D.A.V.PUBLIC SCHOOL PUNE
SUB:-PHYSICS (2023-24)

STD-XI

Month	Unit/Content	Expected Learning Outcome	Suggested Activities	Values/Skills
April (14 Days)	**Unit 2. Kinematics** **Chapter 3: Motion in a straight line.** **Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, Uniform and Non- uniform motion, Instantaneous velocity, Relations for Uniformly accelerated motion (graphical treatment**	• **Student will understand use of equations of motion in day to day life.** • **They will be able to relate relative velocity with their daily life experience**	• **To derive equations of motion using mathematical method, graphical method .**	• **To appreciate the contribution of Newton .**
June (19 Days)	**Unit 1. Physical World and Measurement** **Chapter 2: Units and measurements.** **Need for measurement, System of units, SI units, Dimensions of physical quantities ,dimensional analysis and its applications.**	• **Students will understand conversion of one system of units into another.** • **With the help of dimensional analysis they will be able to verify standard equations.**	• **Using vernier calipers, find the diameter and volume of a wire.** • **To prepare a paper scale of a given least count.**	• **To develop the practical use of vernier calipers and other measuring instruments in lab.** • **To develop scientific temperament of the students.**

| July (24 Days) | Chapter 4. Motion in a plane.

Scalar and vector quantities, position and displacement vectors, general vectors and their notations, equality of vectors, multiplication of vectors by a real number, addition and subtraction of vectors, Unit vector, resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors.
Motion in a plane, cases of uniform velocity and uniform acceleration, Projectile motion, Uniform circular motion.

Revision for Unit test | • **Students will learn about resolution of vectors.**
• **They will be able to solve problems of vectors.**
• **Students will learn about different techniques used in projection of bodies in vertical and circular directions.**

First Unit test | • **To find the range of projectile using jet of water.**
• **To verify parallelogram law of vector addition** | • **To relate projectile motion in their daily life.**
• **To relate projectile motion in satellite motion.** |

August (20 days)	Unit 3. Laws of motion. **Chapter 5: Laws of motion** Intuitive concept of force, Inertia, Newton's first law of motion, momentum and Newton's second law of motion, Impulse, Newton's third law of motion, Law of conservation of linear momentum and its applications, Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion, centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).	• Students will learn about basic laws of inertia and their application. • Students will learn about conservation of momentum in problem solving in mechanics.	• To demonstrate free body diagrams using pulley and table arrangement. • To demonstrate friction experiment using horizontal table. Friction using grave stone apparatus. • To prepare any suitable model based on laws of motion.	• To explain various conceptual events happening in our everyday life based on physics. • To develop scientific temperament of the students . To develop logical thinking to solve numericals. • To understand that friction is a necessary evil. • To appreciate the contribution of Newton & Aristotle .
	Unit 4.Work ,energy and power. **Chapter 6:Work, Energy and Power** Work done by a constant and variable force, Kinetic energy , Work energy theorem, Power. Potential and kinetic energy, Power Potential energy of a spring,	• Students will learn about types of work done and their applications. • They will learn about conservation of energy. • They will understand	• To demonstrate elastic collision in classroom teaching. • To demonstrate energy conservation using double inclined plane.	• To develop calculation skills. • To relate the concept with horse and cart problem.

conservative and Non-conservative forces, Motion in a vertical circle, Elastic and Inelastic collisions in one and two dimensions. **Unit 7. Motion of System of Particles and Rigid Body** **Chapter 7- System of Particles and Rotational Motion**	the concept of power consumption		
Center of mass of a two-particle system, momentum conservation and centre of mass motion, centre of mass of a uniform rod, Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications, Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects(no derivation).	• Students will learn about types of rotational motions and their applications. • They will learn about conservation of angular momentum • They will understand the concept of moment of inertia	• To demonstrate angular momentum conservation using brush and cylinder. • To demonstrate moment of inertia of rod, ring, disc, sphere. • To demonstrate moment of inertia of sphere is minimum • To make any suitable model based on rotational motion.	• To develop scientific temperament of the students • To develop practical skills. • To relate concept of moment of inertia and angular momentum with Ballet dancer, acrobat, diver and cat jump.

September (21 days)	Unit 8: Gravitation Chapter 8: Gravitation Kepler's law of planetary motion , Universal law of gravitation, acceleration due to gravity and its variation with altitude and depth, Gravitational potential energy and gravitation potential, escape velocity, orbital velocity of a satellite. **Revision for Term-1 Exams.**	• Students will learn about laws of gravitation and its applications. • They will learn about gravitational constant, value of acceleration due to gravity below and above the surface of the earth. • They will understand the concept of satellite motion and weightlessness. **Term -1 Exams**	• To determine acceleration due to gravity using simple pendulum • To demonstrate conservation of energy using simple pendulum	• To develop practical skills • To develop logical thinking to solve numericals . • To relate the concept with different cases of elevators • To appreciate the contribution of Aryabhatta, Galileo, Tyco Brahe, Kepler & Newton
October (22 Days) Nov (15 days)	Unit 7: Properties of bulk matter Chapter 9: Mechanical Properties of Solids Elasticity, Stress- strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity(qualitative idea only), Poisson's ratio, elastic energy. Chapter 10: Mechanical Properties of Fluids Pressure due to a fluid column, Pascal's law and	• Students will learn about elasticity, Young's modulus, stress strain relationship. • They will understand the concept of Bernoulli's	• To make stress- strain curve • To make any model based on Bernoulli's principle, Pascal's law, and other	• To develop scientific temperament of the students • To relate Bernouilli's and Pascal's law in

	its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure, Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.

Chapter 11: Thermal properties of matter

 Heat, Temperature, thermal expansion of solids, liquids and gases, anomalous expansion of water, specific heat capacity, calorimetry, change of state – latent heat capacity.
Heat transfer- conduction, convection and radiation, thermal conductivity, qualitative ideas of blackbody radiation, Wein's displacement law, Stefan's law. | theorem, working of hydraulic brakes, and atomisers

- **They will learn about Venturimeter, Torricelli's experiment and Poiseuillie's equation**

- **Students will learn about Ideal gas equation and absolute temperature**
- **They will learn about**
- **Specific heat capacity. Calorimetery, change of state, heat transfer**
- **They will understand the concept of Newton's law of cooling** | concepts of this chapter

- **To demonstrate   Newton's law of cooling and their applications.**
- **To demonstrate   experiment of calorimeter** | day to day life

- **To develop scientific temperament of the students**

- **To develop scientific temperament of the students** |

Dec (19 days)	**Unit 10 :Oscillations and Waves** **Chapter 14: Oscillations** **Periodic motion- time period, frequency, displacement as a function of time, periodic functions and their applications. Simple harmonic motion and its equations of motion, phase, oscillations of a loaded spring- restoring force and force constant, energy in S.H.M. Kinetic and potential energies, Simple pendulum derivation of expression for its time period.** **Chapter 15: Waves** **Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.**	• **Students will learn about types of oscillatory motions and their applications.** • **They will learn about velocity and acceleration in** • **SHM.** • **They will understand the concept of Free ,forced and** • **resonant oscillations** • **Students will learn about wave motion.** • **They will learn about Transverse and longitudinal waves.** • **Progressive waves. & Principle of super position** • **They will understand the concept of, reflection of waves and beats.**	• **To determine acceleration due to gravity using simple pendulum.** • **To demonstrate conservation of energy using simple pendulum and other springs** • **To demonstrate standing waves in a wire using tuning forks in sonometer** • **To demonstrate working of atomizer and uplift of an aeroplane.** • **To demonstrate elastic behavior of different solids**	• **To develop scientific temperament of the students** • **To relate Free , forced and resonant oscillations** • **in different cases. For eg. Collective march of soldiers on bridge** • **To develop scientific temperament of the students**

	Unit 8: Thermodynamics **Chapter 12- Thermodynamics** **Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy, First law of thermodynamics, Second law of thermodynamics, gaseous state of matter, change of condition of gaseous state-isothermal, adiabatic, reversible, irreversible, and cyclic processes.**	• **Students will learn Zeroth first and second law of thermodynamics**	• **To collect examples of reversible and irreversible processes.**	• **To develop scientific temperament of the students** • **To appreciate the contribution of Newton in Thermodynamics**
January (23 Days)	**Unit 9: Behaviour of perfect gases and Kinetic theory of gases** **Chapter 13: Kinetic theory** **Equation of state of a perfect gas, work done in compressing a gas, Kinetic theory of gases-assumptions, concept of pressure, kinetic interpretation of temperature, rms speed of gas molecules, degrees of freedom, law of equi- partition of energy and application to specific heat capacities**	• **Students will learn about Molecular nature of matter, behaviour of gases** • **They will learn about law of equipartition of energy** • **They will understand the concept of mean free path**	• **To explain pressure in a gas** • **To calculate specific heats of various substances.** • **To solve numerical in gas laws.**	• **To develop scientific temperament of the students**

	of gases, concept of mean free path, Avogadro's number. **Revision and Preboard exams**			
February (23days)	**D.A.V BOARD EXAM. FINAL PRACTICAL EXAM**			
March (22 days)	**D.A.V BOARD EXAM. FINAL PRACTICAL EXAM**			

Chapter-wise weightage of marks

Unit	Chapter	Marks
Unit–I	Physical World and Measurement	
	Chapter–2: Units and Measurements	
Unit-II	Kinematics	
	Chapter–3: Motion in a Straight Line	23
	Chapter–4: Motion in a Plane	
Unit–III	Laws of Motion	
	Chapter–5: Laws of Motion	
Unit–IV	Work, Energy and Power	
	Chapter–6: Work, Energy and Power	
Unit–V	Motion of System of Particles and Rigid Body	
	Chapter–7: System of Particles and Rotational Motion	17
Unit-VI	Gravitation	
	Chapter–8: Gravitation	
Unit–VII	Properties of Bulk Matter	
	Chapter–9: Mechanical Properties of Solids	
	Chapter–10: Mechanical Properties of Fluids	
	Chapter–11: Thermal Properties of Matter	
Unit–VIII	Thermodynamics	20
	Chapter–12: Thermodynamics	
Unit–IX	Behaviour of Perfect Gases and Kinetic Theory of Gases	
	Chapter–13: Kinetic Theory	
Unit–X	Oscillations and Waves	
	Chapter–14: Oscillations	10
	Chapter–15: Waves	
Total		**70**

Practical details

Type of Question(s)	Mark(s)	Total Marks
Experiment 1	08	
Experiment 2	08	
Journal	05	30
One activity from any section	03	
Viva	06	

Syllabus for Exams

S.No.	Name of the Exam	Chapter No.
1	Unit Test 1	2,3 & 4
2	Term 1	2,3,4,5,9
3	Pre- Board Exams	Full Portion (Vol-1 & 2)
4	Final DAV Board Exams	Full Portion (Vol-1 & 2)

Syllabus (2023-2024)
Subject: (Biology)
Std: XI

Month & Days available for teaching	Unit / lesson / Contents	Learning outcomes	Assignments & Activities	Values/ Skills
June –19 days	**UNIT I DIVERSITY IN THE LIVING WORLD:** **Lesson 1** **The living world**	**Students know what is living? biodiversity, taxonomy and systematic, binomial nomenclature**	**Tables** **Flowcharts**	**Taxonomical hierarchy and classification**
	Lesson 2 **Biological classification**	**Students know five kingdom classification,salient features and classification of major groups**	**Diagrams** **Mnemonics**	
	Lesson 3 **Plant Kingdom**	**They understand how classification is related to evolution.**	**To study diff. plant specimens**	**Organization skill.**
	Lesson 4 **Animal Kingdom** **Unit III** **Cell:Structure and Functions**	**They study the features and uses of diff. plant divisions.** **Children study vast diversity and phylogeny of diff. animal phyla.**	**To study diff. animal** **Diagrams with labelling specimens**	**Coexistence in nature increasing**
	Lesson5 **Cell: The Unit of Life**	**They understand the cell theory, str. of typical Prokaryotic and Eukaryotic cell.**		**Functioning of a biological system complexity**

July – 24 days	Lesson 17 Breathing and exchange of gases	Students understand structure and working of human respiratory system and occupation diseases	Diagram Worksheet	Significance of Pranayama Bad effects of smoking and pollution
	Lesson 18 Body fluids and circulation	Students understand the structure ,function of heart,blood grouping,coagulationECG, disorders of circulatory system.	Diagram Worksheet	Need for Physical exercise and healthy lifestyle
	Unit Test -1			
August – 22 Days	Lesson 19 Excretory products and their elimination	Students understand osmo regulation and regulation of kidney function dialysis and kidney transplant.	Diagram Worksheet	Importance of body fluids and oral rehydration.
	Lesson – 20 Locomotion and movement	Students understand skeletal systems and it's functions, joints , disorders of systems.	Identifying bones and joints.	Importance of ions in muscle contraction.

	Lesson – 21 Neural control and coordination	**Students understand human nervous system , generation and conduction of nerve impulses.**	**Diagrams and Worksheet.**	**Understanding of functions of neurons , sense organs , sensory perception.**
September – 21 days	**Lesson – 22 Chemical control and coordination.**	**Students understand human endocrine system , hormones – their hypo and hyper activity and related disorders.**	**Diagrams and Worksheet.**	**Role of hormones as messenger and regulators.**
	Term -1 Exam			
October 22 Days	**Morphology of flowering plants.**	**Students learn morphological characters of plants and learn to describe plant families.**	**To study root stem leaf modifications and different types of inflorescence.**	**Awareness of need for modification in plants**
	Anatomy of Flowering Plants	**They become aware of various types of tissues, tissue systems, their functions in plants.**	**To study diff. plant tissues** **T.S. dicot and monocot stem, root.**	**Observation skill**
	Structural organisation in Animals	**The students understand various tissues in animals and also the increasing complexity.**	**Diagrams and worksheets** **To study diff. animal tissues - from permanent slides.**	**Observation skill**
	Plant Physiology	**Get idea of basic principles of Photosynthesis** **They understand respiration and ATP synthesis in plants.**	**Diagrams, worksheets**	
November (15 days)	**Photosynthesis**	**They know the role of phytohormones in Plant growth and development**	**Diagrams, cycles.**	**Love for plants, producers of the ecosystems and pollution checkers.**
	Respiration	**They will understand how taxonomy helps in explaining the diversities, identification of species.**	**Graphs, Worksheet**	
	Plant Growth and Development		**To study taxonomic aids**	

	Biomolecules	Students understand chemical constituents of living cells , enzymes , types properties and their actions.	Tables , Graphical representations.	Awareness about variations of cells , chemical reaction inside a cell and enzyme activity.
	Cell cycle and cell division	Students comprehend cell cycle , mitosis , meiosis and their significance.	Study of mitosis from permanent slides.	Cell multiplication , inheritance and variation.

BIOLOGY (THEORY)   STD XI   TIME-3 HRS.

ONE PAPER   MARKS: 70

UNIT WISE DISTRIBUTION OF MARKS

1. DIVERSITY IN LIVING WORLD   15
2. STRUCTURAL ORGANISATION IN ANIMALS AND PLANTS   10
3. CELL; STRUCTURE AND FUNCTION   15
4. PLANT PHYSIOLOGY   12
5. HUMAN PHYSIOLOGY   18

TOTAL   70

PORTION FOR UNIT TEST : CHAPTERS 1, 2,3,4
PORTION FOR TERM 1 : CHAPTERS 1, 2,3,4, 8, 17,18,19,20
PORTION FOR UNIT TEST 2 : CHPATERS 5,6,7,21,22
PORTION FOR PRELIM AND BOARD EXAM: CHAPTERS: FULL SYLLABUS

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DAV PUBLIC SCHOOL, AUNDH, PUNE
GEOGRAPHY SYLLABUS FOR STD XI (2023- 2024)

MONTH AND NO. OF WORKING DAYS	UNIT	CONTENT	LEARNING OUTCOMES	ASSIGNMENT/ ACTIVITY	VALUE/ SKILL
APRIL-13 DAYS	PART-A Chapter-1 Geography as a discipline. PART- B Chapter: 1 India location.	• Geography as an integrating discipline. • Importance of Physical geography. Space relations and India's place in the world.	• Understanding the relationship between physical environment and socio/cultural features. • Arial differentiation • General understanding of the Meridian • Longitudinal extent and its implications on the Indian people.	• Prepare a flow chart to explain the various branches of geography. • Map work	• The study of geography the understanding of ed balance. • Map Skill. • Unity in Diversity.

JUNE-19 DAYS	**Part A** **Chapter:2** **The origin and evolution of the Earth.** **Chapter:3** **Interior of the Earth.** **Part -B** **Chapter:2** **Structure and Physiography** PRACTICAL CHAPTER-1	**Modern theories, Our solar system and Evolution of the Earth** • **Interior of the Earth** • **Earthquakes and volcanoes: causes, types and effects** • **Structure and relief** • **Physiographic divisions**	**To understand the various hypothesis related to the evolution of the earth.** **To study the impact and influences of exogenic and endogenic processes.** • **Understanding the geological structure.** • **Features and importance of every Physical divisions.**	**Diagram of Big bang theory.** **Diagrams** • **Map Work – India major Physical divisions.**	**Geography is the study of earth science** **Human life is influenced by the Physiography of the region.** • **Map Skill.** • **Earth as our home.**
JULY-24 DAYS	**Part A** **Chapter- 4** **Distribution of Oceans and Continents**	**Continental drift theory and Plate Tectonic theory.**	• **Understanding the various landforms under water.** • **Rotation, Revolution and other Physiographic influence on the shifting of Continents.**	**Map work**	**Map Skill** **Distribution of Continents – puzzle.**

Chapter: 6 Landforms Geomorphic processes:	• **Weathering;** **mass wasting;** **erosion and** **deposition;** **soil-formation**	• **Geomorphic** **processes** • **Formation of** **soil** • **Landform** **features** **formed by** **natural agents**	Soil profile (diagram)	• **Significance of soil as a** Resource
Part B **Chapter:3** **Drainage System**	• **Drainage** **system** • **Concept of** **water shed** • **The** **Himalayan** **and the** **Peninsular** **rivers.**	To understand and differentiate the various geological changes made by running water.	Map work- Major rivers of India.	• **Water is the lifeline of** our economy. • **Availability of water led** to the establishment of civilizations.
PRACTICAL **CHAPTER-2 & 3**				

AUGUST-23 DAYS	Part B Chapter:4 Climate.	• Weather and Climate. • Spatial and Temporal distribution. • Pressure, Wind and Rainfall. • Seasons of India	• Understanding the mechanism of monsoon. • Understanding the characteristics of Indian seasons	• Map work – Indian Annual Rainfall. • Mind map	• Geography is a systema study of all natural processes. • Map skill
	Part A Chapter:8 Composition and Structure of Atmosphere.	• Composition and structure of Atmosphere.	• Atmosphere is the integral part of the earth. • Each layer of atmosphere has unique functions.	Diagram – Structure of Atmosphere.	Nature's distribution of basic elements of earth for the sustenance of life.
	Chapter: 9 Solar Radiation	• Solar radiation • Heating and cooling of atmosphere • Heat budget of the Earth	• The variation in temperature causes pressure difference on the earth surface. • This pressure difference leads to various wind patterns.	Diagram- Heat budget of the earth.	• Sun is the main source of energy' – reinforced • Critical thinking.
	PRACTICAL CHAPTER-4				

SEPTEMBER- 21 DAYS	**REVISION AND MID TERM EXAM**				
OCTOBER-22 DAYS	**Part A** **Chapter:10** **Atmospheric circulation and weather Systems**	• Pressure belts; • Winds planetary, seasonal and local; air masses and fronts; tropical and extra tropical cyclones	• Wind redistributes heat and moisture across thereby maintaining a constant temperature of the planet as a whole.	Diagram- wind belts of the world with pressure variations.	Nature is systematic and rhythmic. Concept of discipline and consequences of indiscipline act in nature.
	Chapter: 11 **Water in the Atmosphere.**	• Various forms of water in the atmosphere • Types of rainfall and its distribution	• To understand the exchange of water between the various realms of earth. • The process of Evaporation, Condensation and Precipitation and its functions.	Assignment sheet	• Concept of discipline and consequences of indiscipline act in nature. • Sustenance of life not possible without water.
	Part B <u>**Chapter: 5**</u> **Natural Vegetation**	• Forest types and distribution • wild life; conservation • biosphere reserves	• To understand the basic reasons for a variety of vegetation in our country. • Interdependency of natural	Map work- major biosphere reserve.	Ecological balance is important for sustenance of life

			vegetation and wild life on man and visa-versa		
	PRACTICAL CHAPTER-5				
NOVEMBER- 15 DAYS	**Part A** **Chapter- 14** **Movements of ocean water.** **PRACTICAL CHAPTER-6**	• **Waves, Tides and Currents**	• **Types of tides and ocean currents**	**Map work- Major ocean currents of the world**	**Map Skill**
DECEMBER- 19 DAYS	**REVISION FOR PREBOARDS AND INTERNAL ASSESSMENT ACTIVITIES**				
JANUARY 2024- 23 DAYS	**REVISION AND PREBOARD**				
FEBUARY- 23 DAYS	**FINAL EXAMINATION**				

Syllabus (2023-2024)
Subject: (Informatics Practices) (IP) - PYTHON
Std: XI

Month & days available for teaching	Unit / Content	Learning outcome	Assignment/Activities	Values/Skills
April 14 Days	**Unit I** **Lesson1 – Introduction to Computer System** - **Computer Organization** - **Input and Output devices** - **CPU and its architecture** - **The Main Memory** - **Cache Memory** - **Storage Devices** - **The System Bus** - **Computer System and Data** - **Software (System Software, Application Software, Proprietary and OSS)**	**Students will able to understand the revolutionized the world around us. The modern age of using technologies like smartphone, photos editing, music, etc.**	**Finding the Evolution of computer on the scale of 500 BC to 5th generation computer.**	**Using technology in right way and maintaining the hardware devices.**

	Unit II
	 Lesson 2 – Getting started with Python
	 - **Introduction**
	 - **Python – Pluses and Minuses**
	 - **Working in Python**
	   1. **Working in Default Python Distribution**
	   2. **Writing and Compiling Python Code**
	 - **Understanding First Program/Script**
		Students will be learning to program using a Python	**Open-source Python Shell**	**Introducing Programming Language**

June 19 Days	**Lesson 3 – Python Fundamentals**
	 -Introduction
	 -Python character Set
	 - **Tokens**
	 - **Barebones of Python Program**
	 - **Variables and assignments**
	 - **Simple Input and Output**
	   1. **Reading numbers**
	   2. **Output Through print Statement**
		Students will be learning basic fundamentals of Python IDE
		
		 Students will be aware of writing efficient code.
			Check Point 3.2
			 Literals in python
			 Escape sequence(\ )
			 Some built-in Literals
			
			 Check Point 3.1
			 Built-in core data types
			 Data types and variables
			 Int datatype
			 Boolean datatype
				Developing logic

July
24 Days
UNIT TEST-1
	Lesson 4 – Data Handling
	- Introduction
	- Data Types
	   * Numbers
	   * Strings
	   * Lists and Tuples
	   * Dictionary
	- Mutable and Immutable Types
	- Operators
	   * Arithmetic
	   * Relational
	   * Identity
	   * Logical
	   * Bitwise
	   * Operator Precedence
	- Expression
		They will be learning about Python tokens such as keywords, identifiers, literals, operators and separators, along with data expressions.
		
		Students will be learning about how to do computation in Python.
			Check Point 4.2
			
			Complex numbers
			Floating point numbers
			
			Mathematical deviations programs
			
			Correlation Coefficient Programs
				Developing logic and Introducing critical thinking

August
23 Days
	Lesson 5 – Conditional and Iterative Statements
	-Introduction
	- Types of Statements in Python
	- Statement Flow Control
	- Program Logic Development Tools
	- The if Statement of Python - Repetition of Tasks
	- The range( ) function
	- Iteration/Looping Statements
	   * The while loop
	   * Loop else Statement
	   * Jump Statement- break and continue
	   * Nested Loops
	
	Lesson 6 – List Manipulation
	- Introduction
	- Creating and Accessing Lists
		The Students will be discussing various program flow control statements viz. selection statement, iteration statements and jump statements.
		
		Students will be learning programming constructs briefly and will design, code the small programs independently
			Programs on loops and finding output.
			
			All text book examples
			
			Indexing and slicing of String.
			Real life programs
				Learn to make decision

September **21 Days** **TERM -1**	**Lesson 6 – List Manipulation (contd)** **- List Operations** **- Working with Lists** **- List Functions and Methods** **Lesson 7 – Dictionaries** **-Introduction** **- Dictionary Key:Value Pairs**	**Students will learn the advance concepts of Arrays**	**Storing data in less memory programs** **Accessing members of list related programs**	**Developing critical thinking**

| October
22 Days | Lesson 7 – Dictionaries (contd.)
- Working with Dictionaries
- Dictionary Functions and Methods

Lesson 8 – Databases Concepts
- Purpose of DBMs
- Relational Database Model
- Brief History of MySQL
- MYSOL database System
-Starting MySql
- MySQL and SQL | Students will how data-items are organized in Python dictionary.

Students will learn how use the existence code. The basic feature of OOPs | Storing values in Pairs and accessing it through coding

Re-usability of code through modules.
Module coding | Programming Logic will be developed.

Reusability of code in different programs |
| November
15 days | Lesson 9 – Simple Queries in SQL
- SQL Elements
- SQL Commands
- Sample Databases | Students will learn Pandas Library, the basic data structure.
Students will learn the basic purpose of DBMS in real life and world. | Importing library through Pandas
Storing real time data in database. Designing and storing data. | Skills like how importance of data |
| December
19 Days | Lesson 9 – Simple Queries in SQL(contd.)
- Making Simple Queries
- Creating table
- Inserting into Tables
- Select Queries
-Accessing Database
- The SELECT command
- Reordering columns
-Distinct keyword
- Simple calculations
- Handling Null values
-Modifying Data using UPDATE command
-Deleting Data using DELETE command
-DDL commands
-ALTER and DROP | Students will be learning MySql functions.
They will learn how the functions have been categorized into various categories, such as String, Mathematical, date and time functions.
The students will be creating, modifying a database's structure, changing security settings for system, permitting users for working on databases or tables, querying database, Inserting /Modifying /Deleting the database contents. | Queries on one or more tables.
Search values queries.

Bifurcation different commands.
Making use of built-in examples. | Managing different data on computer |
| January
23 Days
PREBOARD | Lesson 10 – Emerging Trends
-AI
-Robotics
-Big Data | Students will understand the rapid growth technology and impact of these on our lives. | Check point 10.1
Various definitions.
What is big data?
Eg of IoT and WoT | Updating to new trends and technologies. |

	-Internet of Things (IoT) -Cloud Computing -Grid Computing -Block chain Technology	This chapter will teach recent trends in computing and information technology.		
February 23 Days	Final Theory and Practical Examination for std 11th	**REVISION**		
March 22 Days	Final Theory and Practical Examination for std 11th	**REVISION**		

Board Marking scheme for THEORY – Marks (70)   Time : 3 hrs

Topics / Units	Marks
Unit-1 (Le1)	10
Unit-2 (Le2, Le3, Le4, Le5, Le6, Le7)	25
Unit-3 (Le10, Le11)	30
Unit-4 (Le12)	5
Total	**70**

Practical   - Marks: 30 (Term – 1 / Preboards/Finals) Time : 3 hrs
Marking scheme for Practical

Topics / Units	Marks
Programs using Python (if..else.. Case Study)	10
Programs using Python (for-loop and while-loop)	5
SQL Create Table and Insert values	5
SQL Queries on tables	10
Total	**30**

Subject to change *

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	SUBJECT: MEDIA STUDIES STD XI			
Month Working Days	**Unit/Content**	**Learning Outcomes**	**Assignments or Activities**	**Values/Skills**
April 16 days	Unit 1, L.1 Introduction to Mass Media Practical: 1.Introduction to photography 2. GD on the recent topics in media. L.2 Aspects of Mass communication Practical: 1. Role play in given situations.	To understand the concept of mass media of communication To understand the various kinds of media To understand the process & stages of Communication.	Portfolio preparation is progressive. The portfolio is a compilation of the practical component of the syllabus. 1. Using mobile or digital camera, click 10 photographs of the theme provided. 2. Movie review..	Students realize the value of media in motivating the masses. The most effective media for a given topic. To create social consciousness through effective chosen media.
June 19 days	L.3 Barriers to Communication Practical: 1.Students enact situation depicting barriers. 2.Watch episodes of Mind your language depicting barriers in communication. Employability skills Unit 1: Communication Skills Unit 2 : Evolution of Media L.1 Understanding Cinema I	. To understand the barriers which obstruct proper communication among people. To understand how to overcome these barriers. To become better communicators To understand the different communication medium and their content	1.Developing dialogues in communication in various stages. 2.Students enact situations from films & plays depicting various barriers in communication. 3.Collect information on cultural nuances in various countries of the world.	To understand the difference between phatic personal & intimate communication. Learn the skill of evaluating a film or television programme in the right context. Skill of communicating properly according to the medium of communication. Value of being correct in communicating with others

July 24 days 1 UNIT TEST	L.2 Understanding of cinema II L.3 Understanding Of TV Practical: 1.Watch the sequence of the movie in class and discuss on the parameters given. 2.Watch few episode of different genres of television programs.	To understand how cinema comprise all other art forms To understand how cinema is a complex narrative To understand the difference between cinema and theatre To understand the type of content shown on television To understand different types of television program format.	1.Make a chart with pictures of various elements which highlight the specificity of Television as a medium of infotainement. 2. Mention your favourite programme and give reasons as to why you like it. If the producer is to be given suggestions for its improvements, what would you like to suggest?	Understanding of cinema and its content To learn and incorporate the other art form in cinema. Understanding the concept and making of the content is different for all the medium. Value the history of Indian cinema and its pioneer.
August 23 days	L.4 Print media and its types L.5 Radio genres and its types L.6 Internet Practical 1.Bring newspaper in class and compare different format of the newspaper. 2.Listen to different radio programs Employability Skills Unit 2 Self management skills	To understand the value of non-fiction & its uses. To realize how cinema began in India. To understand how the Internet has grown and its uses.	1. Collect info. on media jargon.eg. tabloid, broadsheet. 2. Write an article for the newspaper on role of mass media in the freedom struggle.	Value of pioneering producers of yesteryear & their perseverance & expertise. Learning to appreciate the efforts of great directors such as DG Phalke, Satyajit Ray etc.

September 21 days	Unit3. Understanding Media L.1 Media Literacy i. Introduction to mass media ii. Viewing of prescribed films iii. .Audience theories. iv. Media ownership. v. Media Representation vi. Media and violence Practical: Introduction to video editing software (windows movie maker/ video editor)	Students will be able to critically evaluate media messages. Critical evaluation techniques of understanding media messages. Students learn the principles behind advertising, what motivates the makers of adverts to decide on the medium. . .	1.Students analyze a programme after a serious viewing. 2.Students find out all about the producer, director and target audience of the programme 3. Critically evaluating various adverts.	Students learn not to follow the media blindly. Learn to make an effective advert. Learn to organize a film shot. Using Editing software easily.

October 22 days	L.2.Aspects of Film Language
	i.Mise en scene
	ii.Parameters of film analysis
	a)fiction films
	b)non-fiction films
	
	L3.Content Analysis of TV programs
	  i. Cinema & TV
	  ii. Soap Opera
	  iii. Media Culture
	  iv. Educational TV
	  v. Reality TV
	
	L.4. Content Analysis of Newspapers & Periodicals.
	
	L5.Content Analysis of Radio Programs
	.
	L6. Features of Internet
	
	Practical:
	Video Camera Handling and practice.
		How the ground plan and planning a shot affects the film.
		
		How to review films
		
		Students learn how to make soft films and editing techniques Understand all about the basis of various TV programs made.
		
		Why news papers highlight certain news.
		
		 Understand the importance of radio in reachingbthe people.
			1.Notice each shot of a chosen film such as Attenborough's Gandhi and understand the concept of, 'mise en scene'.
			
			2.Watch a soap opera and review it.
			
			3.Conduct a survey on favourite shows watched in the neighbourhood and write a report in the portfolio.
			
			4.Learning all about appearing on TV
				Learn to make an interesting soap operas.
				
				Learn to analyze the news printed in the media.
				
				How to make a successful Radio program on Radio or TV.

November 15 days	Unit 4 Pre-production skills L1.Story as a self content world L2. Story as a subjective experience	To understand the concept of fiction writing.	1.Read a short story & review it. 2.Select a novel or movie & review it in terms of the theme, plot, script,	Skill of appreciation & reviewing quality fiction. Appreciating the technique of writing & style in

		To comprehend the difference between theme, plot, story, script, climax, anti-climax, suspense, irony, humour, satire.	characterization etc.	Classics.
	L3. Content of story Practical: Working on group project	To know and understand the concepts of writing short stories & novels.		
December 19 days	L.4 Techniques of storytelling L.5 Genres of story Employability skills Unit 3: ICT Skills Unit 4: Entrepreneur Skills Unit 5: Green skills	To know and understand the concepts of writing short stories & novels. To understand different techniques in which the story can be narrated.	Collect info. about the style of writing of a specific writer..	Skill in writing scripts & short stories. To develop understanding about different genres and style of stories.
January 23 days	Revision for final exam			
February 23 days	Revision for final exam			
March 22 days	Revision for final exam			

-                 Exam pattern

Theory : 60 Marks

Practical: 40 Marks

- Theory : 10 marks + 50 marks

10 marks : Employability Skills

50 marks : Subject Skills

- Practical Includes:

10 marks: Portfolio file (Activities conducted in the class over the session)

15 marks: Hands on knowledge of softwares (video editing software)

10 marks: Project (Group Project)

05 marks: Viva

Sub: - **PHY - EDU**   Std: - **XI**

Month / Working days	Unit / Content	Learning outcome	Values &Skills
April	Warm up Cricket (Theory), Basketball	Team Spirit Health, Discipline To understand the game	**Values -** To develop agility, speed, body balance, flexibility, endurance **Skills-**Batting and balling techniques, Basketballdribbling , dodging , throwing . passing techniques, rules of the games
June	Warm up Theory (Football) Dodgeball, Football	Imagination Health, Discipline To understand the game	**Values -**Physical Fitness, Hand and eye Co-ordination **Skills-**Throwing and dodging, techniques, dribbling, long kicks, long passes.
July	Warm up Badminton, Table Tennis	Thinking Health, Discipline To understand the game	**Values** - Co-ordination, Concentration, Stamina **Skills-** Grip, stance, stroke, service smash
August	Warm up Football, Basketball	Self Confidence Health, Discipline To understand the game	**Values -** To develop mentally and physically fit **Skills-**Kicks ,passes, dribbling, trapping Throwing techniques,
September	Warm up Basketball	Understanding Health, Discipline To understand the game	**Values -** To develop agility , speed , body balance flexibility, endurance **Skills**- Passes, dribbling, pivot
October	Warm up Throw Ball, Ring Tennis	Co-Ordination Health, Discipline To understand the game	**Values** - Team spirit, Sportsman Spirit **Skills**- Grip , stance, ThrowingTechniques, Catching techniques

November	Warm up Volleyball, Throw ball	Co-Ordination Health, Discipline To understand the game	**Values** - To develop muscular strength, endurance, stamina **Skills-**Service techniques,smash techniques, throwing, catching techniques
December	Warm up Kho-kho Football	Grasping Health, Discipline To understand the game	**Values** - To become a good citizen through the sports **Skills-**Stance, kho techniques, penalty kick, off side, rule of the game
January	Warm up Basketball	Co-Ordination, Physical Fitness Health, Discipline To understand the game	**Values** - To develop Hand and Eye Co-ordination, Team sprit stamina. **Skills** - Dribbling, Chest passing, Lay-up shot
February	Warm up Football, Basketball	Physical Fitness Health, Discipline To understand the game	**Values -** To develop Physically & mentally Fit, Team sprit **Skills**- Heading and throw-in techniques, goal keeping, Dribbling, passing, rules of the game

STD XI

Month & Days Available for Teaching	Unit /Name of Lesson/Content	Learning Outcome	Assignment or Activities	Values / Skills
April 14 days/ June19 days	I <u>Introduction to Accounting</u>: a. Accounting- meaning, objectives, accounting as a source of information, Internal & External users of Accounting Information. b. Qualities and characteristics of accounting information. c. Basic accounting terms.	1. Students learn basic accounting terminology. 2. Students can identify and use accounting terms.	Learn the definitions of various terms. Solve worksheet 1.	Develop skill of identifying various accounting terms
	II <u>Theory Base of Accounting</u>: a. Accounting principles- meaning & nature. b. Accounting concepts c. Systems of accounting d. Basis of accounting – Cash & Accrual e. Accounting Standards	1. Students learn & understand concept of accounting standards, concepts and principles. 2. Students understand the process of accounting. 1. To understand the meaning and characteristics of GST 2. To understand the objectives of GST	Solve worksheet 2	Develop Accounting skills Develop skill of doing simple calculations of GST

	III Goods & Services Tax (GST)			
July 18 days	IV Recording of <u>Business Transactions</u> <u>I & II:</u> a. Source documents b. Accounting Equation c. Vouchers – types and formats d. Rules of Debit & Credit – American & English approach. e. Books of Original Entry f. The Ledger g. Posting from Journal. h. Special Purpose Books – Cash Book, Sales Book, Purchase Book, etc.	1. Students learn & understand rules of debit & credit and to apply them while preparing accounts. 2. To prepare various books of accounting.	Solve textbook exercise.	Developing skills of recording business transactions
August 23 days	V <u>Trial Balance &</u> <u>Rectification of</u> <u>Errors:</u> a. Trial balance- meaning, objectives & preparation. b. Errors- types of errors Detection & rectification of errors.	1. To learn and understand how to prepare a trial balance, to locate errors and rectify them. To know and understand reasons for non-agreement of TB and rectify them.	Solve TB exercise.	Develop skills of locating errors & rectifying them while preparing Trial Balance
September	Revision			

10 days	IV Bank Reconciliation Statement:
	  a. Meaning & need
	  b. Preparation of a BRS
		1. Students understand the meaning of BRS.
		2. And learn to prepare a BRS.
			Solve TB exercise.	Develop skills of reconciling Bank Statement to Cash Book

September11 days/October 10 days	V Depreciation, Provision & Reserves:
	  a. Depreciation – meaning and need for charging depreciation.
	  b. Factors affecting depreciation.
	  c. Disposal of assets.
	  d. Provisions & reserves – meaning and importance, difference between provisions and reserves, types of reserves.
		1. Students understand and learn the need for charging depreciation.
		2. Students successfully use depreciation to allocate funds for replacements of assets.
			1. Solve worksheet 3
			2. Solve textbook exercise.
				Develop skills of charging depreciation on Assets & Creating reserves and Provisions

October12days/November 15 days	VIII Financial Accounting: a. Financial statements – meaning & uses. b. Distinction between Capital and Revenue expenditure c. Trading & Profit &Loss Account. d. Balance Sheet – need, grouping & marshalling of assets & liabilities, vertical presentation of financial statements	1. To learn and understand the importance of preparing Financial Statements. 2. To identify capital and revenue expenditure & income. 3. To prepare and tally final accounts of different companies.	1. Solve TB exercise. 2. Project: Identify a company, prepare a detailed information report on the same, write a brief summary of accounting cycle. (Project to be done in Christmas break and to be submitted in 1st week of January)	Develop skills of preparing Final Accounts Develop skills of preparing Home Budget
December 19 days	e. Adjustment in preparing financial statement f. Preparation of Profit & loss account and balance sheet of sole proprietorship. X. Accounting from Incomplete Records	To learn & understand the meaning of Single Entry System.	Solve TB exercise	Develop skill of Accounting treatment from incomplete records

PORTION

UNIT TEST   :   1) Introduction to Accounting   2) Theory Base of Accounting   3) Accounting Equation

TERM 1   : UNIT TEST PORTION + 1) Recording of Transactions I & II   2) Trial Balance

PREBOARD   : TERM 1 PORTION + 1) Depreciation, Provisions & Reserves   2) Rectification of Errors
3) Financial Statements of Sole Proprietorship 5) Bank Reconciliation Statement
FINAL EXAM : PREBOARD PORTION + Accounting from Incomplete Records

Unit	Topic	Marks
Part A	Financial Accounting 1	
1	Theoretical Framework	12
2	Accounting Process	44

Part B	Financial Accounting 2	
3	Financial Statements of Sole Proprietorship from Complete and Incomplete Records	24
Part C	Project Work	20

WEIGHTAGE AS PER CBSE GUIDELINES

UNIT TEST1: PAPER PATTERN

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1m x 10 = 10m
3m x 4 =   12m
4m x 4 =   16m
6m x 2 =   12m
20 Ques = 50m
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TERM 1: PAPER PATTERN

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1m x 20 =  20m
3m x 6 =   18m
4m x 3 =   12m
6m x 5 =   30m
34 Ques = 80 m
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PRELIM 1 AND FINAL PAPER
PATTERN AS PER DAV BOARD

1m x 20 = 20m 3m x 6 = 18m 4m x 3 = 12m 6m x 5 = 30m **34 Ques = 80m**	There will be internal choice in 1m, 3m, 4m, & 6m

Syllabus (2022-2023)
Subject: (Chemistry)
Std: XI

Month and days available for teaching	Unit / Content	Learning outcome	Assignment/ Activities	Human Values/Skills
APRIL -14 days	Unit 1- Some basic concepts of chemistry	To understand that Chemistry is the science of molecules and their transformations and the ways by which we can quantify and qualify them.	In text questions, exercises questions and worksheet questions	The student appreciates the fact that each and everything in this world is made up of molecules or atoms and is able to think in the deeper aspects of life.
JUNE –19 days	Unit 2 -Structure of atom	1. To understand the internal structure of atom using various experimental results. 2. Understand the various models of atomic structure. 3. Define an atomic orbital in terms of quantum numbers and writing the electronic configuration of an atom. 3. Define an atomic orbital in terms of quantum numbers and writing the electronic configuration of an atom.	Write the electronic configurations of elements using s, p, d and f symbols, In text Qs., exercises questions In text Qs., exercises questions	To understand and appreciate that the rich diversity of chemical behaviour of different elements The rich diversity of chemical behaviour of different elements can be traced to the differences in the internal structure of atoms of these elements
JULY - 24 days	Unit- 2 Structure of atom continued…. Unit 3 -Classification in elements and periodicity in properties.	The student understands about the classification of elements and the convenience of doing it for easy study of all the elements. He is able to apply the knowledge to relate to the properties	To draw periodic table in a neat manner, Intext questions, exercises questions	The student is amazed about the fact that how nicely the different elements have similar properties based on their outer electronic configuration.

AUGUST –22 days				
	Unit 4 -Chemical bonding and molecular structure	**1. To understand about the different types of bondings in atoms to form molecules** **2. To understand the shape of molecules in terms VSEPR theory.** **3. To understand the concept of hybridization and molecular orbital theory.**	**In text questions, exercises questions and worksheet questions**	**The student is able to relate the bonding to the daily life relationships and appreciates the wonder of nature at the atomic level.** **The students are able to identify different types of chemical bonding.**
AUGUST –22 days	**Unit 08 Redox reactions**	**To understand the concept of oxidation and reduction and how to calculate oxidation no.** **2.The student understands the basic concept and balancing of oxidation and reduction in terms of electron.**	**Intext questions, exercises and worksheet**	**Student is able to relate the electrochemical cell as a redox system and is able to appreciate the reactions taking place in cells**
SEPTEMBER -21 days	**Unit 6 -Thermodynamics**	**1. To explain and understand the terms system, surroundings, open, close and isolated systems, internal energy, work, heat and state first law of thermodynamics.** **2. Explain state functions U, H, correlate ΔU and $\Delta H$and define State and apply Hess s law of constant heat summation.**	**In text questions, exercises questions**	**.** **To understand the applications of first law of thermodynamics.** **The students are able to understand the condition for the spontaneity of a reaction. The student is able to appreciate about the endothermic and exothermic compounds and also the factors**

		leading to the special property.

OCTOBER – 22 DAYS	Unit -6 Thermodynamics continued…	. Understand the difference between intensive and extensive properties, spontaneous and non-spontaneous processes, entropy as a state function and its relation with the free energy change of a system. establish a relationship between free energy change and equilibrium constant.	Work sheet	Student will be able to predict the feasibility of a chemical reaction in terms of free energy change.
OCTOBER – 22 DAYS	Unit 7 -Equilibrium	1. To understand the concept of equilibrium in chemical and physical processes, law of equilibrium, homogeneous and heterogeneous equilibrium. 2. To understand about the applications of equilibrium constants, relationship between equilibrium constant, reaction quotient and Gibbs energy. Understanding about the factors affecting equilibrium. To understand about the ionic equilibrium in solutions, acids, bases and salts and their ionization, buffer solutions, solubility equilibrium of sparingly soluble salts.	In text questions, exercises questions and worksheet questions Define Bronsted acid, base	The student understand and appreciate about the dynamic nature of equilibrium in chemical and physical processes and to explain the law of equilibrium. The student is able to understand and appreciate about the equilibrium of acids, bases and salts in terms of its ions. Student is able to appreciate the difference between acids and bases

NOVEMBER -15 days	Unit 12 -Organic chemistry – some basic principles and techniques.	The student understands more about the carbon compounds, understands the nomenclature, various types of reactions and also the purification techniques.	In text questions, exercises questions and worksheet questions	The student is able to appreciate the versatility of organic compounds.
DECEMBER -19 days	Unit 13- Hydrocarbons	1.Student understands the qualitative analysis of different elements in organic compounds 2. Student understands the classification of alkanes, alkenes and alkynes and also the aromatic hydrocarbons. 3.Student understands and applies the IUPAC nomenclature knows, understands about the reactions, mechanisms and properties.	In text questions, exercises questions and worksheet questions	Student appreciates the classifications and able to relate to the daily life used hydrocarbons. The student understands appreciates and applies the IUPAC nomenclature knows, understands about the reactions , mechanisms and properties
JANUARY- 23 days	REVISION / PREBOARD			

FEBRUARY- 23 Days				
	FINAL EXAM			

Portion

Exam	portion
Unit I	Chap-1,2
Half Yearly Exam	Chap-1 to 4,Chap-8
Pre board Exam	Full Syllabus

Evaluation scheme for Practical Exam
Time : 3 hours   Marks : 30
1. Volumetric analysis   = 08marks
2. Salt analysis   = 08 marks
3. Content based experiments = 06marks
4. Class record and Viva   = 08marks
Total   = 30 marks

D.A.V. PUBLIC SCHOOL PUNE
SUBJECT: ENGLISH (2023-24)

STD: XI

MONTH & NO OF DAYS	UNIT/CONTENT	LEARNING OUTCOMES	ASSIGNMENTS OR ACTIVITIES	VALUES/SKILLS
APRIL 14 DAYS	**Hornbill –** 1.The Portrait of a Lady 1. A Photograph(poem) **Conversation Skills** Group Discussion: importance of language Listening comprehension	• Understanding Khushwant Singh's relationship with his grandmother. • Poet's feelings for her mother. • Clear, logical thinking, assessing problems, analyzing.	• Collect information about Khushwant Singh and his other works. • How does the poet describe her feelings for her mother? • Write a short paragraph on fulfilling wishes. • Group presentation on given topics.	• The importance of family and relationships. • Using grammatically correct sentences in conversation

JUNE 19 DAYS	**Snapshots-** 1.The Summer of the Beautiful White Horse	• Difference between ethics & obligations.	Character sketches	• Integrity and commitment. • To enhance creative writing skills.
	Writing Skills: Poster	• Draft posters	• Draft poster on child labour	
	HORNBILL 2. The Laburnum Top	• Appreciation of various aspects of nature.	• Writing short poems on nature.	. • To appreciate various aspects of nature.
	Grammar Tenses, Error Correction	• Using grammatically correct English in conversation & writing.	• Editing exercises	• Using grammatically correct English in conversation & writing
	Conversation Skills Group Discussion :GST	• Presence of mind. Thinking on one's feet, analyzing, presenting ideas	• GD's on given topics.	

JULY26 22DAYS	**Writing Skills :** NOTE MAKING **Hornbill –** 2.We're not afraid to die.. if we can all be together 3.Discovering Tut: The Saga Continues **I UNIT TEST**	• Learn how to make notes with the help of bullets, heading and subheading • Importance of togetherness & unity in a family • Learning the secrets of Tutankhamen's tomb	• Writing summary • Collect information about sea voyages in the Indian Ocean, a yacht, & sailing jargon. • Collect pictures & information about other pyramids and tombs.	• Make notes of paragraph given • Family unity, co-operation. • Futility of funerary treasure & rituals.

AUGUST 23 DAYS	**Snapshots** – 2.The Address **Writing Skills** DEBATE. **Grammar** Reordering of sentences	• Effect of human greed & lack of compassion • Practice sessions • Using grammatically correct English in conversation & writing.	• Write a paragraph on the effects of the WWII • Group discussion and guided speeches • Worksheet	• Greed & covetousness make one heartless • Importance of sharing happiness • Interpersonal relations
	Advertisements- for sale/purchase/to let/situation vacant/situation wanted	• Students realize the importance of reading and analyzing long text. Using grammatically correct English in conversation & writing	• Collection of advertisements from newspaper • How to make appropriate advertisements	• Worksheet • . Worksheet
		•		
SEPTEMBER 21 DAYS	**Writing Skills** : SPEECH **Assessment of listening and speaking skill** **REVISION TERMINAL EXAMS**	• Using grammatically correct English in conversation & writing.	• Speech on G20	• worksheet • Enhancement of speaking skills

OCTOBER 22 DAYS	**Hornbill** – 3 The Voice of the Rain **Snapshots** – 4. Mother's Day(Play) 4.Childhood(poem **Grammar:** CLAUSES	• Appreciation of various aspects of nature • Feminism and feminist writing. • Realization of adulthood • Using grammatically correct English in conversation & writing	• Writing short poems on nature Collect other feminist pieces of writing • Problems faced by women especially mothers or housewives • Write a paragraph on aspects of childhood • Transformation of exercise	• To appreciate various aspects of nature • Value of understanding to overcome the generation gap. • Realization of the hypocritical world • worksheet

	Hornbill – 5.Father to Son (Poem) **Writing Skills** : Advertisement **Conversation Skills** Hazards of Selfie	• Presence of mind. Thinking on one's feet, analyzing, presenting ideas. • Able to write advertisements • Generation gap & its effect • Presence of mind. Thinking on one's feet, analyzing, presenting ideas. •	• Group Discussion • Imagine what the son feels about the father & vice versa & write two paragraphs. • Read the newspaper and get cuttings of various advertisements • Art of speaking	•
NOVEMBER 15DAYS	**Snapshots** 8.The Tale of Melon City(Poem) **Snapshots** – 7.Birth **Hornbill** 7.The Adventure	• Hum our, dramatic irony, satire • The problems of childbirth & importance of life • Ways to tackle adventure hazards • Presence of mind. Thinking on one's feet, analyzing, presenting ideas.	• Find other humorous poems • Andrew Manson's feelings of elation and the reasons Recount any *adventurous trip* • Group discussion and guided	The Tale of Melon City ,Vikram Seth lampoons' the eccentric and idiotic governance that is thrust on people sometimes • Value of not mixing professional and personal life • A single event may

				change the course of a nation
	Conversation Skill Extempore Speech		speeches	
DECEMBER-19 DAYS	**Hornbill** 8.Silk Road **Conversation Skill** Extempore Speech	• To chronically arrange the challenges and hardships the author faces in the Silk Road regions. • Presence of mind. Thinking on one's feet, analyzing, presenting ideas.	• The reader finds it refreshing to traverse such vast tracts of physical geography, expanses of the natural world that remain largely untamed. • Group discussion	• Positive thinking strategy helps one a lot
JANUARY 23 DAYS	**Assessment of listening and speaking skill**	• Students realize the importance of reading and analyzing long text.	• Group discussion and guided speeches • Reading the text and referring to other material related to it	• To improve communication skills.
FEBRUARY 23DAYS	Correction and Rectification of mistakes Revision for Second Semester Exam			
MARCH 22 DAYS	Final Exams			

UNIT TEST SYLLABUS

Sec A-Reading Skills-Comprehension Note making	Sec B-Writing Skills- Poster, Speech Grammar-Tenses, Editing	Sec C-Literature- Hornbill-Prose -1,2 Poem -1,3 Snapshots-L-1,2

FIRST TERMINAL SYLLABUS

Sec A-Reading Skills- Comprehension, Note making	Sec B-Writing Skills- Advertisement Poster, Speech, Debate Grammar- Tenses, Reordering of sentences	Sec C-Literature- Hornbill-Prose -1to3,Poem -1,2 Snapshots-Prose-1&2

PREBOARD---- FULL SYLLABUS

Syllabus (2023-24))
Subject: (Business Studies)
STD-XI

Month and days available for teaching	Unit / Content PART-I FOUNDATION OF BUSINESS	Learning outcome	Assignment/Activities	Human Values/Skills
APRIL 14 Days	**Unit-1** <u>**Evolution and Fundamentals of Business**</u> **History of Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporations, Major Trade Centers, Major Imports and Exports, Position of Indian sub-continent in the world economy**	**After doing this unit, students would able to know the History of Commerce in India.**	**Collecting extra information about Commerce.**	**Developing skills**
	• **Concepts and characteristics of business.** • **Business, profession and employment-Meaning and their distinctive features.** • **Objectives of business- Economic and social, role of profit in business.** • **Classification of business activities: Industry and Commerce.** • **Industry- types: primary, secondary, tertiary Meaning and subgroups** • **Commerce-trade: (types-internal, external; wholesale and retail) and auxiliaries to trade;(banking, insurance, transportation, warehousing, communication and advertising)- meaning** • **Business risks- Concept**	**Making student aware about the term business, business activities.** **Making them aware about trade and aids to trade.** **Making them know about different types of risks causes of it.**	**Collecting information about different types of different activities.** **Collecting information about different types of risk.** **Asking them to solve work-sheet-1.**	**Developing informative skill.**

JUNE **19 Days**	**Unit-2** **Forms of business organization.** • **Introduction of sole proprietorship,(merits and demerits)** • **Hindu Undivided Family Business-Concept** • **Cooperative societies- Concept, merits and limitations** • **Partnership (Concept, types, merits, limitation of partnership, registration of a partnership firm, partnership deed. Types of partners** • **Company- Concept, merits and limitations.** • **Types: Private, Public and One person Company- Concept** • **Formation of company- stages, important documents to be used in formation of a company** • **Choice of form of organization.**	**Knowing about the different types of organization with it's merits and demerits.** **Making them aware about the correct choice of organization.**	**Collecting the information of different forms of organization.** **Solving work-sheet-2.**	**Comparative skill.**
JULY **24 Days**	**Unit-3** **Private, public and global enterprise.** • **Public sector and private sector, enterprises-Concept** • **Forms of public sector enterprises: features, merits and limitations of Departmental undertakings, Statutory corporation and Government Company** • **Global enterprises-Feature Joint Venture. Public Private Partnership concept**	**Making them learn about public and private sector.** **Making them aware about the forms of public sector and Joint Venture**	**Asking them to collect information about public sector enterprise.** **Asking them to solve work-sheet-3**	**Comparative skills**

AUGUST 23 Days	**Unit-4** <u>**Business services.**</u> • **Business- meaning and types.** • **Banking-types of bank accounts- saving, current, recurring, fixed deposit, and multiple option deposit account.** • **Banking services with reference to bank Overdraft, Cash credit.** • **E-Banking meaning, Types of digital payments** • **Insurance -Principles. Types- life, health, fire and marine insurance- concept** • **Postal services- Mail, Registered Post, Parcel, Speed Post, Courier- meaning**	**Giving them knowledge about insurance, types, principles.** **Making them aware about banking services.**	**Asking them to visit different banks and insurance companies and collect information.** **Asking them to solve work-sheet 4.**	**Analytical skill.**
SEPTEMBER 21 Days	**Unit-5** <u>**Emerging modes of business.**</u> • **E-business: concept, scope and benefits.**	**Making them aware about new modes of business.** **Giving them knowledge about outsourcing as a new mode of business.**	**Asking them to get information about new outsourcing businesses.** **Asking them to solve work-sheet 5.**	**Informative skill.**
	Revision Term-1 **Unit-6** <u>**Social responsibilities of business and business ethics.**</u> • **Concept of social responsibility** • **Kinds of it towards 'different interest groups' – owners, investors, consumers employees, government and community.** • **Role of business in environment protection** • **Business ethics- Concept and Elements.**	**Making them aware about their social responsibility as citizen and businessman, need to protect our environment.**	**Asking them to do activities to protect environment.** **Asking them to complete work-sheet 6.**	**Sensitivity towards environment.**

OCTOBER 22 Days	**Project of 20 marks will be given before 'Diwali Vacation'.** **Topics will be given in the class.** **PART-II: FINANCE AND TRADE.** **Unit-7** Sources of business finance. **Concept of business finance- Introduction, meaning, significance of business finance.** **Owner's fund- equity shares, preference shares, retained earnings.** **Borrowed funds- debentures and bonds, loans from financial institutions, commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD).**	**Giving the information of different sources of finance.**	**Asking them to complete worksheet 7 discussed in the class.**	**Analytical skill.**
NOVEMBER 15 Days	**Unit-8** Small business. **Entrepreneurship Development (ED) Concept, characteristics and Need** **Process Entrepreneurship Development: start up in India Scheme, ways to funds start up Intellectual Property Rights and Entrepreneurship.** **Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act).** **Role of small business in India with special reference to rural areas** **Government schemes and agencies for small scale industries: National Small Industries Corporation (NSIC) and District Industrial Center (DIC) with special reference to rural,**	**After going through this unit, the would be able to: Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights.** **Making them aware about the condition of small business in India. Giving information about rural small business.**	**Asking them to get Additional information about sources of finance. Complete work-sheet 8.** **Asking them to collect the information about prospects of small business. Complete work-sheet 9 discussed in the class.**	**Developing knowledge.** **Developing knowledge.** **Sensitivity towards rural development.**

DECEMBER 19 Days	**backward area.** **Unit-9** <u>**Internal trade.**</u> • **Internal trade- meaning and types, services rendered by a wholesaler and retailer.** • **Types of retail trade – Itinerant and small-scale fixed shops retailers.** • **Large scale retailers – Departmental stores, Chain stores- Concepts** • **GST (Goods and Services Tax): Concept and key-features.**	**Making them aware about whole sale trade, retail trade their types.** **Understanding the concept of GST**		**Developing knowledge. Comparative skill.**
JANUARY 23 Days	**Unit-10** <u>**International Trade.**</u> • **Concept and benefits** • **Export Trade- Meaning and procedure** • **Import Trade- Meaning and procedure**	**Giving students knowledge about international business, it's Types.** **Giving students information about different institutions like IMF, WTO .**	**Asking them to get additional information about different types.** **Complete work-sheet -11 and 12.** **Asking them to collect additional information about different international organization.**	

Examwise Portion:

<table>
<tr><td>**UT1**</td><td>**Term 1**</td><td>**Prelim**</td></tr>
<tr><td>**Unit-1 Nature and Purpose of Business**</td><td>**Chapter 1-6**</td><td>**Full Part 1 and Part 2**</td></tr>
<tr><td>**Unit -2 Forms of business organization**</td><td></td><td></td></tr>
<tr><td>**Unit-3 Private, Public and Global enterprise**</td><td></td><td></td></tr>
</table>

Final Exam Weightage

Theory = 80 marks.
Project = 20 marks.
Total = 100 marks.

BLUE PRINT

Unit	Title	Marks
1	**Nature and Purpose of Business**	**16**
2	**Forms of Business Organization**	
3	**Private, Public & Global Enterprises**	**14**
4	**Business Services**	
5	**Emerging modes of Business**	**10**
6	**Social Responsibility of Business & Business Ethics**	
7	**Sources of Business Finance**	**20**
8	**Small Business**	
9	**Internal Trade**	**20**
10	**International Business**	
	TOTAL	**90**
	PROJECT WORK (One)	**10**
	TOTAL	**100**

x---------------x

D.A.V.PUBLIC SCHOOL, AUNDH , PUNE

Std: XI   **Subject: Economics (2023-24)**

Month and days available for teaching	Unit / Content PART-I	Learning outcome	Assignment/Activities	Human Values/Skills
APRIL 14 Days	**PART-I STATISTICS FOR ECONOMICS.** **Unit-1** <u>**Introduction.**</u> **What is economics?** **Meaning, scope, functions and importance of statistics in Economics.**	**Making students aware about subject matter of economics.**	**Asking them to find out activities related to economics in our day to day life.**	**Skill of collecting information.**
APRIL 14 Days **JUNE 19 Days**	**Unit-2** <u>**Collection, organization and presentation of data.**</u> <u>**Collection of data**</u>**-sources of data- Primary secondary data; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data; Census of India and National Sample Survey Organization** <u>**Organization of data:**</u> **Meaning, types of variables, frequency distribution.** <u>**Presentation of data: Tabular Presentation and Diagrammatic Presentation of Data:**</u> **i) Geometric form(bar diagram and pie diagrams), b) Frequency diagrams (histogram, polygon and ogive) c) Arithmetic line graphs (time series graph).**	**Making the students aware about different methods of collecting data.**	**Asking them to complete work-sheet 1 and 2 discussed in the class.**	**Numerical skill.**
JULY 24 Days **AUGUST 23 Days**	**Unit-3** <u>**Statistical tool and interpretation.**</u> <u>**Measures of central tendency**</u>**-Mean, median and mode** **Correlation: Meaning and properties, scatter diagram; Measures of correlation-Karl Pearson's method (two variables ungrouped data), Spearman's rank correlation (Non-repeated ranks and**	**Different methods ofcentral tendency.**	**Complete work-sheet 3**	**Numerical skill.**

SEPTEMBER 21 Days	**Repeated ranks)** **Introduction to index Numbers: Meaning, types- Wholesale price index, consumer price index of index of industrial production, uses of index numbers; inflation and index numbers.** **Simple Aggregative Method.** **Project will be given before Diwali vacation.** **Topics will be given in the class.**			**Developing their curious thinking.**
OCTOBER 22 Days	**PART_I MICRO ECONOMICS.** **Unit-1** **Introduction.** **Meaning of micro and macro economics, positive and normative economics.** **What is an economy? Central problems of an economy; what, how and for whom to produce; concepts of production possibility frontier and Opportunity cost**	**To know about basic concept of economy and basic economic activities.**	**To collect the information about different economic activities.** **Complete work-sheet 1 discussed in the class.**	**Collecting information in detail.**

OCTOBER 22 Days	Unit-2 <u>Consumer Equilibrium and Demand.</u> Consumer's equilibrium- meaning of utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis. Indifferent curve analysis of consumer's equilibrium- the consumer's budget (budget set and budget line), preferences of consumer (indifference curve, indifference map) and conditions of consumer's equilibrium. Demand, market demand, determinants of demand, demand schedule, demand curve, movement along and shifts in demand curve; price elasticity of demand- factors affecting price elasticity of demand; measurement of price elasticity of demand- a)percentage- change method and total expenditure method.	To know about the basic concept of demand and verifying the different examples.	To collect the examples related to law of demand. Complete worksheet 2.	Thinking process.
NOVEMBER 15 Days	Unit-3 <u>Producer Behavior and Supply.</u> Production function: Short- run and Long-run. Total Product, Average Product and Marginal Product. Returns to Factor. Cost and Revenue: Short run cost- meaning and their relationship. Revenue- total, average and marginal revenue. Producer's equilibrium- meaning and it's conditions in terms of marginal revenue- marginal cost. Supply, market supply, determinants of supply, supply schedule, supply curve, movements along and shifts in supply curve, price elasticity of supply- a)	To know about different examples to verify the law. To know about the main concept of supply with an example.	To collect the examples related to law. To complete work-sheet-3	Application skill.

| DECEMBER 19 Days | percentage- change method.

Unit-4
<u>**Forms of Market and Price Determination under Perfect Competition with simple application.**</u>
Perfect competition- Features;
Determination of market equilibrium and effects of shift in demand and supply.(Short Run Only)
Simple Applications of demand and Supply; Price ceiling, price floor. | **To know about commodity and non-competitive market.**
To understand an application of demand and supply. | **To complete the work-sheet 4.** | **Comparative skill.** |

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Units	Title	Marks
1.	Introduction	4
2.	Consumer's Equilibrium and Demand	14
3.	Producer's Behavior and Supply	14
4.	Forms of Market and Price Determination under Perfect Competition with Simple Applications	8
	Total---	40
Part B	Statistics for Economics	
1	Introduction	15
2	Collection, Organization& Presentation	
3	Statistical Tools & Interpretation	25
	Total	80

Blue-Print

UT1: a) Introduction   b) Collection of data
c) Organization of data   d) Presentation of data

TERM 1: Part A: Statistics for Economics

PRELIM 1 : Part A : Introductory Micro Economics

Part B : Statistics for Economics
x--------------x

D.A.V.PUBLIC SCHOOL, PUNE
MONTHLY SYLLABUS FOR CLASS – XI (2023-24)
SUBJECT:-MATHEMATICS

Months And Days Available For Teaching	Unit / Lesson /Content	Learning Outcome	Assignments / Activities	Values/ Skills
APRIL -14 days.	**UNIT I** **Sets and Functions** Sets,Sub-sets, Power set, Venn diagram, Operation on Sets-Union, Intersection, Difference of sets, Complement of a set and its properties. **Relations & Functions-** Cartesian product of sets, Relations, Functions, Domain , co- domain and range. Real functions, Algebra of real functions.	Students study some basic definitions and operations involved in Sets. The knowledge of Sets is required in the study of geometry, sequences, probability etc. Students study about relations and functions.	Learning basic definitions. Practical problems on Union and Intersection. Finding Domain and Range of functions. Preparing chart to represent relations and functions graphically.	Students learn to apply the knowledge of sets in geometry ,sequences , probability etc.
JUNE –19 days.	**UNIT I** **Trigonometric Functions** Measurement,conversions, Trigonometric Functions and their graphs, Trigonometric functions of Sum and Difference of two angles. **Complex numbers :** Need for Complex numbers, Complex number form, Algebraic properties of complex numbers, Argand Plane	Students study to generalize the concepts of trigonometric ratios to trigonometric functions and study the properties. Trigonometry is used in seismology, designing electric circuit, predicting the heights of tides etc. Students study complex numbers and Argand plane.	Solving trigonometric equations and applying laws of sines and cosines to prove the results. Preparing models to show the graph of sin,cos,tan functions. Finding modulus and conjugate of a complex number.	Students learn to apply trigonometric functions in designing electric circuit, predicting height of tides etc. Students learn to find modulus, conjugate.

JULY - 24 days	**UNIT II** **Permutations and Combinations** Fundamental principle of counting, Factorial, Permutations,Combinations-Simple applications **UNIT II** **Linear Inequalities** Algebraic solution of Linear inequalities in one variable and their representation on the number line **UNIT TEST**	. The concept of permutations and combinations is used in studying astronomy. Students study some basic counting techniques and number of different ways of selecting objects The study of inequalities is useful in solving optimization problems in the field of statistics , economics etc.	Finding no. of permutations and combinations for the given problems. Finding Graphical solution of linear inequalities in one variable.	Students try to apply permutations in practical life such as opening a number lock and making code numbers etc. Students learn to apply concept of Linear inequalities in optimization problems.
AUGUST –23 days	**Unit II (ALGEBRA):** **Sequence and Series** : Arithmetic Mean(A.M.), Geometric progression (G.P.) Relation between A.M and G.M., General Term, Sum of n terms of G.P., Infinite G.P. and its sum, G.M. , Relation between A.M and G.M.	Students study the concept of G.P,A.M,G.M and relation between them. Sequences have important applications in several spheres of human activities.	. Finding nth term and sum of n terms in G.P. and also Sum to Infinity of a G.P.	Students learn to apply the concept of G.P in various problems.

AUGUST –23 days	**Binomial theorem** Statement and proof Binomial theorem for +ve Integer n – Special Cases – general and middle Terms, Pascal's triangle and Simple applications.	Students study Binomial theorem and its application.	Finding general and middle terms of Binomial Theorem. Preparing a model on Pascal's triangle	Students learn to apply Binomial Theorem in various problems.
SEPTEMBER -21 days	**UNIT III** **Co-ordinate Geometry Straight Lines-** Slope of line, Angle between two lines. Co-linearity, various forms of equations of a straight line, Distance of a point from a line.	Students study various representations of lines algebraically for which slope is most essential	Learning different forms of equations of straight line according to given data	Students learn to write different forms of straight line.
OCTOBER – 22 DAYS	**UNIT IV-Calculus** **Limits and derivatives-** Algebra of limits-Limits of Trigonometric functions and some other important limits. Derivatives- Algebra of derivatives of functions	Calculus is used in many other subjects such as physics, chemistry, economics and biological sciences.	Finding derivatives of the functions.	Students learn to apply calculus in physics, chemistry, economics, etc.

OCTOBER – 22 DAYS	**UNIT III** **Conic Sections-** Sections of a Cone:-Circle, Parabola, Ellipse, hyperbola.	The conics is used in various fields such as planetary motion , design of telescopes and antennas etc.	Deriving the equations of conics.	Students learn to apply the concept of conics in planetary motion and design of telescopes etc
NOVEMBER -15 days	**Introduction to 3D-Geometry –** Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.	Students study the basic concepts of Geometry in 3D.	Finding distance between two points.	
	UNIT VI **Statistics-** Measures of Dispersion Variance and Standard Deviation of ungrouped/grouped data.	Students study some important measures of dispersion and their methods of calculations. The study of statistics is applied to various fields such as genetics, biometry, agriculture etc	Finding Mean Deviation, Standard Deviation and Variance.	Students try to apply the concepts of statistics in real life problems.

DECEMBER -19 days	**UNIT VI** **Probability-** Random Experiments – Algebra of Events, Axiomatic Approach to Probability.	Students learn to calculate the probability of various events.	Learning the definition of various types of events.	Students try to apply the concepts of probability in real life problems.
JANUARY- 23 days	**Revision + Preboard**	.		
February – 23 days	**Final Board Exam**			

Syllabus for UT:
Chapter 1 : Sets
Chapter 2: Relations and functions
Chapter 3: Trigonometric functions
Chapter 5: Complex numbers

Syllabus for Term 1:
Chapter 1 : Sets
Chapter 2: Relations and functions
Chapter 3: Trigonometric functions
Chapter 5: Complex numbers
Chapter 6: linear Inequalities
Chapter7: Permutation and Combination
Chapter8: Binomial Theorem
Final exam: Full portion

Theory - **80** marks

Internal assessment	**20** marks
Periodic tests (best 2 out of 3	10 marks
Mathematics activities	10 marks

D.A.V. PUBLIC SCHOOL, PUNE
SUB:- APPLIED MATHEMATICS (2023-2024)

Months And Days Available For Teaching	Unit / Lesson /Content	Learning Outcome	Assignments / Activities	Values/ Skills
APR- 14 days	**UNIT II : ALGEBRA :** **SETS:** **Introduction to sets – definition, Representation of sets, Types of sets and their notations, Subsets, Intervals, Venn diagrams, Operations on sets** **Ordered pairs , Cartesian product of two sets, Relations, Domain and range of a relation.**	**Students study some basic definitions and operations involve in Sets and also study about relations, domain and range of a relation.**	**Practical problems on Union and Intersection.**	**Students learn to apply the knowledge of sets in geometry ,sequences , probability etc**
JUNE -19 days	**UNIT I: NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS** **Binary Numbers, Indices, Logarithm and Antilogarithm, Laws and properties of logarithms, Simple applications of logarithm and antilogarithm** **Averages, Clock**	**Students learn to** **● Express decimal numbers in binary system , Express binary numbers in decimal system** **● Relate indices and logarithm /antilogarithm , Find logarithm and antilogarithms of given number** **● Enlist the laws and properties of logarithms ,Apply laws of logarithm**	**Definition of number system (decimal and binary) , Conversion from decimal to binary system and vice – versa** **Fundamental laws of logarithm**	**Students learn to apply rules of indices** **Students learn to Express the problem in the form of an equation and apply logarithm/ antilogarithm**

AUGUST - 23 days.	**Unit – III** **MATHEMATICAL REASONING:** **Logical reasoning** **UNIT – IV: CALCULUS:** **Functions, Domain and Range of a function, Types of functions, Graphical representation of functions** **UNIT-VI:** **DESCRIPTIVE STATISTICS** **Data Interpretation: Measure of Dispersion, Skewness and Kurtosis,**	Students study to Solve logical problems involving odd man out, syllogism, blood relation and coding decoding Define various types of functions, Identify domain,	Odd man out ● Syllogism ● Blood relations ● Coding Decoding **Finding Domain and Range of functions** **Preparing chart to represent relations and functions graphically** **Interpret Skewness and Kurtosis of a frequency distribution by plotting the graph**	**Visualization of graphical representation of data using Excel Spreadsheet or any other computer assisted tool**
JULY - 24 days.	**UNIT I** **Calendar, Time, Work and Distance, Mensuration, Seating arrangement** **Sequence and Series, Arithmetic Progression, Geometric Progression, Applications of AP and GP.** **UNIT TEST**	**Determine Odd days in a month/ year/ century, relationship between work and time ,Compare the work done by the individual / group w.r.t. time , surface area and volume of 2D and 3D shapes. Create suitable seating plan/ draft as per given conditions (Linear/circular)** **Students study the concept of A.P-G.P ,A.M ,G.M and relation between them.**	**Decode the day for the given date,Calculate the time taken/ distance covered/ Work done from the given data.Calculate the volume/ surface area for solid formed using two or more shapes** **Locate the position of a person in a seating arrangement** **Practical problems on Union and Intersection.**	**Students learn to find Odd days in a year/ century, Day corresponding to a given date Transforming one solid shape to another Position of a person in a seating arrangement.**

SEPTEMBER - 21 days	**UNIT – VI Contd..** **DESCRIPTIVE STATISTICS:** **Percentile rank and Quartile rank, Correlation** **REVISION** **TERM I EXAM**	**Students study to differentiate between range, quartile deviation, mean deviation and standard deviation** **Interpret the coefficient of correlation**	**Calculate and interpret Percentile and Quartile rank of scores in a given data set,**	
OCTOBER-22 days	**UNIT II : ALGEBRA(CONTD..)** **Permutations and Combinations:** **Factorial, Fundamental Principle of Counting, Permutations, Combinations** **UNIT – IV: CALCULUS(CONTD..)** **Concepts of limits and continuity of a function, Instantaneous rate of change, Differentiation as a process of finding derivative, Derivatives of algebraic functions using Chain Rule**	**The concept of permutations and combinations is used in studying astronomy.** **Calculus is used in many other subjects such as physics chemistry, economics and biological sciences.**	**Finding no of permutations and combinations for the given problems.** **Finding derivatives of the functions.**	**Students try to apply permutations in practical life such as opening a number lock and making code numbers etc.** **Students learn to apply calculus in physics, chemistry, economics, etc**

NOVEMBER - 15 days	UNIT V: PROBABILITY Introduction, Random experiment and sample space, Event, Conditional Probability, Total Probability, Bayes' Theorem, UNIT VII: FINANCIAL MATHEMATICS Interest and Interest Rates, Accumulation with simple and compound interest, Simple and compound interest rates with equivalency, Effective rate of interest, Present value, net present value and future value, Annuities, Calculating value of Regular Annuity, Simple applications of regular annuities (upto 3 period), Tax, calculation of tax, simple applications of tax calculation in Goods and service tax, Income Tax, Bills, tariff rates, fixed charge, surcharge, service charge, Calculation and interpretation of electricity bill, water supply bill and other supply bills	Apply reasoning skills to solve problems based on conditional probability, Interpret mathematical information and identify situations when to apply total probability , Solve problems based on, application of total probability Explain the concept of Immediate Annuity, Annuity due and Deferred Annuity , Explain fundamentals of taxation, Describe the meaning of bills and its various types,	Define an event Recognize and differentiate different types of events and find their probabilities, Solve practical problems based on Bayes' Theorem To interpret and analyze electricity bills, water bills and other supply bills Evaluate how to calculate units consumed under electricity bills/water bill	Students try to apply the concepts of probability in real life problems. Apply the concept of Annuity in real life situations Computation of income tax Add Income from Salary, house property, business or profession, capital gain, other sources, etc. Less deductions PF, PPF, LIC, Housing loan, FD, NSC etc.
DECEMBER - 19 days	UNIT VIII : COORDINATE GEOMETRY Straight line, Circle, Parabola	Find the slope and equation of line in various form, Solve problems based on applications of circle, Define parabola and related terms	Application in parabolic reflector, beam supported by wires at the end of the support, girder of a railway bridge, etc.	Students learn to apply straight line in demand curve related to economics problems
JANUARY – 23 days	Revision +PRE BOARD EXAM			
FEBRUARY – 23 days	FINAL EXAM			

Syllabus for UT:
Chapter 1: Numbers
chapter 2: Indices and Logarithms
Chapter 3 : Quantitative Aptitude
Chapter 5: Sets and Relations

Syllabus for Term 1:
Chapter 1: Numbers
Chapter 2: Indices and Logarithms
Chapter 3 : Quantitative Aptitude
Chapter 4: Mensuration

Chapter 5: Sets and Relations
Chapter 6: Sequences and series
Chapter 8: Mathematical Reasoning
Chapter 9: Functions
Chapter 13: Descriptive Statistics

Syllabus for Term 2:
Chapter 1: Numbers
chapter 2: Indices and Logarithms
Chapter 3 : Quantitative Aptitude
Chapter 4: Mensuration
Chapter 5: Sets and Relations
Chapter 6: Sequences and series
Chapter 7: Permutations and Combinations
Chapter 8: Mathematical Reasoning
Chapter 9: Functions
Chapter 10 : Limits and Continuity
Chapter 11: Differentiation
Chapter 12: Probability
Chapter 13: Descriptive Statistics
Chapter 14: Compound Interest and Annuity
Chapter 15: Taxation
Chapter 16: Utility Bills
Chapter 17: Straight Line
Chapter 18: Circle and Parabola

Unitwise weightage of marks:

Unit		Marks
Unit I : Numbers, Quantification and and Numerical applications		**09**
Unit II: Algebra		**15**
Unit III: Mathematical Reasoning		**06**
Unit IV: Calculus		**10**
Unit V: Probability		**08**
Unit VI: Descriptive Statistics		**12**
Unit VII: Basics of Financial Mathematics		**15**
Unit VIII:Coordinate Geometry		**05**

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Final Exam :
Theory   : 80 marks
Internal assessment : 20 marks

Total :   100 marks