechanical power along with its Practical
OCTOBER	Chapter–7: System of Particles and Rotational Motion Chapter–8: Gravitation	4. To determine the mass of two different objects using a beam balance. To find the weight of a given body using parallelogram law of vectors. 5. Using a simple pendulum, plot its $L-T^2$ graph and use it to find the effective length of second's pendulum.	Learners will be able to understand mass and centre of gravity of a body understand the Concept of Rotational force between two bodies and its
TERM-2			
NOVEMBER	Chapter–9: Mechanical Properties of Solids Chapter–10: Mechanical Properties of Fluids	1. To study the relationship between the temperature of a hot body and time by plotting a cooling curve	Learners will be able to understand types of Elastic moduli and Relation strain. Learners will be able to understand dynamics in real life Learners will be able to understand Concept of surface Tension and Surface able to relate it with a daily life.
DECEMBER	Chapter–11: Thermal Properties of Matter	2. To study the relation between frequency and length of a given wire under constant tension using sonometer.	Learners will be able to understand heat transfer.

JANUARY	Chapter–12: Thermodynamics Chapter–13: Kinetic Theory	3. To find the force constant of a helical spring by plotting a graph between load and extension.	Learners will be able to understand and second law of thermodynamics
FEBRUARY	Chapter–14: Oscillations Chapter–15 : waves	4. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.	Learners will be able to understand period of simple pendulum and spring Learners will be able to understand different type of waves.

Syllabus for P1:

Chapter–1: Physical World

Chapter–2: Units and Measurements and Elementary concepts of differentiation and integration for describing motion

Chapter–3: Motion in a Straight Line

Syllabus for P2:

Chapter–4: Motion in a Plane

Chapter–5: Laws of Motion

Chapter–6: Work, Energy and Power

Syllabus for Term 1:

complete syllabus of Term 1 (Chapter-1 to Chapter-8)

Syllabus for P3:

Chapter–9: Mechanical Properties of Solids

Chapter–10: Mechanical Properties of Fluids

Chapter–11: Thermal Properties of Matter

Syllabus for Annual Exam:

complete syllabus of Term 2 (Chapter-9 to Chapter-15)

CHEMISTRY

Term -1

Theory (35 Marks)

Month	Unit no./ Name of unit	Activity	Learning Outcomes
May	Unit 1- Some basic concepts of chemistry. Unit 2- Structure of atom.		Unit 1 –To be able to explain various laws of chemical combination and to perform the chemical calculations. Unit 2 –Knowledge of Quantum mechanical model of an atom and to

			be able to write the electronic configuration of elements.
July	Unit 3 - Classification of elements and periodicity in properties.		Unit 3 –Knowledge of Modern Periodic classification of elements and recognize the periodic trends
August	Unit 4- Chemical bonding and molecular structure.		Unit 4 –To be able to explain the formation of different types of bonds and bond structure of various molecules.
September	Unit 8- Redox reactions. Unit 9 – Hydrogen.	-To study the nature of various sample solution using pH paper Volumetric analysis (Titration-1)	Unit 8 –Knowledge of mechanism of redox reactions and balancing of chemical equations. Unit 9 –Knowledge of chemistry and applications of Dihydrogen,Hydrides,Water,Hydrogen peroxide and heavy water.
October	Unit 12- Organic Chemistry: some basic principles and techniques.	Volumetric Analysis (Titration 2)	Unit 12 –Knowledge of IUPAC Nomenclature,concept of organic reaction mechanism and influence of electronic displacements on structure and reactivity of organic compounds.
November	Overall revision	Preparation and correction of lab record -Overall revision	

Practicals (15 Marks)

S.no	Name of experiment	Month
1.	Content based experiment.	September
2.	Volumetric Analysis	September/October
3.	Preparation of class record.	November

Term-2

Theory (35 Marks)

Month	Unit no./ Name of Unit	Activity	Learning Outcomes
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December	Unit 5 -States of matter. Unit 6 -Chemical Thermodynamics.	Content Based experiment	Unit 5 –Knowledge of Gas laws ,behaviour of gases and properties of liquids in terms of intermolecular attractions. Unit 6 – Knowledge of Laws of Thermodynamics and concept of Entropy,Spontaneity and Free energy
January	Unit 7 -Equilibrium. Unit10- s- block elements.	Salt Analysis (Group-0,1,2)	Unit 7 –Knowledge of characteristics of equilibria involved in physical and chemical processes and theories related to acids and bases. Unit 10 –Knowledge of general characteristics and periodic trends of group 1 and 2 elements.
February	Unit11- p- block elements Unit 13- Hydrocarbons	Salt Analysis (group-3,4,5)	Unit 11— Knowledge of general characteristics and periodic trends of group 13 and 14 elements. Unit 13 –To learn about various methods of preparation of Hydrocarbons and to be able to distinguish between alkanes, alkenes, alkynes and

			aromatic hydrocarbons on the basis of physical and chemical properties.
March	Overall revision and second term examination.	Salt Analysis(group-6) -Preparation and correction of lab record and investigatory project. -Overall revision	

Practicals (15 Marks)

S.no.	Name of the experiment	Activity
1	Content based experiment.	December
2.	Salt analysis.	January/ february/March
3.	Preparation of investigatory project.	March

Syllabus for P-1	Unit 1,2,3
Syllabus for P-2	Unit 4
Syllabus for first term examination	Unit 1,2,3,4,8,9,12
Syllabus for P-3	Unit 5
Syllabus for final examination	Unit 5,6,7,10,11,13

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

Class- 11th

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

Class 11.

1. Classification of hydrocarbons.
2. Different types of Organic reactions.

BIOLOGY

TERM-I				
S.No.	Month	Syllabus coverage	Practical /Activity	Learning Outcome
1.	May	Unit 1. Diversity in living organisms Ch.1. The Living world	To Study the Parts of compound microscope, its proper use and maintenance.	Students will recognise and appreciate diversity present in biosphere. Students will also be able to identify the defining properties of living organisms
2	June	Ch.2. Biological classification		Students will be able to compare Artificial, Natural and Phylogenetic Classification .
3	July	Ch.3.Plant Kingdom	Study of Plant specimens	Students will Identify different observable features of plants in their immediate surroundings.
		Ch4 Animal Kingdom	Study of Animal Specimens	Students will find the ecological and economic importance of diverse animals on earth. They will also verify the characteristics present in animals.
4	August	Unit 2 .Structural organisation in plants and animals Ch.5.Morphology of flowering Plants	Study and describe a locally available common flowering plant, from any one family: Solanaceae or Liliaceae (Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams).	Students will identify the relationship with and among the different Divisions and Classes . of Plant Kingdom
5	September	Ch7. Anatomy of animals Animal tissues		Students will understand Various types of animal tissues their structure, anatomy and their functions .
6	October	Unit 3 Cell : structure and function Ch.8 cell	Study of osmosis by Potato osmometer.	Students will understand detail structure of cell and its various cell organelle, the roles of various cell organelle.
7	November	Ch.9. Biomolecules		Students will be able to relate Biology with daily life eg. Structure and formation of

				various biomolecules with the eating habits and Health .
TERM-II				
8	December	Ch.10. cell division	B.5 Mitosis in onion root tip cells and animal cells (grasshopper) from permanent slides.	Students will be able to know Various phases of cell cycle, phases of cell division, mitosis and meiosis
		Unit 4. Plant Physiology Ch 13. Photosynthesis in plants	Separation of plant pigments through paper chromatography	Students will comprehend The changing of light energy into chemical energy .
9	January	Ch.14.Respiration	Study of distribution of stomata in the upper and lower surfaces of leaves	Students will understand the difference in aerobic and anaerobic pathway of oxidation of food.
		Ch 15. Plant growth and development	Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.	Students will relate the Phytohormones with growth and development in plants .
		Unit 5 .Animal Physiology Ch.17.Breathing and exchange of gases		Students recognize the different air volumes in our body besides normal breathing. They will also understand the physiology of respiration .
		Ch .18. Body Fluid and circulation	To test glucose , in the given sample of urine.	Students will be able to explain the importance of double circulation in Humans. Composition and function of Blood will be clear.
10	February	Ch 19 Excretion	To test albumin in the given sample of urine.	Students will find the importance of kidneys and osmoregulation in our body .
		Ch. 20 Locomotion and movement	Tissues and diversity in shape and size of animal cells (squamous epithelium, smooth, skeletal and cardiac muscle fibers and mammalian blood smear) through temporary/permanent slides.	Students will generalize the muscle structure and its functioning
		Ch 21. Neural control and coordination		Students will interpret the nerve impulse conduction , functioning of brain and spinal cord.
		Ch 22. Chemical control and Regulation		Relate process and phenomenon with cause ,eg. Hypo and Hypersecretion of Hormone causes a particular disease.

Split of syllabus exam wise

Term I

Syllabus For P1-

Unit 1 Diversity in living organisms ch 1,2,3,4

Syllabus for P2

Unit 2 .Structural organisation in plants and animals ch 5,7

Syllabus for Term I

Unit 1- ch 1,2,3,4

Unit 2 ch 5,7

Unit 3 –Cytology 8, 9

Term II

Syllabus for P3-

Unit 3 ch 10

Unit 4 Plant Physiology ch – 13,14,15

Syllabus for II Term -

Unit 3 –Cytology ch 10

Unit 4 Plant Physiology ch 13,14 ,15

Unit 5–Animal Physiology -ch 17, 18,19,20,21 22

Month wise/Term wise Bifurcation

MONTH	CHAPTER NAME	LEARNING OUTCOME
AUGUST 2021	COMPLEX NUMBERS & QUADRATIC EQUATIONS SETS RELATIONS & FUNCTIONS	Learn the concept of an imaginary number and shall be able to solve the Quadratic equations having un real roots. Learn the representation of Sets and algebra of sets. Explain the Definition of relation, example pertaining to relations in the real number system.
SEPTEMBER 2021	RELATIONS & FUNCTIONS (cont.) Straight Lines	Learn the pictorial representation of sets and domain, co-domain and range of function. Recall two dimensional geometry slope of a line. They will also learn the various forms of equations of line.
OCTOBER 2021	STATISTICS LIMITS	Learn to measure dispersions, mean deviation, variance and standard deviation of ungrouped/grouped data. Learn the concept of Limits of various functions such as polynomial, trigonometric, exponential, logarithmic functions.
NOVEMBER 2021	REVISION	
DECEMBER 2021	TERM END EXAMS LINEAR INEQUALITIES	Able to solve linear inequalities algebraically and graphically.

JANUARY2022	PERMUTATION AND COMBINATIONS Conic Section	Learn the fundamental principle of counting and the application of formula. Know the sections of the cone and their standard equations and properties of conic section.
FEBRUARY2022	Introduction of 3D Geometry Derivatives	Learn the concept of three dimension geometry, distance between two points and section formula. Understand derivative as rate of change of a quantity with respect to the other quantity.
MARCH2022	Probability	Understand the concept of probability of and/or events, exhaustive events, mutually exclusive events etc.

Name of the Examination	Chapter Name
PeriodicTest2	<ul style="list-style-type: none"> • SETS • RELATION and FUNCTIONS • COMPLEX NUMBERS and QUADRATIC EQUATIONS
Term end Exam/ Half yearly exam	<ul style="list-style-type: none"> • SETS • RELATION and FUNCTIONS • COMPLEX NUMBERS and QUADRATIC EQUATIONS • SEQUENCE AND SERIES • STRAIGHT LINES • LIMITS • STATISTICS
Periodic Test3	<ul style="list-style-type: none"> • Linear Inequalities • Permutation and combination • Conic Section
Yearly Exam	<ul style="list-style-type: none"> • Trigonometric functions • Linear Inequalities • Permutation and combination • Conic Section • Introduction to 3-D geometry • Derivatives • Probability

OPTIONAL

A. PSYCHOLOGY

Month	Name of the Topic	Activity	Learning Outcome
May/July	Ch – 1. Introduction to Psychology	Activity of Misconceptions of Psychology	Ch-1. Interest in the new subject is generated and the basic content of the discipline is known
August	Ch-2 Methods in Psychology <u>Practical Project work</u> to be given	Activity on Survey Method	Ch-2. The challenging subject content requires various types of methods to study it. These methods will become familiar
September	Ch – 3. Biological and Cultural Basis of Behaviour <u>Experiment No. 1 Span of attention:</u> (If situation is still grim then Psychometric test 1 can be done):	Activity on acculturation	Ch-3. Psychology being a hybrid science , is influenced by biological as well as socio cultural influences. A brief introduction to Physical and social Psychology will be obtained Students will learn how perception goes beyond sensation. Various factors influencing sensation perception and illusion will be clear.
October	Ch4. Human Development .	Activity on Different developmental stages of life	Ch-4. Human development follows a definite pattern. Each stage of life has special developmental tasks as well as challenges. Each stage right from prenatal to old age will be understood.

November	Ch – 5. Sensory and Perceptual	PTI on Visual Illusions, Attention Span	Ch-5. Students will learn how perception goes beyond sensation. Various factors influencing sensation perception and illusion will be clear.
December	Ch – 6. Learning <u>Experiment No.2 transfer of training</u> i.e. experiment 2 for practicals	Activity on reinforcements used in daily life Activity on creativity	Ch-6. The concept of learning , various fundamental theories influencing it will be understood. Various determinants of learning will be grasped. Students will be able to conduct, interpret and report the two experiments
January	Ch-7. Memory	Memory Reconstruction activity, Anxiety Test	Ch-7. Students will learn about the various factors that influence our memory processes as well as forgetting
February	Psychometric Test/Experiments : Other deleted but relevant topics to be discussed. Revision for exams	Conduction and Interpretation of test Situational case studies to understand emotion management	Students will get a first hand experience of how a Psychometric test functions along with important topics from thinking and emotions chapters.

Syllabus for P1	Chapter No. 1,2
Syllabus for Half yearly Examination	Chapter Nos. 1 , 2 , 3 + one project for practical
Syllabus for P2	Chapter Nos. 2 , 3
Syllabus for P3	Chapter Nos 4,5
Syllabus for Annual Examination	Complete Syllabus (,4,5,6,7)+ One experiment for practical

**COURSE STRUCTURE
(TERM WISE)
CLASS XI (2021-2022)**

Units	Topics	No. of periods	Marks
TERM 1			
I	What is Psychology?	18	10
II	Methods of Enquiry in Psychology	20	13
III	The Bases of Human Behavior	22	12
	Total	60	35
TERM 2			
IV	Human Development	16	9
V	Sensory, Attentional and Perceptual Processes	12	8
VI	Learning	17	10
VII	Human Memory	15	8
	Total	60	35
	Total	120	70

PRACTICAL – TERM 1

PRACTICAL (PROJECT)	15 MARKS
The students shall be required to undertake one project . The project would involve the use of different methods of enquiry and related skills.	
• Project file:	06 Marks
• Presentation of Project :	06 Marks
• Viva Voce (Project): ..	03 Marks

PRACTICAL –TERM 2

Practical (Experiment)	15 marks
The students shall be required to conduct one experiment related to the topics covered in the course (e.g. Human development, Learning, Memory, Perception and Attention).	
Practical Examination	
● Practical (Experiment) file	05 Marks
● Viva Voce (Experiment)	03 Marks
● Conduct of one experiment and report writing	07 Marks*
*(03 Marks for conduct of experiment and 04 Marks for report writing)	

B. INFORMATICS PRACTICES

Month	Name of the Topics	Activity	Learning Outcome
May	<p>Unit 1 : Introduction to Computer System : Hardware Components, : Software - purpose and types</p> <p>Unit 5: Introduction to the Emerging Trends Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.</p>	<p>Presentation to identify hardware and software components of a computer system.</p> <p>A movie to be prepared discussing various Emerging trends in the fields of Information Technology and their applications.</p>	<p>Ability to identify the functionality of various hardware components of Computer System and category of various software available and their usage.</p> <p>Ability to identify the Emerging trends in the fields of Information Technology and their applications.</p>
July	<p>Unit 2: Introduction to Python Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments, input and output statements, data type conversion, debugging, control statements: if-else, for loop.</p>	<p>Demonstration of Python IDLE interface and simple usage.</p> <p>Python applications to do simple calculations like perimeter, area, interest, etc.</p> <p>Python applications to do conditional and iterative problems.</p>	<p>Ability to develop application using simple python.</p> <p>Ability to develop application using conditional statement.</p> <p>Ability to use, develop & debug programs independently.</p>

August	<p>Periodic Test 1</p> <p>Unit 2: Introduction to Python Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions. Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()</p>	Python applications to do use lists and dictionary.	Ability to use, develop & debug programs independently.
September	Periodic Test 2	Revision	Recall topics done. apply knowledge & understanding to solve given questions.
October	<p>Unit 4 : Database concepts and the Structured Query Language: (Database concepts and Relational data model: Concept of a database, relations, attributes and tuples, keys) Introduction to SQL, data types in MySQL.</p>	Given a table, identify its various components. Creation of students' database.	Ability to identify various components of a DBMS. Ability to create database, store data using MySQL.
November	<p>Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute).</p> <p>Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause</p> <p>Data Manipulation Commands: INSERT, UPDATE, DELETE.</p>	Application of various SQL commands on students' database.	Ability to manipulate data stored in databases.
December	<p>EXTRA PORTION : Data Handling using NumPy</p> <p>Project development.</p>	Python applications to create and manipulate arrays.	Ability to represent and use data using arrays.
January	<p>Periodic Test 3</p> <p>Project development.</p>	Development of Python modules and integration to develop a small project based on Python.	Ability to develop a project.

	Annual Examination (Practical & Theory)		
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Syllabus for P1	Chapter 1
Syllabus for P2	Chapter 3
Syllabus for Term 1	Chapter 1,3,4
Syllabus for P3	Chapter 2, 7
Syllabus for Annual Exam	Chapter 2, 7, 8

C. PHYSICAL EDUCATION

Month	Name of the Topics	Activity	Learning Outcome
TERM-I			
MAY	Unit 1: Changing Trends & Career in Physical Education • Meaning & definition of Physical Education • Aims & Objectives of Physical Education • Career Options in Physical Education. • Khelo-India Program	Explore careers in sports and Phy.Edu. Khelo India Program	Knowledge of careers Awareness about Physical Education
JULY	Unit 2: Olympic Value Education • Olympics • Olympic Symbols, Ideals, Objectives & Values of Olympism • International Olympic Committee • Indian Olympic Association Unit3: Physical Fitness, Wellness & Lifestyle • Meaning & Importance of Physical Fitness, Wellness & Lifestyle • Components of physical fitness and Wellness • Components of Health related fitness	Explore about Olympics Implement Physical fitness and wellness in one's own life	Knowledge about Olympics Physical Fitness and wellness components

AUGUST	<p>Unit7:Test, Measurement & Evaluation • Define Test, Measurement & Evaluation • Importance of Test, Measurement & Evaluation In Sports • Calculation of BMI & Waist - Hip Ratio. • Measurement of health related fitness.</p> <p>PERIODIC TEST-I</p>	Calculation of BMI, Hip Ratio of family members	Knowledge about different evaluation tests to know about one's fitness
SEPTEMBER	<p>Unit8:Fundamentals of Anatomy, Physiology & Kinesiology in Sports • Definition and Importance of Anatomy, Physiology & Kinesiology</p> <p>Periodic TEST-2</p>	Application of centre of gravity in sports	Knowledge about different organ systems in human body Gravity in sports
OCTOBER	<p>• Function of Skeleton System, Classification of Bones & Types of Joints• Function & Structure of Respiratory System and Circulatory System • Equilibrium – Dynamic & Static And Centre of Gravity and its application in sports</p>	Application of centre of gravity in sports	Knowledge about different organ systems in human body Gravity in sports
	Term-II		
NOV.	<p>Unit 4: Physical Education & Sports for CWSN (Children With Special Needs- Divyang)</p> <ul style="list-style-type: none"> • Aims & objectives of Adaptive Physical Education • Organization promoting Adaptive Sports (Special Olympics Bharat; Paralympics; Deaflympics) • Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & special Educator) 	Organisation of activities for CSWN	Knowledge about CSWN and the therapies needed for them to make them part of society. Sports events associated with CSWN Counselling of Divyangs

DECEMBER	<p>Unit 5: Yoga • Meaning & Importance of Yoga • Elements of Yoga • Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas • Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana&Shashankasana, Naukasana, Vrikshasana (Tree pose), Garudasana (Eagle pose))</p> <p>Project Discussion Practical Exam*</p>	<p>Project File based on sport/game of choice</p> <p>Questionnaire</p>	<p>Knowledge about one specific game/sport</p> <p>Recall.</p>
JANUARY	<p>Unit6:Physical Activity & Leadership Training • Leadership Qualities & Role of a Leader • Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Paragliding) • Safety measures to prevent sports injuries</p>	<p>Use of various yogasnas for fitness and well-being</p> <p>Motivated the students to do Rock climbing and mountaineering</p>	<p>Knowledge of importance of yoga and asanas in today's scenario.</p> <p>Knowledge about the role of leader, adventure sports and the safety measures to be taken to prevent sports injury.</p>
Feb.	<p>Unit9: Psychology & Sports</p> <ul style="list-style-type: none"> • Definition & Importance of Psychology in Phy. Edu. & Sports • Define & Differentiate Between Growth & Development. • Adolescent Problems & Their Management <p>Unit10: Training and Doping in Sports • Meaning & Concept of Sports Training • Principles of Sports Training • Concept & classification of doping • Prohibited Substances & their side effects</p> <p>Project Discussion for term -2</p> <p>PERIODIC TEST-3</p>	<p>Discussion on general problems faced by teenagers</p> <p>Project File Based on physical fitness activity/yoga</p>	<p>Knowledge of Psychology in sports. Adolescent problems</p> <p>Knowledge about Training in sports.</p> <p>Knowledge about doping and its side effects</p> <p>Learnt about physical activity/yoga for fitness</p>

	Revision Term-II Syllabus Practical Exam*	Questionnaires	Recall
March/April*	Term-II Examination		

Syllabus for PT1	CHAPTER 1,2,3
Syllabus for PT2	CHAPTER 7
Syllabus for Term 1	CHAPTERS – 1,2,3,7,8
Syllabus for PT3	Chapter 4,5,6
Syllabus for Term-II	CHAPTERS –4,5,6,9,10

D.PAINTING

Month	Name of the Topic	Activity	Learning Outcome
May, June and July	An introduction to Art Fundamentals of Art	Identify the Colours Make the Colour Wheel	A Theory (History of Indian Art) The objective of including the History of Indian Art for the students is to familiarize them with the 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 enjoy the beauty of nature and life. The students will also have an opportunity to observe and study the
August	Pre-Historic Rock Paintings and Art of Indus Valley (2500 B.C TO 1500B.C)	Identify the Picture of different Art Styles	
September	Buddhist, Jain, and Hindu Art (3 rd Century B.C to 8 th Century A.D)	Develop PPT	

October	Introduction to Ajanta Study of Paintings and Sculptures of Ajanta Caves	To document difference between Painting & Sculpture	evolution of its mutations and synthesis with other style and the rise of an altogether new style. The students should be made aware of art as a human experience. The teachers should be able to expose them to the wide range of artistic impressions, the media and the tools used. The history of Indian art is a long one. Hence the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation. Examples included in the course of study are selected because of their aesthetic qualities and are intended purely as guidelines.
November	Temple Sculpture, Bronzes and Artistic Aspects of Indo-Islamic Architecture)	Develop Charts	
December	Study of Temple Sculpture (7 th , 8 th and 9 th Century A.D)	Identify the Picture of Different Art Styles	
January	Study of Temple Sculpture (10 th -13 th Century A.D) Indian Bronzes	Develop PPT	
February	Artistic Aspects of Indo-Islamic Architecture	Identify the Picture of different Art Styles	

Term Wise Syllabus Painting Class 11

Syllabus for P1:	An introduction to Art Pre-Historic Rock Paintings And Art of Indus Valley (2500 B.C to 1500 B.C)
Syllabus for P2:	Buddhist, Jain and Hindu Art (3 rd Century B.C to 8 th Century A.D) Introduction to Ajanta, Study of Paintings and Sculptures of Ajanta Caves
Syllabus for Half Yearly:	Pre-Historic Rock Paintings and Art of Indus Valley (2500 B.C to 1500 A.D) Buddhist, Jain, Hindu Art (3 rd Century B.C to 8 th Century A.D) Introduction to Ajanta, Study of Paintings and Sculptures of Ajanta Caves, Temple Sculpture, Bronzes and Artistic Aspects of Indo-Islamic Architecture
Syllabus for P3:	Study of Temple Sculpture (7 th to 10 th -13 th Century A.D)
Syllabus for Annual Exam	Complete Syllabus

Subject: FINE ARTS-PAINTING (Practical) Class 11th

Month	Name of the Topic
July	Nature and Object Study
August	Nature and Object Study
September	Nature and Object Study
October	Painting-Composition
November	Painting-Composition
December	Painting-Composition
January	Portfolio Assessment
February	Portfolio Assessment

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

Total: 30 Marks

Unit wise Weightage

Term	Units		Marks
	History of Indian Art		
I	1	Pre-Historic rock paintings and art of Indus Valley	8
	2	Buddhist, Jain and Hindu Art	7
II	3	Temple Sculptures	8
	4	Bronzes and Artistic aspects of Indo-Islamic architecture	7
			30

CLASS–XI (2021-22) (PRACTICAL)

Term I

35 Marks

Unit	Content	Marks
	Painting Composition	25 Marks
(i)	Simple exercises of basic design in variation of geometric and rhythmic shapes in geometrical and decorative designs and colours to understand designs as organised visual arrangements.	10 Marks
(ii)	Sketches from life and nature	15 Marks
	Portfolio Assessment	10 Marks
a)	Record of the Term, performance from sketch to finished product	5 Marks
b)	One selected work of paintings composition done during the Term	3 Marks
c)	Two selected works of paintings done during the Term	2 Marks

Term II

Unit	Nature and Object Study	35 Marks
	Study of two or three natural and geometric forms in pencil with light and shade from a fixed point of view. Natural forms like plants, vegetables, fruits and flowers, etc., are to be used. Geometrical forms of objects like cubes, cones, prisms, cylinders and spheres should be used.	25 Marks
	Portfolio Assessment	10 Marks

(a) Record of the Term, performance from sketch to finished product	5 Marks
(b) Three selected nature and object study exercises in any media done during session including the minimum of two still life exercises.	5 Marks

E.HOME SCIENCE

Month	Name of the Topic	Activity	Learning outcome
July	1) Introduction – HEFS: evolution to the discipline and its Relevance to Quality of Life 2) UNIT-1 Understanding oneself Adolescence Chapter-2	Understanding oneself with reference to peers	<ul style="list-style-type: none"> They will know about the career opportunities of Home Science. The way to have healthy relationship within the family members and peer groups
August	Chapter -4,5 Chapter-4: Management of Resources Chapter-5: Fabrics Around us	Evaluation of adequacy of nutrition	<ul style="list-style-type: none"> The meaning and need for management To explain the concept of yarn and fabric making.
September	Revision		
October	Chapter-3,6,8 Chapter-3: Food , Nutrition , Health and Fitness Chapter-6: Media and Communication Technology Chapter-8: Living and Working in a Global Society	List and discuss 5 messages from print which have influenced own self	<ul style="list-style-type: none"> Understand the functions of food, nutrition, food preservation and health. Develop high values and ethics.
November	Unit-2 Understanding Family, Community and Society Chapter-10,11 Chapter-10: Concern and needs in diverse context Chapter-11: Survival Growth and Development	Observation of any 2 children of different families in the neighborhood	<ul style="list-style-type: none"> Equipped to face the challenges of the real life situations
December	Unit-3 Childhood Chapter-12,14,15 Chapter-12: Nutrition, Health and Well Being Chapter-15: health and wellness Chapter-14: Our Apparel	Documentation of a traditional textile art	<ul style="list-style-type: none"> Students will be able to describe the steps to promote good health and wellness.

			<ul style="list-style-type: none"> Students will learn about the importance of Textile Finishing.
January	Chapter-16,17 Chapter-16: Financial Management and Planning Chapter-17 : Care and Maintenance of Fabric	Study of labels on Food Fabric and apparels	<ul style="list-style-type: none"> They will understand the importance of saving and investment. They will learn the care of different fabric

Term I (Course structure-Theory)

Unit No.	Units	Marks
1.	Introduction to Home Science	02
2.	Understanding Oneself-Adolescence	18
3.	Understanding Family, Community and Society	15
	Total	35

Term II (Course Structure-Theory)

Unit No.	Units	Marks
4.	Childhood	17
5.	Adulthood	18
	Total	35

Examination wise Syllabus division

S.No.	Examination	Syllabus
1.	P-1	1.Introduction to Home Science 2.Understanding oneself-Adolescence
2.	P-2	1. Food Nutrition Health and Fitness 2. Management of Resources
3.	Half Yearly(Term-I)	1.Introduction to Home Science 2.Understanding oneself-Adolescence 3. Understanding Family, Community and Society 4.Food Nutrition Health and Fitness 5.Management of resources
4.	P-3	1.Adulthood
5.	Term-II	1.Adulthood 2. Childhood

Practicals

- (1) Prepare nutritious snacks for Adolescents,
- (2) To make presentation on Indian Traditional craft.
- (3) To prepare an article on Mandana.

Art Integrated project (AIL) with paired state Assam.

Power Point Presentation on

- (1) Sericulture Technique and Institutes of Assam.
- (2) Costume of Assam

F. Economics

MONTH	MICRO-ECO	Learning Outcome/Activities
May / June	Section B: Unit 1: Introduction Ch-1. Economics and economy Ch-2. Central Problems of an Economy	MCQ's- Simple Complex Case study
July	Section A: Unit 1: Introduction Ch-1. Statistics in economics Unit 2: Collection, Organisation & Presentation of data Ch-2. Collection of data	MCQ's- Simple Complex Case study
August	Section B: Unit 2: Consumer's equilibrium & demand Ch-3, 4 Consumer Equilibrium (utility analysis & Indifference Curve Analysis) August: Section A: Unit 2: Ch-3. Census & Sample method Ch-4. Organisation of data September Sec A: Unit 2: Ch-5. Tabular presentation Project (part-1)	MCQ's- Simple Complex Case study
September	Section -B Unit 5: Ch-5 Theory of Demand Ch-6 Price Elasticity of Demand	MCQ's- Simple Complex Case study

	<p>Unit 6: Production Function & Returns to a factor Ch-7 Production Function & Returns to a factor (To be continued)</p> <p>Section A:</p> <p>Unit 2: Ch-6. Bar & Pie diagrams</p> <p>Unit 2: Ch-7. Histogram, Polygon, Ogive Ch-8. Line & Time series graphs</p> <p>Unit 3: Statistical tools and interpretation Ch- 9 : Mean & Median Ch-10: Mode</p>	
<p>OCTOBER</p>	<p>Section B:</p> <p>Unit 6: CH-7-Continues</p>	<p>Focus on Practical examples, formulae & equations from the point of view of objective type questions. Subjective Detailed Long question answers shall be undertaken.</p>

<p>NOVEMBER</p>	<p>Section B:</p> <p>Unit 6:</p> <p>Ch-8 Cost concepts</p> <p>Ch-9 Revenue concepts</p> <p>Ch-10 Theory of Supply</p> <p>Unit 7: Forms of market & Price determination under Perfect competition</p> <p>Ch-11Forms of Market</p> <p>Section A:</p> <p>Unit 3:</p> <p>Chapter 11: Measures of dispersion—To be continued</p> <p>Project- part-2</p>	<p>Focus on Practical examples, formulae & equations from the point of view of objective type questions.</p> <p>Subjective</p> <p>Detailed Long question answers shall be undertaken.</p>
<p>DECEMBER</p>	<p>Section B:</p> <p>Unit -7</p> <p>Ch-11 Forms of Market(contd...)</p> <p>CH-12 Market Equilibrium of Perfect Competition..(To be continued)</p> <p>Section A:</p> <p>Unit 3:</p> <p>Ch-11. Measures of dispersion —Continues...</p> <p>Ch-12. Correlation</p>	<p>Focus on Practical examples, formulae & equations from the point of view of objective type questions.</p> <p>Subjective</p> <p>Detailed Long question answers shall be undertaken.</p>

JANUARY	Unit -7 Ch-12 Continues... Section A: Unit 3: Ch-13. Index Numbers(To be continued..)	Focus on Practical examples, formulae & equations from the point of view of objective type questions. Subjective Detailed Long question answers shall be undertaken.
February	Chapter-13. Continues..Revision of full syllabus	

TERM-1

Periodic test-1

Statistics (Section A) - Unit 1: Introduction

Chapter 1- Concept of Economics & Significance of Statistics in Economics

Unit-2 Collection, Organisation and Presentation of data

Chapter 2- Collection of Data

Micro Economics (Section B)- Unit 4: Introduction

Chapter 1- Economics & Economy

Chapter 2- Central Problems of an Economy

Periodic test-2

Section A- Unit 2: Collection, Organisation & Presentation of data

Chapter-4: Organisation of data

Section B- Unit 5: Consumer's Equilibrium & Demand

Chapter-3: Consumer's Equilibrium-Utility analysis

Chapter-4: Consumer's Equilibrium- Indifference curve analysis

Half yearly

Section A: Unit-1; Unit-2 & Unit-3(ch-9&10)

Section B: Unit-4 & Unit -5

TERM-2

Periodic test-3

Section A: Unit 3: Statistical Tools & Interpretation

Chapter-11: Measures of dispersion

Section B: Unit 6: Production behaviour & Supply

Chapter-7: Production function

Final-

Section-A: Unit 3-Measures of dispersion, Correlation and Index numbers

Section B: Unit-6 & Unit-7

ECONOMICS
TERM-WISE CURRICULUM

Units	TERM 1 - MCQ BASED QUESTION PAPER	Marks
	Theory: 40 Marks Time: 90 Minutes	
Part A	Statistics for Economics	
Unit 1	Introduction	4
Unit 2	Collection, Organisation and Presentation of Data	9
Unit 3	Statistical Tools and Interpretation – Arithmetic Mean, Median and Mode	10
	Sub Total	23
Part B	Introductory Microeconomics	
Unit 4	Introduction	4
Unit 5	Consumer's Equilibrium and Demand	13
	Sub Total	17
	Total	40 marks
Part C	Project Work (Part 1): 10 Marks	

TERM-I PROJECT WORK (Part 1): 10Marks

Action plan:

Month	Periodic Work	Assessment Rubrics	Marks
1-3 July- September	Instructions about Project Guidelines, Background reading Discussions on Theme and Selection of the Final Topic, Initiation/ Synopsis	Introduction, Statement of Purpose/Need and Objective of the Study, Hypothesis/Research Question, Review of Literature, Presentation of Evidence, Key Words, Methodology, Questionnaire, Data Collection.	5
4-5 October- November	Planning and organisation: forming an action plan, feasibility or baseline study, Updating/modifying the action plan, Data Collection	Significance and relevance of the topic; challenges encountered while conducting the research.	5
October- November	Mid-term Assessment by internal examiner		10

Units	TERM2- SUBJECTIVE QUESTION PAPER Theory: 40 Marks Time: 2 Hours	Marks
Part A	Statistics for Economics	
Unit 3	Statistical Tools and Interpretation – Measures of Dispersion, Correlation, Index Number	17
	Sub	17
	Total	
Part B	Introductory Microeconomics	
Unit 6	Producer Behaviour and Supply	13
Unit 7	Forms of Market and Price Determination under perfect competition with simple applications	10
	Sub Total	23
	Total	40 marks
Part C	Project Work (Part 2): 10 Marks	

TERM- II - PROJECT WORK (Part 2): 10 Marks

Action plan:

Month	Periodic Work	Assessment Rubrics	Marks
6-7 December- January	Content/data analysis and interpretation. Conclusion, Limitations, Suggestions, Bibliography, Annexures and Overall Presentation of the project.	Content analysis and its relevance in the current scenario. Conclusion, Limitations, Bibliography, Annexures and Overall Presentation.	5
8 January/ February	Final Assessment and VIVA	External/ Internal Viva based on the project	5
		TOTAL	10

G. Applied Maths

Month Wise Distribution

MONTHS	NAME OF CHAPTER	LEARNING OUTCOMES Students will be able to :
May 2021	SET	Apply the concept of Venn Diagram to understand the relationship between sets. Perform operations on sets to solve practical problems.

	<p>RELATIONS</p> <p>SEQUENCE AND SERIES</p>	<p>Explain the Definition of relation, example pertaining to relations in the real number system.</p> <p>Determine general term of series in AP, Calculate sum of n terms of series, find AM of two numbers.</p>
July 2021	<p>SEQUENCE AND SERIES (cont.)</p> <p>FUNCTION</p>	<p>Determine general term of series in GP, Calculate sum of n terms. find GM of two positive numbers.</p> <p>Define function. Solve problems based on domain, range and Co – domain. Representation of function graphically</p>
August 2021	<p>NUMBERS AND QUATIFICATION</p> <p>NUMERICAL APPLICATION</p>	<p>Express binary number into decimal number and vice versa. Relate indices and logarithm / antilogarithm. Solve problems based on indices and logarithm and antilogarithm</p> <p>Determine/ Calculate/ Solve problems on Average, Clock, Calendar, Time Work and Distance, Mensuration , Seating arrangement.</p>
September 2021	<p>DESCRIPTIVE STATISTICS</p>	<p>Understand, Differentiate, Calculate Range, Quartile deviation, Mean deviation and standard deviation.</p> <p>Calculate coefficient of Skewness and Kurtosis, interpret Percentile and Quartile rank of scores, correlation in a given data set.</p>
October 2021	<p>MATHEMATICAL REASONING</p> <p>LOGICAL REASONING</p>	<p>Identify mathematically acceptable statement. Express the implication of the compound statement,</p> <p>Solve logical reasoning involving odd man out, syllogism, blood relation and coding decoding.</p>
November 2021	<p>PERMUTATION AND COMBINATION</p> <p>CALCULUS</p>	<p>Apply the concept of permutation, circular permutation and combination with repetitions to solve problems.</p> <p>Define limit and continuity of a function. Solve problems based on the algebra of limits.</p> <p>Find the derivate of the functions and function of a function.</p>

<p>December 2021</p>	<p>PROBABILITY</p> <p>(i) Event</p> <p>(ii) Conditional Probability</p> <p>(iii) Bayes' Theorem</p> <p>COORDINATE GEOMETRY</p> <p>(i) STRAIGHT LINE</p>	<p>Find sample space, identify between exhaustive events and exclusive events.</p> <p>Solve problems based on conditional probability.</p> <p>Solved problems on Bayes Theorem.</p> <p>Find Slope of line, Calculate angle between two lines. Use various forms of equation of line.</p> <p>Calculate distance between two parallel lines.</p>
<p>January 2022</p>	<p>COORDINATE GEOMETRY(cont.)</p> <p>(ii) CIRCLE</p> <p>(iii) PARABOLA</p> <p>FINANCIAL MATHEMATICS</p> <p>(i) SIMPLE AND COMPOUND INTEREST</p>	<p>Solve problems based on applications of circle.</p> <p>Use Application in parabolic reflector, beam supported by wires at the end of the support, girder of a railways bridge, etc.</p> <p>Interpret and Calculate simple interest and compound interest</p>
<p>February 2022</p>	<p>FINANCIAL MATHEMATICS (Conti.)</p> <p>(ii) ANNUITY</p> <p>(iii) TAXATION</p> <p>(iv) BILLS</p>	<p>Apply the concept of annuity in real life situations.</p> <p>Explain rules under State Goods and Service Tax (SGST) Central Goods and Service Tax (CGST) and Union Territory Goods and Service Tax (UTGST).</p> <p>To interpret and analyze electricity bills, water bills and other supply bills.</p>

PT - 1	<ol style="list-style-type: none"> 1. Sets, 2. Relation 3. Sequence and Series
PT – 2	<ol style="list-style-type: none"> 1. Function 2. Binary Number 3. Indices , Logarithm and Antilogarithm
Half Yearly	<ol style="list-style-type: none"> 1. Number Qualification : Binary Number , Indices, Logarithm and antilogarithm 2. Numerical Application : Average, Clock, Calendar, Time and work, Distance, Mensuration, Seating Arrangement 3. Algebra : Sets, Relation, Sequence and Series 4. Reasoning : Mathematical Reasoning, Logical Reasoning 5. Descriptive Statistics 6. Function
PT – 3	<ol style="list-style-type: none"> 1. Permutation and Combination 2. Probability 3. Calculus: Limits, Continuity and Differentiation.
Annual Exam	<ol style="list-style-type: none"> 1. Permutation and Combination 2. Calculus: Limits, Continuity and Differentiation. 3. Probability 4. Financial Mathematics : Interest, Annuities, Tax, Bills 5. Coordinate Geometry : Straight Line, Circle , Parabola

INTERNAL ASSESSMENT

Term	Area and Weight age	Assessment Area	Marks Allocated
Term 1	Project	Project work and record	5
		Viva of the project	5
		TOTAL	10

<u>Term</u>	<u>Area and Weight age</u>	<u>Assessment Area</u>	<u>Marks Allocated</u>
Term 2	Practical	Performance of practical and record	5

		Term end test of any one practical and Viva	5
		TOTAL	10