ST. COLUMBA'S SCHOOL
CONTINUOUS LEARNING PLAN
CLASS XI 2020-2021

SUBJECT - PHYSICS

LEARNING OUTCOMES

Students will be able to

1. Understand the basic concepts
2. Apply the concepts taught in solving numerical problems
3. Apply the concepts in solving conceptual questions
4. Recognize importance of physics in real life situations
5. Solve higher order thinking skill questions

APRIL	MAY
Chapter's name: Units and Measurement **Contents: Units of measurements, fundamental and derived units, SI units, errors in measurements, significant figures, Dimensions of physical quantities, dimensional analysis and its applications.** **Learners will be able to understand Scope and application of Physics for the betterment of society. Learners will be able to understand the Need of measurement along with basics of fundamental and derived units. Learners will be able to understand the significance and importance of dimensional analysis of any physical quantity**	**Chapter's name: Motion in a straight line** **Contents: Position-time graph, speed and velocity. Uniform and non uniform motion, Average speed and instantaneous velocity. Uniformly accelerated motion, velocity- time, position- time graphs, relations for uniformly accelerated motion (algebraic, graphical and calculas method). Elementary concepts of differentiation and integration for describing motion.** **Learners will be able to understand the term motion as a relative term and classification of motion. Learners will be able to understand the significance of three equations of motion in our daily life along with it mathematical calculus analysis.**
JULY	**AUGUST**
Chapter's name: Motion in a plane: **Scalar and vector quantities, position and displacement vectors, addition and subtraction of vectors, multiplication of vectors by a real number, relative velocity, Unit vector, Resolution of a vector in a plane, Rectangular components, Dot and cross product of vectors. Projectile motion and uniform circular motion.** **Learners will be able to understand basics of Scalar and Vector quantities along with its Mathematical analysis (Addition, subtraction, Product, Resolution, Projection) Learners will be able to understand the concept of Projectile and it mathematical analysis (Parabolic path, Maximum height attained, Range, Time of flight, Resultant velocity)**	**Chapter's name: Work, power and energy** **Contents: Work done by a constant and variable force, kinetic energy, work- energy theorem and power. Potential energy, Gravitational and elastic potential energy, conservative and non conservative forces, conservation of mechanical energies, Elastic and inelastic collision.** **Learners will be able to understand the Basic concept of work done along with its mathematical analysis and Classification of work. Learners will be able to understand the Concept of mechanical energy, different forms energy and its conservation with necessary mathematical analysis. Learners will be able to understand the Mechanical power along with its Practical and SI**

Chapter's name: Laws of motion **Contents: Newton's laws, momentum, Impulse, law of conservation of linear momentum, equilibrium of concurrent forces, static and kinetic friction, laws of friction, rolling friction, dynamics of circular motion, centripetal force, examples of circular motion: vehicles on level circular road, banked road. Learners will be able to understand the Concept of force along all the three Newton's laws of motion. Learners will be able to understand the Concept of concurrent forces and dynamics of circular motion**	**units.** **Chapter's name: Gravitation** **Contents: Universal law of gravitation, acceleration due to gravity and it's variation with altitude and depth. Gravitational potential and potential energy, escape velocity, motion and types of satellites, Kepler's laws.** **Learners will be able to understand Concept of gravitational force between two bodies and its conservative nature. Learners will be able to understand the Concept of variation of acceleration due to gravity with height and depth.**
SEPTEMBER **Revision**	**OCTOBER** **Chapter's name: system of particles and rotational motion** **Contents: Centre of mass of a two particle system, equations of rotational motion. Learners will be able to understand the concept of centre of mass and centre of gravity of a body. Learners will be able to understand the Concept of Rotational Dynamics and equations of motion for rotating body. Learners will be able to understand the Analogy between Kinematics and Rotational Dynamics.**
NOVEMBER **Chapter's name: Rotational motion (continued)** **Contents: Rotational K.E, torque, angular momentum, moment of inertia, law of conservation of angular momentum, pure rolling motion on an inclined plane.** **Learners will be able to clear the concept of different parameters of rotating body (Torque, Angular momentum, moment of inertia) and applying different theorems to find the moment of inertia of simple geometrical objects.**	**DECEMBER** **Chapter's name: Properties of solids** **Contents: elasticity, stress, strain, elastic modulus, Hooke's law.** **Learners will be able to understand Practicality of different types of Elastic modulli and Relation between stress and strain.** **Chapter's name: Properties of liquids** **Contents: surface tension, viscosity, streamline and turbulent motion, equation of continuity and Bernoullie's theorem. Learners will be able to understand Practicality of Fluid dynamics in real life (Pascal's Law, Bernoulli's theorem, Magnus Effect) Learners will be able to understand Concept of surface Tension and Surface energy and will be able to relate it with a daily life.**
JANUARY **Chapter's name: Oscillation and waves** **Contents: Simple harmonic motion, it's equation and application in simple pendulum and spring. Forced and damped oscillation and resonance.** **Wave motion, Transverse and longitudinal waves, displacement equation of progressive waves, Principle of superposition of waves, stationary**	**FEBRUARY** **Chapter's name: Heat and thermodynamics** **Contents: Zeroth law and first law of thermodynamics, applications of first law, isothermal and adiabatic process, second law of thermodynamics, heat engine and refrigerator.** **Learners will be able to understand the Concept of Heat, work and Internal energy of the system.**

waves. **Learners will be able to understand the basic concept of generation of waves along with its Classification and Mathematical analysis and SHM. Learners will be able to understand the Concept of Different forms of energy possessed by a body executing SHM with its mathematical analysis. Learners will be able to understand the Concept of Resonance, free oscillations** **Learners will be able to understand the Mathematical analysis of waves along its basic parameters (Amplitude , Frequency and Phase)** **Learners will be able to understand the concept of reflection of waves along with concept of harmonics.** **Chapter's name: Thermal properties of matter** **Learners will be able to understand the Different methods of heat transfer, Concept of thermal expansion and Laws of cooling.** **Contents: Thermal expansion, specific heat , latent heat, Transfer of heat- conduction, thermal conductivity, convection and radiation.**	**Learners will be able to understand the Principle of Heat Engine and Refrigerator** **Chapter's name: Kinetic theory of gases** **Learners will be able to understand the Pressure exerted by a gas on the walls of the container.** **Learners will be able to understand the Concept and relation between different specific heat capacities** **Contents: assumptions, concept of pressure and kinetic interpretation of temperature** **Revision**

ASSESSMENT PLANNER

Periodic Test - 1 **40 Marks**	**SYLLABUS** **Motion in a straight line** **Measurement , dimensions and errors**
Periodic Test - 2 **40 Marks**	**SYLLABUS** **Rotational motion** **Properties of Solids**
Half Yearly Exam **Theory / Prac** **70/30** **80/20** **60/40** **Theory** **100 Marks**	**SYLLABUS** **Motion in a straight line** **Motion in a plane** **Measurement , dimensions and errors** **Laws of motion** **Work, power and energy** **Gravitation.**
Annual Exam **Theory / Prac** **70/30** **80/20** **60/40** **Theory** **100 Marks**	**SYLLABUS** **Motion in a straight line,** **Motion in a plane** **Measurement , dimensions and errors** **Laws of motion** **Work, power and energy** **Gravitation.** **Rotational motion** **Properties of solids, properties of liquids, thermal properties of matter** **Oscillation and waves** **Heat and thermodynamics** **Kinetic theory of gases**

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SUBJECT - Chemistry

LEARNING OUTCOMES

- **To promote understanding of basic facts and concepts in chemistry.**
- **Make students capable of studying chemistry in academic and professional courses at tertiary levels.**
- **To expose students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of chemical sciences and technology.**
- **To equip students to face various challenges related to health, nutrition, environment, population, weather, industries and agriculture.**
- **To develop problem solving skills in students.**

- **To expose students to different processes used in industries and their technological applications.**
- **To apprise students with interface of chemistry with other disciplines of science such as physics, biology, geology ets.**
- **To acquaint students with different aspects of chemistry used in daily life.**
- **Integrate life skills and values in context of chemistry.**

APRIL

Some Basic Concepts of Chemistry
SDG – 13 ; 14 & 15

Structure of Atom
SDG- 4

- **To study the various laws of chemical combination**
- **To understand and apply mole concept in solving numericals**
- **Differentiate between empirical formula and molecular formula**
- **to study the various methods to express the concentration of a solution**
- **To study the Rutherford and Bohr's model of Atom and their limitations**
- **differentiate between orbit and orbitals**
- **Study the quantum mechanical model of Atom and the four quantum numbers**
- **To write the electronic configurations of various elements and their ions**
- **to understand the stability of half and fully filled orbitals**

MAY

Classification of elements and periodicity in properties
SDG- 6 ; 10 & 12
Environmental Chemistry (not in Syllabus)
SDG- 13
IUPAC nomenclature of organic compounds.
SDG-4

- **To study the properties of elements in s,p d &f block**
- **To state the modern periodic law and understand the classification of elements in the modern periodic table**
- **to predict the group, period and block of an element in the periodic table**
- **to study the variation of periodic properties like radii, ionisation enthalpy, electron gain enthalpy, electronegativity and metallic properties down the group and across the period**
- **to name the various organic compounds according to the IUPAC nomenclature**
- **to study the harmful effects of pollution on living systems**

JULY

Chemical Bonding and Molecular Structure
SDG- 17

States of Matter
SDG-16

- **to develop understanding about the different types of bonds**
- **to familiarise with the directional properties of covalent bonds and to predict the geometry of molecules using VSEPR theory**
- **To explain the bonding in molecules using valence bond theory and hybridization**

AUGUST

Hydrogen
SDG-6;8 ;9 & 13
The s –block elements SDG-6;8;9 &13

- **To justify the position of hydrogen In the periodic table by comparing its properties with Group 1 and group 17 elements**
- **to study the preparation and properties of it's oxides**
- **to learn the physical and chemical properties of water and it's types**

- To study the factors which help in the formation of an ionic bond
- Define dipole moment and state the Fazan's rule of polarisation
- Understand the formation of coordinate bonds
- to study the types of intermolecular forces - dispersion forces and hydrogen bond and their consequences
- understand the formation of covalent bond using MOT in simple molecules
- to state an understand the significance of various gas laws
- understand the difference between an ideal gas and a real gas using kinetic molecular theory of gases

- To compare the physical and chemical properties of Group One and group 2 elements
- to study the diagonal relationship between lithium - magnesium and beryllium - aluminium
- To study the abnormal behaviour of lithium and beryllium

SEPTEMBER

Thermodynamics

SDG-9 ; 16

- To understand the concept of system and it's types
- To distinguish between intensive and extensive properties
- to study the various types of processes
- understand and apply the various laws of thermodynamics
- to state Hess's law of constant heat summation and it's application
- to define various forms of enthalpies
- To measure the enthalpy change and internal energy change in various processes
- To study the terms- enthalpy, entropy, internal energy, Gibb's free energy and heat capacity

OCTOBER

Thermodynamics (Continued)

- To know the relation between equilibrium constant and Gibb's free energy
- To find the relation between the spontaneity and ^ G

NOVEMBER

Redox Reactions

SDG- 13

- to study the concept of oxidation and reduction, Oxidising agent and reducing agent
- to balance the redox equations using ion- electron method
- find the oxidation state of element in a given species

DECEMBER

Equilibrium

SDG- 3;14 &15

- to study the characteristics of different types of physical equilibria
- to state law of mass action and law of equilibrium
- To study the characteristics of the equilibrium constant
- To state and use the Le Chatelier's principle
- To study the ionic equilibrium,

	pH and ionic and solubility product and apply the concept learnt to solve numericals • **To compare the acidic and basic strength using Ka and Kb along with degree of ionization** • **To understand the function of buffer** • **To learn the significance of common ion effect in cation analysis**
JANUARY **Organic Chemistry (some basic principles and techniques)** **SDG-3;9;12 &16** **Hydrocarbons** **SDG -3;9;12 &16** • **To understand the various electron movement in organic compounds – I, R, M E effects and their applications** • **To study the various types of isomerism in organic compounds** • **To classify and study the various types of reactions in organic chemistry (in detail)** • **To study the various types of bond fission, carbon ions and attacking reagents** • **To learn the preparation, properties and distinguishing tests of different hydrocarbons- alkanes, alkenes, alkynes and aromatic compounds**	**FEBRUARY** **The p – block elements** **SDG-6;8;9 &13** **To study the general trends in the properties of group 13 and 14 elements** **To understand the anomalous behaviour of the first element in a group and inert pair effect** **To study the various forms of carbon and the bonding in them** **To learn about the important compounds of B, C, Si and Al**

ASSESSMENT PLANNER

Periodical Assessment 1 **40 Marks**	**SYLLABUS** **Some Basic Concepts of Chemistry + Atomic Structure + Classification of Elements and Periodicity in properties + IUPAC Nomenclature of Organic Compounds.**
Periodical Assessment 2 **40 Marks**	**SYLLABUS** **Thermodynamics + Redox Reactions + Hydrogen + s – block elements**

Half Yearly Exam **Theory / Prac 70/30**	**SYLLABUS** **Some Basic Concepts of Chemistry + Atomic Structure + Classification of Elements and Periodicity in properties + IUPAC Nomenclature of Organic Compounds + Chemical Bonding and Molecular Structures + States of Matter.** **<u>Practical Syllabus</u>:** **Neutralization Titration and Anion Analysis**
Annual Exam **Theory / Prac 70/30**	**SYLLABUS** **Some Basic Concepts of Chemistry + Atomic Structure + Classification of Elements and Periodicity in properties + Chemical Bonding and Molecular Structures + States of Matter + Thermodynamics + Redox Reactions + Hydrogen +The s – block elements + Equilibrium + The p-block elements +organic chemistry + Hydrocarbons.** **<u>Practical Syllabus</u>:** **Neutralization Titration and Salt Analysis**

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SUBJECT - MATHEMATICS

LEARNING OUTCOMES

On completion of the prescribed CBSE syllabus, the students shall be able to

- **Understand and differentiate between various concepts taught & apply them to solve the problems.**
- **Develop investigative skills & improve their logical and analytical skills**
- **Stimulate the interest among students by going from LOTS to HOTS**
- **Enable them to comprehend, analyze, synthesize, evaluate, and make generalizations so as to solve mathematical problems.**
- **Co-relate mathematics into their lives outside the school i.e. at home and in community**
- **Generate new knowledge with the information imparted**
- **Develop a positive attitude towards learning Mathematics**
- **Help them recognize the importance of mathematics for future professional courses.**
- **Perform mathematical operations and manipulations with confidence, speed and accuracy**
- **Think and reason precisely, logically and critically in any given situation & communicate mathematical ideas**
- **Identify, concretize, symbolize and use mathematical relationships in everyday life**
- **Collect, organize, represent, analyze, interpret data and make conclusions and predictions from its results.**
- **Apply mathematical knowledge and skills to familiar and unfamiliar situations**
- **Develop willingness to work collaboratively**

APRIL • **COMPLEX NUMBERS & QUADRATIC EQUATIONS** • **TRIGONOMETRY**	**MAY** • **TRIGONOMETRY CONTD**
JULY • **STRAIGHT LINES** • **3D GEOMETRY**	**AUGUST** • **PERMUTATION AND COMBINATIONS** • **LINEAR INEQUALITIES**
SEPTEMBER • **LINEAR INEQUALITIES CONTD**	**OCTOBER** • **CONIC SECTION** • **SETS**
NOVEMBER • **RELATION & FUNTIONS** • **PROBABILITY**	**DECEMBER** • **STATISTICS**

JANUARY	FEBRUARY
• LIMITS & DERIVATIVES • SEQUENCE & SERIES	• SEQUENCE & SERIES CONTD • LOGARITHMS

ASSESSMENT PLANNER

Periodic Test - 1 **40 Marks**	**SYLLABUS** • COMLEX NUMBERS & QUADRATIC EQUATIONS • TRIGONOMERTY
Periodic Test – 2 **40 Marks**	**SYLLABUS** • CONIC SECTION • SETS • RELATIONS AND FUNCTIONS
Half Yearly Exam **Theory / Practicles** **80/20** **Total** **100 Marks**	**SYLLABUS** • ALL TOPICS OF PA1 AND • STRAIGHT LINES • 3-DIMENTIONAL GEOMETRY • PERMUTATIONS & COMBINATIONS • LINEAR INEQUALITIES
Annual Exam **Theory / Practicles** **80/20** **Total** **100 Marks**	**SYLLABUS** • TERM 1 SYLLABUS • PA2 SYLLABUS AND • PROBABILITY • STATISTICS • LIMIT & DERIVATIVES • SEQUENCE & SERIES • LOGARITHMS

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SUBJECT - WEB APPLICATIONS (803)

ITDC–311 Digital Content Creation- Adding Styles to Web Pages (CSS).

APRIL 2020
Students will be able to :

- **Understand and Define HTML.**
- **Understand and Define the different types of Tags and attributes in HTML.**
- **Design and Code Web pages using Basic HTML.**

MAY 2020
Students will be able to :

- **Understand the need for and Define Cascading Style Sheets (CSS).**
- **Understand and Describe the Advantages of CSS.**
- **Understand and Define the Syntax of a CSS Rule.**
- **Understand and define the different Selectors in CSS**

JUNE 2020
Students will be able to :

- **Understand and Design Web pages using the different style sheet locations (External, Internal, Inline).**
- **Understand and define the Style Rule Over-riding / Cascade**
- **Understand and apply different CSS properties and values.**

JULY 2020
Students will :

- **Recap the concepts learnt in HTML and CSS**
- **Design and write web pages using HTML and CSS**
- **Prepare their Practical File**

ITDC – 312 Web Scripting – Java Script.

AUGUST 2020
Students will be able to :

- **Understand and describe the features and applications of Javascript.**
- **Explain the advantages of using Javascript.**
- **Understand and demonstrate the different ways to write Javascript.**
- **Define variables and understand the need for variables.**
- **Differentiate between different types of Operators.**
- **Design and code scripts using Operators.**
- **Design and Code scripts using popup boxes (alert / confirm / prompt).**

SEPTEMBER 2020
Students will be able to :

- **Recognize the importance of decision constructs or selection statements.**
- **Define and design code using different types of selection statements (if-else / switch-case).**
- **Recognize the importance of iterations / loops.**
- **Define and design code using different types of loop statements (while / do-while / for).**

OCTOBER 2020
Students will be able to :

- **Understand and Describe the DOM (Document Object Model) and the different Objects in the DOM.**

ITDC–313 Work Integrated Learning IT – WA-I.
Students will be able to :

- **Understand the various work areas where they can fit themselves after having working knowledge of various software development tools.**
- **Understand various domains in which they can use their acquired programming skills for the development of different software applications specially web applications to cater the needs of the Business.**
- **Explore various projects in different domains which can be developed by them using Multimedia Authoring Tools, HTML, CSS and Javascript.**

ITDC – 310 Multimedia Authoring- Animation Tools.

NOVEMBER 2020
Students will be able to :

- **Understand and Define Animation.**
- **Understand and Define Key Terms in Animation.**
- **Identify and Describe different Animation Tools.**
- **Understand and design Frames and Key Frames.**
- **Create an Animation using Tweening and Actionscripts.**

DECEMBER 2020
Students will be able to :

- **Understand and Import Audio/Video Files.**
- **Understand and Define Lossy / Lossless Audio File Formats**
- **Understand and Define Digital Video / DV Encoders.**
- **Understand and Describe the Tools for Multimedia Publishing.**

JANUARY 2021
RECAP

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SUBJECT - PHYSICAL EDUCATION (048)

APRIL 2020

UNIT 1 - Changing Trends & Career in Physical Education
Students will be able to :

- **Understand and define the meaning of Physical Education.**
- **Understand and define the Aims and Objectives of Physical Education.**
- **Understand and describe the various Career Options in Physical Education.**
- **Understand and describe the Competitions in various sports at national and international level.**
- **Understand and describe the Khelo-India Program.**

MAY 2020
UNIT 2 - Olympic Value Education

Students will be able to :

- **Understand and describe the Olympics, Paralympics and Special Olympics.**
- **Understand, define and describe the Olympic Symbols, and Olympic Ideals,**
- **Understand, define and describe the Objectives & Values of Olympism.**
- **Understand and describe the International Olympic Committee.**
- **Understand and describe the Indian Olympic Association.**

JULY 2020
UNIT 3 - Physical Fitness, Wellness & Lifestyle

Students will be able to :

- **Understand and describe the Meaning & Importance of Physical Fitness, Wellness & Lifestyle.**
- **Understand and describe the Components of physical fitness and Wellness.**
- **Understand and describe the Components of Health related fitness.**

AUGUST 2020
UNIT 4 - Physical Education & Sports for CWSN (Children With Special Needs- Divyang)

Students will be able to :

- **Understand the need for Inclusion in sport.**
- **Understand and define the Aims & objectives of Adaptive Physical Education.**
- **Understand and define the Vision, Mission and Goals of Organizations promoting Adaptive Sports (Special Olympics Bharat; Paralympics, Deaflympics)**
- **Understand, define and describe the Concept of Inclusion, its need and Implementation.**
- **Understand, define and describe the Role of various professionals for children with special needs. (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator).**

SEPTEMBER 2020
UNIT 5 - YOGA

Students will be able to :

- **Understand, define and describe the Meaning & Importance of Yoga.**

- **Understand, define and describe the Elements of Yoga.**
- **Understand the basics of various Asanas: Pranayam, Meditation & Yogic Kriyas.**
- **Understand the meaning and classification of various Asanas.**
- **Understand Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Shashankasana, Naukasana, Vrikshasana (Tree pose), Garudasana (Eagle pose)**
- **Understand Relaxation Techniques for improving concentration – Yoganidra**

OCTOBER 2020
UNIT 6 - Physical Activity & Leadership Training

Students will learn the following :

- **Leadership Qualities & Role of a Leader**
- **Creating leaders through Physical Education**
- **Meaning, objectives & types of Adventure Sports (Rock**
- **Climbing, Tracking, River Rafting, Mountaineering, Surfing and Para Gliding)**
- **Safety measures to prevent sports injuries**

NOVEMBER 2020
UNIT 7 - Test, Measurement & Evaluation

Students will learn the following :

- **Define Test, Measurement & Evaluation**
- **Importance of Test, Measurement & Evaluation In Sports**
- **Calculation of BMI & Waist - Hip Ratio**
- **Somato Types (Endomorphy, Mesomorphy & Ectomorphy)**
- **Measurement of health related fitness**

DECEMBER 2020
UNIT 8 - Fundamentals of Anatomy, Physiology & Kinesiology in Sports

Students will learn the following :

- **Definition and Importance of Anatomy, Physiology & Kinesiology.**
- **Function of Skeleton System, Classification of Bones & Types of Joints**
- **Properties and Functions of Muscles**
- **Function & Structure of Respiratory System and Circulatory System**
- **Equilibrium – Dynamic & Static And Centre of Gravity and its application in sports**

JANUARY 2020
UNIT 9 - Psychology & Sports

Students will learn the following :

- **Definition & Importance of Psychology in Physical Education & Sports**
- **Define & Differentiate Between Growth & Development**
- **Developmental Characteristics At Different Stages of Development**
- **Adolescent Problems & Their Management**

FEBRUARY 2020
UNIT 10 - Training and Doping in Sports

Students will learn the following :

- **Meaning & Concept of Sports Training**
- **Principles of Sports Training**
- **Warming up & limbering down**
- **Skill, Technique & Style**
- **Concept & classification of doping**
- **Prohibited Substances & their side effects**
- **Dealing with alcohol and substance abuse**

RECAP

SUBJECT - ENTREPRENEURSHIP

APRIL

UNIT -1

ENTREPRENEURSHIP - WHAT, WHY AND HOW

After studying this lesson the students should be able to :

- **Understand the concept of Entrepreneurship.**
- **Explain the functions of Entrepreneurship.**
- **Appreciate the need for Entrepreneurship in our economy.**
- **State the myths, advantages and disadvantages of Entrepreneurship.**
- **Describe the process of Entrepreneurship**

MAY

UNIT – 2

AN ENTREPRENEUR

After going through this lesson the students will be able to :

- **Differentiate between various types of Entrepreneurs.**
- **Explain the competencies of an Entrepreneur.**
- **Understand the meaning of Ethical Entrepreneurship**
- **Appreciate the importance of Ethical Entrepreneurship**
- **Highlight the value of Ethics to an Entrepreneur.**
- **Differentiate between Entrepreneur and Employee**
- **State the meaning and describe the importance of Intrapreneurship in an Organisation.**
- **Project work during Summer Break**

JULY

UNIT- 3

ENTREPRENEURSHIP JOURNEY

After studying this unit students will be able to :

- **Understand the concept of Business Plan.**
- **Understand the role of society and family in the growth of an Entrepreneur.**
- **Differentiate between Feasibility Study and Business Plan.**
- **Understand the reason for success and failure of Business Plan**
- **Understand the organization and direction of activities in a Business Venture.**

AUGUST

UNIT – 4

ENTREPRENEURSHIP AS INNOVATION AND PROBLEM SOLVING

After studying this lesson the students should be able to :

- **Understand the role of Entrepreneurs as problem solvers in Society**
- **Appreciate the role of innovations in Entrepreneurial ventures.**
- **Explain the concept and importance of Social Entrepreneurship.**
- **Differentiate between internal and external risk.**
- **Describe the role played by technology in creation of new forms of business.**
- **Explain the different barriers of Entrepreneurship.**
- **Understand the term Business Incubator.**

SEPTEMBER

UNIT – 5
UNDERSTANDING THE MARKET

After studying this unit students will be able to :

- **Understand the concept of market and its evolution over time.**
- **Understand the meaning and concept of E-Business and E- Commerce. Its role in the modern day business community.**
- **Analyze the Market Environment at Micro and Macro level.**
- **Explain the techniques of Market Research and instruments used in the same.**

(CONTINUED IN OCTOBER)

OCTOBER

- **Understand the strategy of market expansion and development.**
- **Understand the elements of Trade and Commerce**
- **Explain the concept of Marketing mix and the 4 P'S Of Marketing**

UNIT – 6
BUSINESS ARITHMETIC

After studying this lesson the students should be able to :

- **Understand the importance and technique of preparing a Cash Register.**
- **Understand the meaning and concept of the term Cash Inflow and Cash Outflow**
- **Understand the concept of COST and its components - Start up , Fixed and Variable Cost**
- **Explain the terms – Unit Cost, Unit Of Sale Unit Price**

(CONTINUED IN NOVENBER)

NOVEMBER

- **Calculate per unit cost of a Single Product.**
- **Explain the concept of Profit , its calculation and the impact of direct and indirect expenses on the profit.**
- **Understand the concept of Break Even Analysis.**
- **Understand the meaning and importance of Taxes.**

DECEMBER
UNIT – 7
RESOURCE MOBILIZATION

After studying this lesson the students should be able to :

- **Identify the different types of resources.**
- **Understand the selection process of Human Resources**
- **Describe the role and importance of a Mentor**
- **State the meaning of Fixed and Working capital**
- **Explain the factors affecting working capital**
- **Describe the meaning of capital structure**

(CONTINUED IN JANUARY)

JANUARY

- **Understand the concept of Mentorship**
- **Highlight the Role and importance of Mentor**
- **Classify the Business and Industry**
- **Identify the various sources for an Entrepreneur**

FEBRUARY

- **Revision for Final Term**

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SUBJECT- Information Technology (802)

APRIL	LEARNING OUTCOMES
UNIT 1 -COMPUTER ORGANIZATION **UNIT 2 - NETWORKING AND INTERNET**	• Understand and appreciate fundamentals of Computer and its characteristics • Understand the components of computer • Understand Operating System • Understand the importance of Utilities • Understand Computer Networking • To understand Internet and its terminology
MAY	**LEARNING OUTCOMES**
UNIT 2 -NETWORKING AND INTERNET (Contd.)	• Internet Devices to be used and the protocols • Networking Security Measures • Network safety concerns
JULY **UNIT 2 -NETWORKING AND INTERNET (Contd.)**	**LEARNING OUTCOMES** • Understand what is cybercrime and the need of Cyber Security • Cyber Safety Laws for safe practices
AUGUST **UNIT 3 - Office Automation Tools - Spreadsheet.**	**LEARNING OUTCOMES** • Know the office automation concepts • Apply software application to the office work using OpenOffice Calc • Electronic Spreadsheets (Entering data in worksheet, Navigating with worksheet, Insert,/ delete cell, using various formulae, format the data in worksheet, define and apply styles, enhance worksheets using charts etc.)
SEPTEMBER **UNIT 3 - Office Automation Tools - Word processing. (Contd)** **.**	**LEARNING OUTCOMES** • Know the office automation concepts • Apply software application to the office work using OpenOffice Writer • Basic functionalities of word processing tools (Creating, saving, copy, move, text formatting, Page layout, Mail merge etc.)

OCTOBER	**LEARNING OUTCOMES**
UNIT 3 - Office Automation Tools – Presentation. (Contd)	• **Know the office automation concepts** • **Apply software application to the office work using OpenOffice Impress** • **Electronic presentation tools (Anatomy of application window, basic functions with applying designs, using animation, slide transitions, Insert clip art, insert sound/movies etc.)**
NOVEMBER	**LEARNING OUTCOMES**
UNIT 4 - RDBMS	• **Understand Relational Database Management System** • **Introduction to MYSQL** • **DML Commands**
DECEMBER	**LEARNING OUTCOMES**
UNIT 5 - FUNDAMENTALS TO JAVA PROGRAMMING	• **Understand Integrated Development Environment (NETBEANS)** • **JAVA Programming**
JANUARY	**LEARNING OUTCOMES**
SECTION A - EMPLOYABILITY SKILLS **Unit 1 Communication Skills –III**	• **Demonstrate knowledge ofvarious methods of communication** • **Identify specific Communication styles** • **Demonstrate basic writing skills**
Unit 2 Self-management Skills –III	• **Demonstrate impressive appearance and grooming** • **Demonstrate team work skills** • **Apply time management strategies and techniques**
Unit 3: Information & Communication Technology – III	• **Create a document on word processor** • **Edit, save and print a document in word processor**
FEBRUARY	**LEARNING OUTCOMES**
SECTION A - EMPLOYABILITY SKILLS (Contd.) **Unit 4: Entrepreneurial Skills – III**	• **Describe the significance of entrepreneurial** • **Demonstrate the knowledge of attitudinal changes required to become an entrepreneur**

Unit 5: Green Skills – III	• **Describe importance of main sector of green economy** • **Describe the major green Sectors/Areas and the role of various stakeholder in green economy**

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SUBJECT - Informatics Practices (065)

APRIL	**LEARNING OUTCOMES**
Unit 1 - Introduction to computer system **Unit 4 - Emerging Trends**	• **Understand and appreciate fundamentals of Computer and its characteristics** • **Understand the components of computer** • **Understand Operating System** • **Understand the importance of Utilities** • **Identify the Emerging trends in the fields of Information Technology.** • **Artificial Intelligence (AI)** • **Big Data**
MAY	**LEARNING OUTCOMES**
Unit 4 - Emerging Trends (Contd.)	• **Identify the Emerging trends in the fields of Information Technology.** • **Internet of Things (IoT)** • **Cloud Computing** • **Grid Computing** • **Blockchains**
JULY	**LEARNING OUTCOMES**
Unit 2: Introduction to Python	• **General concept to create Python programs using different data types, lists and dictionaries.** • **Python Keywords & Data Handling** • **Programs for Input and Output data**
AUGUST	**LEARNING OUTCOMES**
Unit 2: Introduction to Python (Contd)	• **Purpose and Difference between Conditional and Iteration / Looping statements.**
SEPTEMBER	**LEARNING OUTCOMES**
Unit 3: Database concepts and the Structured Query Language	• **Understand database concepts and Relational Database Management Systems.** • **Advantages of using Structured Query Language**

OCTOBER	**LEARNING OUTCOMES**
Unit 3: Database concepts and the Structured Query Language (Contd.)	• **Retrieve and manipulate data in RDBMS using Structure Query Language** • **Data Definition: CREATE TABLE** • **Data Manipulation: INSERT**
NOVEMBER	**LEARNING OUTCOMES**
Unit 3: Database concepts and the Structured Query Language (Contd.)	• **Retrieve and manipulate data in RDBMS using Structured Query Language** • **Data Query: SELECT, FROM, WHERE.**
DECEMBER	**LEARNING OUTCOMES**
Unit 2: Introduction to Python - List (Contd.)	• **Introduction to List** • **Concept of using the List Operations and Traversing a List**
JANUARY	**LEARNING OUTCOMES**
Unit 2: Introduction to Python - List (Contd.) **Unit 2: Introduction to Python – Dictionaries (Contd.)**	• **How use List Methods and Built-in Functions And Manipulation** • **Introduction to Dictionaries** • **Concept of Traversing a Dictionary**
FEBRUARY	**LEARNING OUTCOMES**
Unit 2: Introduction to Python – Dictionaries (Contd.)	• **Concept of using Dictionary Methods and Built-in Functions and Manipulating Dictionaries**

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SUBJECT - ACCOUNTANCY

LEARNING OUTCOMES
AND
ASSESSMENT PLANNER
(MONTH WISE)

APRIL TOPICS WITH LEARNING OUTCOMES	MAY TOPICS WITH LEARNING OUTCOMES
Meaning in objectives of accounting: The student will be able to define explain list the meaning process advantages limitations of accounting. **Basic accounting terms: The student shall be able to express the meaning of the accounting terms with examples and clarity.** **Accounting principles: The student will be able to understand the nature meaning features necessity of the accounting principles, accounting concepts and assumptions and is able to define each of them with example and clarity.** **Process and Bases of accounting: The student would be able to differentiate between the accrual basis and cash basis of accounting through illustrations and various basis of differences.**	**Double entry system : The student would be able to understand the meaning of an account, meaning of debit and credit, rules of debit and credit, and significance of debit and credit balance in accounts** **Origin of transactions source documents of accountancy: The student would be able to know the names, uses of source documents and Identify their Proforma and it's utility in accounting** **Books of original entry journal: This would enable the students to understand the meaning of journal and journalizing, the advantages and limitations, steps in journalizing, simple and compound journal entries, discount and rebate, difference between trade discount, rebate and cash discount, opening entry.**
JULY **TOPICS WITH LEARNING OUTCOMES**	**AUGUST** **TOPICS WITH LEARNING OUTCOMES**
Journals with GST: The study of this chapter would enable the student to understand the meaning of GST, objectives, characteristics, categories of GST, intra State Supply, Inter State Supply, Accounting entries of GST **Ledgers, Trial balance :This chapter would enable the student to understand the meaning, features and utilities of ledger, format of ledger account, mechanics of posting, balancing of ledger accounts, difference between journal and ledger and drafting of trial balance.** **Cash Book: The students will be able to understand the meaning of subsidiary books of accounting, classification of subsidiary books, advantages, meaning and features of cash book, kinds of types of cash book, simple cash book, cash book with 2 columns, balancing and posting of cash book.**	**Subsidiary Books :This chapter would enable the students to understand subdivision of journal, purchase book, sales book, purchase return book, sales return book, journal proper, mechanics of posting of subsidiary books or special journals.** **Rectification of Errors:The students would be able to understand the classification of errors: errors of omission, errors of commission, errors of principle and compensating errors.** **Errors affecting the trial balance or one-sided errors, errors not affecting the trial balance or two sided errors, locating errors or detection of errors, rectification of errors : before preparation of the trial balance, after preparation of the trial balance but before preparation of the final accounts, suspense account.**

	Bank Reconciliation Statement: This chapter would enable the students to understand the meaning of bank reconciliation statement, meaning,need and importance of bank reconciliation statement, reasons of difference between balances as per cash book and pass book, methods of preparing bank reconciliation statement, presentation of bank reconciliation statement.
SEPTEMBER **TOPICS WITH LEARNING OUTCOMES** **REVISION** **Accounting Equation: This chapter would enable the student to understand:** **Meaning of an accounting equation, effect of transactions on accounting equation, process of preparing preparing accounting equation, rules for accounting equations, effect of adjustment transactions on accounting equation**	**OCTOBER** **TOPICS WITH LEARNING OUTCOMES** **Depreciation & Provision for Depreciation :** **:This chapter would enable the student to understand meaning of depreciation, depreciation and amortization and depletion, causes or reasons of depreciation, accounting concept of depreciation and depreciation accounting, objectives or need for providing depreciation, factors or basis of providing depreciation, methods of recording depreciation, difference between depreciation account and provision for depreciation account, methods of depreciation, preparation of asset disposal account, difference between straight line method and written down value method.** **Bills of Exchange: This chapter would enable the student to understand the meaning and features of bills of exchange, parties to a bill of exchange, advantages of bill of exchange, various important terms of bills of exchange, accounting treatment of Trade bills in the journal of drawer drawee and endorsee.**
NOVEMBER **TOPICS WITH LEARNING OUTCOMES** **Bills of Exchange continued** **Financial Statements without adjustments: This chapter would enable the student to understand: meaning of financial statements, objectives or needs or importance of financial statements, users of financial statements, classification of capital and revenue items, preparation of trading account, profit and loss account and balance sheet, grouping and marshalling (arrangement) of Assets and liabilities, classification of Assets and liabilities, methods of presentation of financial statements.**	**DECEMBER** **TOPICS WITH LEARNING OUTCOMES** **Financial Statements with Adjustments: This chapter will enable the students to understand the need for adjustments in the final accounts, adjustments in preparation of financial statements with respect to: inventory, prepaid, outstanding expenses accrued and unearned income, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, managers Commission, interest on capital, goods distributed as samples, abnormal or accidental losses, goods taken by proprietor for personal use.**

JANUARY TOPICS WITH LEARNING OUTCOMES	FEBRUARY TOPICS WITH LEARNING OUTCOMES
Financial Statements with Adjustments continued **Provisions & Reserves: This chapter would enable the student to understand : meaning and importance of provisions, concept of provisions, objectives of provisions, meaning importance and types of reserves, revenue reserve, Capital Reserve, difference between revenue reserve and Capital Reserve, general reserve and specific reserve, secret reserve, difference between reserve and provision**	**Revision: All topics with comprehensive problems and overall view of the concepts and principles of the subject.**

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SUBJECT - ECONOMICS

GENERAL LEARNING OUTCOMES
(Introductory Microeconomics and Statistics for Economics)

The prescribed CBSE syllabus aims to help students to

1. understand basic economic concepts
2. develop economic reasoning which can be applied in day-to-day life
3. acquire analytical skills to observe and understand economic realities
4. equip students with basic tools of Statistics to understand and analyse economic situations
5. develop an understanding that there can be more than one view on any economic issue and to argue logically with reasoning

APRIL

1. DEFINITION OF STATISTICS
On completion of the chapter, the students will be able to

- **Define the meaning of Statistics in the singular and Plural sense**

2. SCOPE AND FUNCTIONS OF STATISTICS
On completion of the chapter, the students will be able to

- **Discuss the scope and functions of Statistics**
- **Appreciate the importance of statistics in Economics**

3. PRIMARY AND SECONDARY DATA
On completion of the chapter, the students will be able to

- **Distinguish between sources of data - primary and secondary**
- **Evaluate the relevance of each kind of data in various circumstances.**
- **List the sources of secondary data**

MAY

1. CENSUS AND SAMPLING
On completion of the chapter, the students will be able to

- **Describe the concepts of Sampling**
- **List the methods and their relevance**
- **Comprehend the importance of Census of India and National Sample Survey Organisation.**

2. ORGANIZATION OF NUMERICAL DATA
On completion of the chapter, the students will be able to

- **Describe the meaning of variables**
- **Identify various types of Frequency Distributions and series**
- **Convert one series into another**

3. SCARCITY & CENTRAL PROBLEMS OF AN ECONOMY
On completion of the chapter, the students will be able to

- **Comprehend the meaning of microeconomics and macroeconomics**
- **Differentiate between positive and normative economics**
- **Explain what is an economy**

4. CONCEPTS OF OPPORTUNITY COST

On completion of the chapter, the students will be able to

- **List and describe the central problems of an economy: what, how and for whom to produce**

Explain the concept of opportunity cost and its relevance in economic theory

JULY

1. ARITHMETIC MEAN

On completion of the chapter, the students will be able to

- **solve problems using various alternative formulae**
- **provide interpretation for the results derived**

2. MEDIAN AND QUARTILES

On completion of the chapter, the students will be able to

- **solve problems using various alternative formulae**
- **provide interpretation for the results derived**

3. DEMAND & PRICE ELASTICITY OF DEMAND

On completion of the chapter, the students will be able to

- **define Demand**
- **differentiate between demand and market demand**
- **list and explain the determinants of demand**
- **write and describe the demand schedule**
- **draw the demand curve**
- **comprehend the slope of the demand curve**
- **compare movement along and shifts in the demand curve**
- **comprehend price elasticity of demand**
- **list the factors affecting price elasticity of demand**
- **measure the price elasticity of demand using percentage-change method**

6. SUBMISSION OF ECO PROJECT

On completion of the project, the students will be able to

- **acquire knowledge and facts about their chosen topic**
- **Use appropriate presentation techniques to showcase their study**
- **analyse, evaluate and examine the material and break information into parts by identifying motives or causes**
- **Make inferences and find evidence to support generalizations**
- **Present and defend opinions by making judgments about information, validity of ideas, etc**
- **Compile information together to propose alternative solutions.**

AUGUST

1. SUPPLY AND ITS PRICE ELASTICITY

On completion of the chapter, the students will be able to

- **define Supply**
- **differentiate between supply and market supply**
- **list and explain the determinants of supply**
- **write and describe the supply schedule**

- **draw the supply curve**
- **comprehend the slope of the supply curve**
- **compare movement along and shifts in the supply curve**
- **comprehend price elasticity of supply**
- **list the factors affecting price elasticity of supply**
- **measure the price elasticity of supply using percentage-change method**

2. DIAGRAMMATIC PRESENTATION OF DATA (BAR AND PIE DIAGRAMS)
On completion of the chapter, the students will be able to

- **Comprehend Tabular Presentation of data**
- **Learn Diagrammatic Presentation of Data: Geometric forms (bar diagrams and pie diagrams)**
- **Draw diagrams and comprehend their suitability**

3. CONSUMER'S EQUILIBRIUM (UTILITY ANALYSIS)
On completion of the chapter, the students will be able to

- **Define consumer's equilibrium –**
- **Explain the meaning of utility, marginal utility**
- **Describe and appreciate the relevance of the law of diminishing marginal utility**
- **State the conditions of consumer's equilibrium using marginal utility analysis.**

4. CONSUMER'S EQUILIBRIUM (IC ANALYSIS)
On completion of the chapter, the students will be able to

- **Explain the Indifference curve analysis of consumer's equilibrium**
- **Discuss the consumer's budget (budget set and budget line)**
- **Identify the preferences of the consumer (indifference curve, indifference map)**
- **State the conditions of consumer's equilibrium.**
- **Show equilibrium using figures**

SEPTEMBER

1. MODE
On completion of the chapter, the students will be able to

- **solve problems using various alternative formulae**
- **provide interpretation for the results derived**

2. TERM EXAM

OCTOBER

1. CORRELATION (KARL PEARSON'S COEFFICIENT)
On completion of the chapter, the students will be able to

- **comprehend the meaning and properties of Correlation**
- **draw scatter diagrams**
- **solve problems using various alternative formulae**
- **provide interpretation for the results derived**

2 PRODUCTION FUNCTION
On completion of the chapter, the students will be able to

- **explain the meaning of Production Function**
- **differentiate between Short-Run and Long-Run Total Product, Average Product and Marginal Product**
- **comprehend the Returns to a Factor**
- **state the three phases in the law**
- **draw figure and describe the phases**

3. GRAPHICAL PRESENTATION OF DATA (HISTOGRAMS, POLYGONS, OGIVES, TIME SERIES GRAPHS)
On completion of the chapter, the students will be able to

- **learn graphical Presentation of Data: Frequency diagrams (histogram, polygon and Ogive) and Arithmetic line graphs (time series graph)**
- **understand the meaning and relevance of each kind of presentation**

NOVEMBER

1. COST
On completion of the chapter, the students will be able to

- **define Cost: Short run costs**
- **compare total cost, total fixed cost, total variable cost**
- **differentiate between Average cost, Average fixed cost, Average variable cost and Marginal cost**
- **describe the meaning of each curve and their relationships with each other**
- **draw the cost curves showing their relationship**
- **attempt numericals**

2. REVENUE
On completion of the chapter, the students will be able to

- **define TR, AR, MR**
- **differentiate between total, average and marginal revenue**
- **state the meaning of each curve and their relationship**
- **draw the revenue curves showing their relationship**
- **attempt numerical**

3. MARKET EQUILIBRIUM UNDER PERFECT COMPETITION
On completion of the chapter, the students will be able to

- **describe Perfect competition**
- **list its features**
- **comprehend the determination of market equilibrium**
- **understand and show the effects of shifts in demand and supply**
- **explain simple applications of Demand and Supply: Price ceiling, price floor.**

DECEMBER

1. MEASURES OF DISPERSION (STANDARD DEVIATION & VARIANCE)
On completion of the chapter, the students will be able to

- **solve problems using various alternative formulae**
- **provide interpretation for the results derived**

JANUARY

1. INDEX NUMBERS

On completion of the chapter, the students will be able to

- **define and compare types of Index numbers**
- **identify the meaning and relevance of wholesale price index, consumer price index**
- **appreciate the uses of index numbers**
- **comprehend the use of index numbers to study inflation**

2. PROJECT REVIEWS

FEBRUARY

1. PROJECT VIVA

2. REVISION

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SUBJECT -ENGLISH

GENERAL LEARNING OUTCOMES

The students will be able to

1. **acquire a reasonable degree of language proficiency in English language**
2. **appreciate the various genres of texts presented in the syllabus**
3. **hone their language abilities for effective reading, writing, listening and speaking skills**

APRIL

1. The Summer of the Beautiful White Horse (Snapshots)

- **Summarize the story in a gap-filling exercise. (Understand)**
- **Recall the important points of the story through a questionnaire (Remember)**
- **Write the character sketch of Uncle Khosrove and Mourad (Create)**
- **Infer the meaning of some important statements in the story writing a short note on them. (Analyze)**
- **Debate :Did the boys return the horse because they were conscience-stricken or because they were afraid? (Evaluate)**

2. Childhood (Hornbill)

- **Identify the traits of childhood mentioned in the poem**
- **Infer the qualities that indicate the loss of childhood**
- **comprehend the difference between what is said and what is implied**
- **explain the use of the poetic devices in the poem**

3. School Notices (Writing)

- **comprehend the purpose of writing notices.**
- **apply the correct format while writing a notice**
- **recognise the kind of notices that appear for school events.**
- **arrange and present relevant information based on inputs provided for the notice.**
- **compose notices with relevant content on a variety of topics**

MAY

1. The Portrait of a Lady (Hornbill)

- **select and extract relevant information, using reading skills of skimming and scanning**
- **Summarize the story 'The Portrait of a Lady' in a gap-filling exercise. (Understand)**
- **Recall the important points of the story through short answer questions and long answer type questions worksheet. (Remember)**
- **Write the character sketch of the grandmother (Create)**
- **Justify the title by writing a short note on it. (Evaluate)**
- **Inculcate Practice by being calm in adverse situations (Apply)**
- **Infer the meaning of metaphorical statements (Analyze)**

2. The Address (Snapshots)

- **Recall from their history lessons the atrocities faced by millions of Jewish people during the Holocaust (IInd World War)**
- **Recognise the recurring autobiographical elements of author's life in the story**
- **Compare and contrast the pre-war and post-war life of the narrator**
- **Deconstruct the character of Mrs Dorling and people like her who make us question the goodness of human beings.**
- **Empathise with people who have witnessed war and the trauma of it.**
- **Identify with the various kind of changes to human life that war causes**
- **Evaluate the transformation that happened in the life of the Narrator during the turmoil of war.**
- **compose well-structured answers based on**

	their comprehension of the lesson. • **analyse that the narrator's decision to forget the past and move on in life.**
JULY **1. Voice of the Rain (Hornbill)** • **grasp the theme and meaning of the poem** • **interpret the title of the poem** • **explain the cyclic nature of rain** • **read the poem aloud with proper stress and intonation.** • **discuss the theme, poetic devices, structure and rhyme.** **2. Note Making (Writing)** • **select and extract relevant information, using reading skills of skimming and scanning** • **summarize information from a variety of passages** • **Reconstruct relevant information and arrange them coherent presentation.** • **Supply suitable title and make use of abbreviations** **3. We're Not Afraid to Die... if We Can All Be Together (Hornbill)** • **Summarize the story in a gap-filling exercise. (Understand)** • **Recall the important points of the story through short answer questions and long answer type questions worksheet. (Remember)** • **Learn the different parts of the ship mentioned in the story. (Remember)** • **Write the character sketch of the narrator (Create)** • **Justify the title by writing a short note on it. (Evaluate)** • **Practice: being calm in adverse situations (Apply)** **4. Discovering Tut : The Saga Continues (Hornbill)** • **Identify the mysteries and theories regarding the life and death of King Tut. (remember)** • **compare the various processes of investigation undertaken by Carter and Zahi Hawass. (understand)** • **analyze the significance of the Pharoah's curse (evaluate)**	**AUGUST** **1. Enquiry letter & Reply (personal)- Writing** • **Recall the elements of a formal letter** • **Identify the queries to be made in the letter.** • **Frame questions appropriately to seek information.** • **Compose letters of enquiry and reply on a variety of topics.** **2. Albert Einstein at School (Snapshots)** • **Identify the reasons why Einstein was miserable at school** • **Derive Einstein's theory of education from the text** • **Describe the circumstances which lead to his expulsion from school** • **Comment on the attitude of teachers towards Einstein** • **Assess Einstein's nature based on his conversation with various teachers** • **Establish the reason why Doctor Weil agreed to give Einstein the medical certificate.** **3. Posters (Writing)** • **comprehend the purpose of designing posters.** • **apply the correct format in the poster** • **recognise the kind of posters that appear for general events.** • **Create visual inputs to enhance the aesthetic appeal of the poster.** • **arrange and present relevant information based on inputs provided for the poster.** • **compose posters with relevant content on a variety of topics**

• enumerate the difficulties that arose at the time of investigation (remember) • assess how the lifestyle, beliefs and religious background of Egypt vary from modern times.(create)	
SEPTEMBER **1. Speech (Writing)** • understand the language of propaganda and persuasion • use persuasive language in defending one's opinion • indentify points for the introduction, body and conclusion • choose words and phrases to make the content effective **2. Laburnum Top (Hornbill)** • Know about the poet and his contributions • list examples of onomatopoeia, simile, metaphor • paraphrase the poem • describe the symbiotic relationships in nature **3. Term 1 Exams**	**OCTOBER** **1. Silk Road (Snapshots)** • Trace the author's journey which from Ravu to Mt. Kailash. • Explain the significance of kora. • Describe the sights he sees on the way. • Illustrate the expertise demonstrated by Tsetan with relevant examples. • Infer why the author was not impressed to witness the beauty of Lake Mansarovar • Recognize the health difficulties faced by the author and effectiveness of the remedy • Discuss why the author considered Norbu to be an ideal companion. **2. The Ailing Planet: The Green Movement's Role (Hornbill)** • select and extract relevant information, using reading skills of skimming and scanning • identify the reasons stated by the author for the steady deterioration of the planet • explain the comparison of the earth to a patient in declining health • list the principal biological systems of the earth and state the reasons for their decline • justify the author's view of correlating growing population to the possible demise of the planet. • Create awareness about the need for concerted action towards sustainable development. **3. The Browning Version (Snapshots)** • List the personality traits of Mr.Crocker-Harris that emerge from the conversation between Frank and Taplow. • Compare the personalities of the tow masters and how the students view them. • Infer Taplow's personal views about Mr.Crocker-Harris • Analyse the title of the play • Role play the characters with proper delivery of dialogues

	4. Enquiry Letters & Reply (Business)- Writing • **Recall the elements of a formal letter** • **Identify the queries to be made in the letter.** • **Frame questions appropriately to seek information.** • **Compose letters of enquiry and reply on a variety of topics.**
<u>NOVEMBER</u> **1. Letters Placing Order (Personal & Business)- Writing** • **Recall the elements of a formal letter** • **Identify relevant information while placing orders** • **Frame statements appropriately for a business transaction.** • **Compose letters to place orders for a on a variety of goods and services.** **2. General Notices - Writing** • **Comprehend the purpose of writing notices.** • **apply the correct format while writing a notice** • **recognise the kind of notices that appear for general events.** • **arrange and present relevant information based on inputs provided for the notice.** • **compose notices with relevant content on a variety of topics**	**<u>DECEMBER</u>** **1. Complaint letters & Cancellation Letters - Writing** • **Recall the elements of a formal letter** • **Identify relevant information while registering complaints.** • **Frame statements appropriately to convey dissatisfaction with products or services.** • **Suggest measure to remedy the situation.** • **Compose letters to complaint about a variety of goods and services in a suitable manner.** **2. Mother's Day (Snapshots)** • **Identify the elements of style such as humour and irony in the play** • **Explore and evaluate features of characters - Mrs. Pearson and Mrs. Fitzgerald** • **explain why Mrs. Pearson could never stand up to her family.** • **discuss the effectiveness of the methods used by Mrs. Fitzgerald.** • **Role play the characters with proper delivery of dialogues** • **enumerate the oral and visual elements of drama** **3. Birth (Snapshots)** • **Recall the significance of the birth of the baby for the Morgans** • **Discuss the conflict in Andrew's mind regarding his relationship with Christine.** • **Explain the unusual procedure followed by Andrew ro revive the baby** • **Justify the title of the story** • **Relate the experiences narrated in the story to their own.**

JANUARY	FEBRUARY
1. A Photograph (Hornbill) • to paraphrase the poem 'A Photograph' by Shirley Toulson (Remember) • to identify the figure of speech used in the poem (Remember) • to justify the title of the poem (Evaluate) • to analyse the important phrases in the poem (Analyse) **2. Debate (Writing)** • understand the language of propaganda and persuasion • present persuasive arguments to defend one's opinion • indentify points for the introduction, body and conclusion • choose words and phrases to make the content effective **3. Job Application (Writing)** • Discuss the significance of the drafting a good job application • List the essential qualities and pieces of information that are necessary for the job application • Frame statements appropriately for a job application • Draft the bio-data with information in the correct sequence. • Compose job applications for a on a variety of posts.	**1. Formal & Informal Invitations and Replies (Writing)** • Comprehend the purpose of writing informal invitations and their replies. • apply the correct format while writing an invitation • recognise the kind of invitations given out to people depending on their relationship with the writer. • arrange and present relevant information based on inputs provided for the invitation. • compose invitations with relevant content for a variety of events **2. Commercial Advertisements (Writing)** • comprehend the purpose of drafting ads. • apply the correct format in the ad • recognise the kind of ads that appear for various products and services • Create visual inputs to enhance the aesthetic appeal of the ad. • arrange and present relevant information based on inputs provided for the ad. • compose ads with relevant content on a variety of topics **3. Revision for Final Term Examination**

- **THE SYLLABUS IS SUBJECT TO CHANGE ACCORDING TO THE INSTRUCTIONS THAT COME LATER DURING THE ACADEMIC SESSION BY THE CBSE.**
- **ANY LESSON THAT IS NOT COMPLETED WITHIN THE STIPULATED TIME WILL BE CARRIED FORWARD TO THE NEXT MONTH.**

ASSESSMENT PLANNER

Periodic Test - 1 **40 Marks**	**SYLLABUS** **Comprehension, Childhood, The Portrait of a Lady, The Address, The Summer of the Beautiful White Horse, Grammar**
Half Yearly Exam **Theory / Prac 80/20**	**SYLLABUS** **Comprehension, Note Making** **Writing- Notice (School), Poster, Enquiry letters (personal) and reply, Speech, Grammar (determiners and tenses)** **Literature-Portrait of a Lady, Childhood, Summer of the Beautiful White Horse, The Address, Ranga's Marriage, Voice of the Rain, We are not Afraid to die.., Discovering Tut, Albert Einstein at school**
Periodic Test - 2 **40 Marks**	**SYLLABUS** **Comprehension, Note making, Grammar, General Notice, Letter -Placing order & reply, Speech, Laburnum Top, Silk Road, The Ailing Planet, The Browning Version.**
Annual Exam **Theory / Prac 80/20**	**SYLLABUS** **Entire Syllabus (except Job Application, Informal Invitations & Reply, Commercial Advertisements)**

SUBJECT - PSYCHOLOGY

MONTH	TOPIC	LEARNING OUTCOMES	Teaching Methods and Aids to be used	ASSIGNMENTS (Class/Home) Assessment
Apr-20	**UNIT 1 : What is Psychology**	**1)The students will be able to understand Psychology as a scientific discipline. 2)The students will be able to state the growth of the discipline in India and the world. 3)The students will be able to know the different fields of psychology, its relationship with other disciplines, and professions.**	**Explanation of concepts by providing notes from text book, research articles & through web links and videos .**	**Asignment Questions will be given for homework .**
May-20	**UNIT 2 :Methods of Enquiry in Psychology**	**1. The students will be able to explain the goals and nature of psychological enquiry. 2. The students will be able to understand different types of data used by psychologists. 3.The students will be able to describe observation method of enquiry. 4. The students will be able to describe experimental methods of psychological enquiry, 5.The students will be able to describe important methods of psychological enquiry, 6. The students will be able to understand the methods of analysing data, and 7. The students will be able to learn about the limitations of psychological enquiry and ethical considerations.**	**Explanation of concepts by providing notes from text book, research articles & through web links and videos .**	**Asignment Questions will be given for homework .**

Jul-20	**Unit-V: Sensory, Attentional, and Perceptual Processes**	**1. The students will be able to understand the nature of sensory processes, 2. The students will be able to explain the processes and types of attention . 3. The students will be able to analyse the problems of form and space perception. 4. The students will be able to reflect on sensory,attentional and perceptual processes in everyday life.**	**The topics will be explained with the help of ppt trough Google classroom. The study material will also be uploaded for the students.**	**Asignment Questions will be given for homework .**
Aug-20	**Unit-VI: LEARNING-**	**1)The students will be able to describe the nature of learning. 2)The students will be able to explain different types of learning and the procedures used in different types of learning. 3) The students will be able to explain the determinants of learning.**	**The topics will be explained with the help of ppt trough Google classroom. The study material will also be uploaded for the students.**	**Asignment Questions will be given for homework .**
Sep-20	**Mid term Examinations**			
Oct-20	**Unit-VII: Human Memory**	**1The students will be able to understand the nature of memory. The students will be able to between different types of memory. The students will be able to understand the nature and causes of forgetting. The students will be able to learn various strategies for improving memory.**	**The topics will be explained THROUGH Google classroom and study material will also be uploaded for the students.**	**Asignment Questions will be given for homework .**

Nov-20	**Unit III: The Bases of Human Behaviour**	**1)The students will be able to understand the evolutionary nature of human behaviour. 2)The students will be able to relate the functions of nervous system and endocrine system to behavior. 3)The students will be able to understand role of culture in shaping human behaviour. 4)The students will be able to describe the processes of enculturation, socialisation, and acculturation.**	**The topics will be explained and study material will be uploaded for the students.**	**Asignment Questions will be given for homework .**
Dec-20	**Unit IV: Human Development**	**1)The students will be able to describe the meaning and process of development. 2)The students will be able to explain the influence of heredity, environment and context on human development. 3)The students will be able to identify the stages of development and describe the major characteristics of infancy, childhood, adolescence, adulthood and old age.**	**The topics will be explained and study material will be uploaded for the students.**	**Asignment Questions will be given for homework .**
01-Jan	**Revision for annual Examinations**			
Feb-21	**Annual Exams**			

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SUBJECT - Engineering Graphics

LEARNING OUTCOMES

1. Develop clear visualization and understanding of geometric shapes, forms & proportion of objects.
2. Develop the skill of expressing real life objects in the professional language of engineers.
3. Familiarizing with various drawing instruments including set squares, compass, mini drafter, roller scales etc. and acquire speed and accuracy in their use.
4. Develop a clear understanding of plane and solid Geometry so as to apply the same in relevant practical fields such as technology and industry.

APRIL

1. Introduction to Engineering Graphics – importance of subject, handling and proper use of instruments,
2. Lettering of drawing sheets
3. Drawing lines and angles

Learning Outcomes: Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Get acquainted with the instruments such as set squares, compass, dividers, various types of pencils. Acquire speed and accuracy in use of drawing instruments.

MAY

1. Drawing other rectilinear 2D figures such as triangles, quadrilaterals, regular polygons such as pentagons and hexagons.
2. Circles
3. Reduced and enlarged figures

Learning Outcomes: Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Get acquainted with the instruments such as set squares, compass, dividers, various types of pencils. Acquire speed and accuracy in use of drawing instruments.

JULY

1. Drawing special curve such as the ellipse.
2. Orthographic projection of a point, line, regular 2D figures like triangle, square, pentagon and hexagon.

Learning Outcomes: Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Acquire speed and accuracy in use of drawing instruments.

AUGUST

1. Orthographic projection of regular solids such as prisms and pyramids.

Learning Outcomes: Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Acquire speed and accuracy in use of drawing instruments.
Develop the skill of expressing real life objects in the professional language of engineers.

SEPTEMBER

1. Sectioning of solids, top view, front view and true shape of section of various solids such as cone, prism and pyramid.

Learning Outcomes: Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Acquire speed and accuracy in use of drawing instruments.

OCTOBER

1. Orthographic projection of simple machine blocks

Learning Outcomes: Develop a clear understanding of plane and solid Geometry so as to apply the same in relevant practical fields such as technology and industry.

NOVEMBER	DECEMBER
1. Development of surfaces of various solids such as cube, Pentagonal Prism, Triangular Pyramid, Square Pyramid etc. **Learning Outcomes:** Develop a clear understanding of plane and solid Geometry so as to apply the same in relevant practical fields such as technology and industry. Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Acquire speed and accuracy in use of drawing instruments.	1. Introduction to Isometric projection. Planar figures, frustums and single objects. **Learning Outcomes:** Develop a clear understanding of plane and solid Geometry so as to apply the same in relevant practical fields such as technology and industry. Enhancing the power to visualize, feel the shapes of various objects in their consciousness. Acquire speed and accuracy in use of drawing instruments.
JANUARY	**FEBRUARY**
1. Practical: (a) Drawing Top View / Plan of a house or a flat (b) Constructing Ellipse using concentric circles, intersecting arcs and intersecting lines methods (c) Construction of an Ellipse using a Trammel **2. Revision of entire syllabus** **Learning Outcomes:** Acquire speed and accuracy in use of drawing instruments.	**Revision** **Learning Outcomes:** Acquire speed and accuracy in use of drawing instruments.

ASSESSMENT PLANNER

Periodic Test - 1 **40 Marks**	**SYLLABUS** 1. Drawing of lines and angles etc. 2. Drawing of rectilinear 2D figures such as triangles, Quadrilaterals, regular polygons such as pentagons and hexagons. 3. Circles and tangents 4. Reduced and enlarged figures
Periodic Test - 2 **40 Marks**	**SYLLABUS** 1. Special curve such as the Ellipse 2. Orthographic projection of a point, line, regular 2D figures like triangle, square, pentagon and hexagon. 3. Orthographic projection of regular solids such as prisms and pyramids. 4. Sectioning of solids, top view, front view and true shape of section of various solids such as cone, prism and pyramid. 5. Orthographic projection of simple machine blocks

Half Yearly Exam **Theory / Practical 70/30**	**SYLLABUS** 1. Drawing lines and angles etc. 2. Drawing other rectilinear 2D figures such as triangles, Quadrilaterals, regular polygons such as pentagons and hexagons. 3. Circles and tangents 4. Reduced and enlarged figures 5. Special curves such as Ellipse, Parabola, Involute, cycloid and Helix. 6. Orthographic projection of a point, line, regular 2D figures like triangle, square, pentagon and hexagon. 7. Orthographic projection of regular solids such as prisms and pyramids.
Annual Exam **Theory / Practical 70/30**	**SYLLABUS** 1. Drawing lines and angles etc. 2. Drawing other rectilinear 2D figures such as triangles, Quadrilaterals, regular polygons such as pentagons and hexagons. 3. Circles and tangents 4. Reduced and enlarged figures 5. Special curve such as Ellipse. 6. Orthographic projection of a point, line, regular 2D figures like triangle, square, pentagon and hexagon. 7. Orthographic projection of regular solids such as prisms and pyramids. 8. Sectioning of solids, top view, front view and true shape of section of various solids such as cone, prism and pyramid. 9. Orthographic projection of simple machine blocks 10. Development of surfaces of various solids such as cube, Pentagonal Prism, Triangular Pyramid, Square Pyramid etc. 11. Isometric projection of planar figures, frustums and single solids. 12. Practical: (a) Making of Pentagonal Prism using card paper. (b) Drawing Top View / Plan of a house or a flat (c) Constructing Ellipse by concentric circles, intersecting lines and intersecting arcs methods. (d) Construction of an Ellipse using a Trammel.

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SUBJECT - BIOLOGY (044)

APRIL

Unit-III Cell: Structure and Function

Chapter-8: Cell-The Unit of Life

Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus

LEARNING OUTCOMES:

Students will be able to:-

1. **State the postulates of cell theory.**
2. **Differentiate between PROKARYOTIC & EUKARYOTIC CELL.**
3. **Draw, understand & explain the composition, function of all the organelle seen in the CELL.**
4. **Explain the structure of cilia, flagella & centrioles**
5. **Explain & draw the Ultra Structure & function of Nucleus.**

MAY

Unit-I Diversity of Living Organisms

Chapter-1: The Living World

What is living? Biodiversity; Need for classification; three domains of life; concept of species and taxonomical hierarchy; binomial nomenclature.

LEARNING OUTCOMES:

Students will be able to: -

1. **Explain the characteristics features of LIVING organism .**
2. **Interpret why there is the need to Classification system.**
3. **Elaborate the type of taxonomic hierarchy in which the classification system is written.**
4. **Explain binomial Nomenclature system for naming an organisms.**

Chapter-2: Biological Classification

Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.

LEARNING OUTCOMES:

STUDENTS WILL BE ABLE TO:

1. **Explain the 5 kingdom Classification system in detail.**
2. **Elaborate the various salient features & their Classification observed in major Phylum.**

Chapter-3: Plant Kingdom

Salient features and classification of plants into major groups - Algae, Bryophyta, Pteridophyta and Gymnospermae. (salient and distinguishing features and a few examples of each category).

LEARNING OUTCOMES :

STUDENTS will be able to:-

1. **Elaborate on the various salient features involved in the Plant kingdom.**
2. **Examples for further understanding are used.**

JULY

Chapter-4: Animal Kingdom

Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and distinguishing features of a few examples of each category). (No live animals or specimen should be displayed.)

LEARNING OUTCOMES:

STUDENTS will be able to :-

1. **Differentiate between , Invertebrates & Vertebrates .**
2. **Elaborate on the various features & classification of animals .**
3. **Explain the Classification System for CHORDATA , in details**

Unit-II Structural Organization in Animals and Plants

Chapter-5: Morphology of Flowering Plants

Morphology of inflorescence and flower, Description of 01 family: Solanaceae or Liliaceae (to be dealt along with the relevant experiments of the Practical Syllabus).

LEARNING OUTCOMES:

STUDENTS will be able to:-

1. **Define Inflorescence.**
2. **Distinguish between Racemose & Cymose Inflorescence.**
3. **Elaborate the important terms / definitions used in Flower Description.**
4. **Interpret the floral description done for family: Solanaceae.**

AUGUST

Chapter-7: Structural Organisation in Animals

Animal tissues.

LEARNING OUTCOMES:

STUDENTS will be able to:-

1. **Differentiate in the various tissues found in the Animals along with their Diagram, structure & composition.**

Chapter-9: Biomolecules

Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzymes- types, properties, enzyme action.

LEARNING OUTCOMES:

STUDENTS Will be able to:-

1. **Differentiate between Micro & Macro molecules.**
2. **Elaborate the structure & function of Protein.**
   3. Elaborate the structure & function of Carbohydrates.
   4. elaborate the structure & function of Lipids, Nucleic Acids.

3. Explain the enzyme mechanism, its types & various other enzymatic action.

Chapter-10: Cell Cycle and Cell Division

Cell cycle, mitosis, meiosis and their significance

LEARNING OUTCOMES:

STUDENTS will be able to: -

1. **Explain the Cell cycle & its phases.**
2. **Draw & explain the various stages involved in MITOSIS.**
   3. DRAW & explain the various stages involved in Meiosis & write its significance.

SEPTEMBER

Unit-IV Plant Physiology

Chapter-15: Plant - Growth and Development

Growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA. Unit-V Human Physiology

LEARNING OUTCOMES :

STUDENT will be able to : -

1. **Define growth , development in a definite mannaer .**
2. **Explain the functions , deficiency symptoms / diseases see for Auxin , Gibberellin , Cytokinin , Ethylene , ABA is done in detailed .**

OCTOBER

Chapter-13: Photosynthesis in Higher Plants

Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.

LEARNING OUTCOMES :

STUDENTS will be able to :-

1. **Understand & explain the mechanism used in by the mesophyll leaf for photosynthesis .**
2. **Enumerate the light reaction & dark reaction pathways .**
3. **Differentiate between Cyclic & Non cyclic photophosphorylation .**
4. **State & explain the Chemiosmotic Hypothesis .**
5. **State & explain the process of Photo respiration .**
6. **Differentiate between C3 & C4 pathways**
7. **Explain the factors affecting rate of photosynthesis .**

Chapter-14: Respiration in Plants

Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient

LEARNING OUTCOMES :

STUDENTS will be able to :-

1. **Distinguish between aerobic & Anaerobic respiration .**
2. **Explain the process of GLYCOLYTIC PATHWAY IN CELLS.**
3. **Elucidate the TCA Cycle & Electron Transport system in mitochondria .**
4. **Calculate the number / amount of ATP RELEASED / USED per cycle .**
5. **Explain the Amphibolic pathways & respiratory quotients .**

NOVEMBER

Unit-V Human Physiology

Chapter-17: Breathing and Exchange of Gases

Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.

LEARNING OUTCOMES :

STUDENTS will be able to :-

1. **Differentiate between different respiratory organs observed in animals .**
2. **Explain & enumerate the Human Respiratory System explaining the breathing mechanism .**
3. **Define respiratory volumes .**
4. **Discuss & elucidate the various Respiratory disorders observed .**

Chapter-18: Body Fluids and Circulation

Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.

LEARNING OUTCOMES :

STUDENTS will be able to :-

5. **Give the composition of the Blood**
6. **Differentiate between the various blood groups seen .**
7. **Explain the clotting of blood mechanism in humans .**
8. **Elaborate & draw the structure of Human Heart .**
9. **Define cardiac cycle , cardiac output , ECG , Double Circulation & cardiac activity .**
10. **Elucidate the disorders related to Circulatory system .**

DECEMBER

Chapter-19: Excretory Products and their Elimination

Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.

LEARNING OUTCOMES:

STUDENTS will be able to :-

1. **Difference between . Ureotelic , Uricotelic & ammonotelic organisms .**
2. **Elaborate the Excretory System of humans .**
3. **Explain the urine formation mechanism . & also the Renin-Angiotensin Mechanism in blood.**
4. **Explain the disorders related to the Excretory systems .**

Chapter-20: Locomotion and Movement

Skeletal muscle, contractile proteins and muscle contraction.

LEARNING OUTCOMES:-

STUDENTS will be able to :-

1. **Explain the composition of skeletal muscles .**
2. **Give the structure & composition og the contractile proteins.**
3. **Explain the sliding filament Theory of muscle contraction .**

JANUARY / FEBRUARY

Chapter-21: Neural Control and Coordination

Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse.

LEARNING OUTCOMES :

STUDENTS will be able to :-

1. **Explain the CNS system better .**
2. **Differentiate between CNS & PNS system better .**
3. **Explain the generation of nerve impulse in an Axon .**

Chapter-22: Chemical Coordination and Integration

Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease. Note: Diseases related to all the human physiological systems to be taught in brief.

LEARNING OUTCOMES :-

STUDENTS will be able to :-

4. **Differentiate between various hormonal function & composition of endocrine glands in human body .**
5. **Explain the role of Hormones as messengers & regulators .**
6. **Enumerate the various diseases related to Hormonal imbalances in the body will be discussed**

ASSESSMENT PLANNER 2020-2021

PA 1 **SYLLABUS**

40 MARKS *** Cell: the unit of life.**

- **The living world .**
- **Biological Classification.**

PA2 **SYLLABUS.**

40 MARKS **PHOTOSYNTHESIS IN HIGHER PLANTS.**

- **RESPIRATION IN PLANTS**

SA1/ HALF *** PA 1 SYLLABUS +**

THEORY / PRACTICAL *** plant kingdom**

- **Animal kingdom**

70/30 *** morphology of flowering plants**

Biomolecules .

- **Cell Cycle & Cell Division .**
- **Structural organization of animals .**
- **Plant growth Hormones ,**

SA2 **FULL SYLLABUS TO BE STUDIED .**

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SUBJECT - BUSINESS STUDIES

APRIL- CHAPTER 1
EVOLUTION AND FUNDAMENTALS OF BUSINESS
LEARNING OUTCOMES:

To acquaint the history of trade and commerce in India, Understand the meaning of business with special reference to economic and non economic activities, Discuss the characteristics of business, Understand the concept of business, profession and employment , Differentiate between business, profession and employment, Appreciate the economic and social objectives of business , Examine the role of profit in business , Understand the broad categories of business activities, Describe the various types of industries, Discuss the meaning of Commerce, Trade and Auxiliaries to Trade, Examine the role of Commerce and Trade, Understand the concept of risk and examine the nature and causes of business risks.

MAY- CHAPTER-2
FORMS OF BUSINESS
ORGANISATION
LEARNING OUTCOMES:

List the different forms of business organisation and understand their meaning , Identify and explain the concept, merits and limitations of sole proprietorship, Identify and explain the merits and limitations of partnership firm , Understand the types of partnership, State the need for registration of a partnership firm , Discuss the types of partners, Identify and explain the concept, merits and limitations of cooperative societies, Understand the types of cooperative societies , Define and explain the merits and limitations of private and public companies , Understand the meaning of one person company , Distinguish between private company and public company, Highlight the stages in the formation of a company , Discuss the important documents used in the various stages in the formation of a company.

JULY- CHAPTER 3
PRIVATE, PUBLIC AND GLOBAL
ENTERPRISES
CHAPTER 4
BUSINESS SERVICES
LEARNING OUTCOMES

Develop an understanding of Private sector and Public sector enterprises, Identify and explain the features, merits and limitations of different forms of public sector enterprises, Understand the meaning and types of Business Services , Develop an understanding of different types of bank account , Develop an understanding of different types of services provided by banks, Recall the concept of insurance, Understand the various principles of insurance and Understand the meaning of different types of insurance.

AUGUST- CHAPTER 5
EMERGING MODES OF
BUSINESS

LEARNING OUTCOMES

Give the meaning of e-business, Discuss the scope of e-business, Appreciate the benefits of e-business, Distinguish e-business from traditional business, Understand the concept of outsourcing , Examine the scope of outsourcing, Appreciate the need of outsourcing.

SEPTEMBER- CHAPTER 6

SOCIAL RESPONSIBILITY OF BUSINESS AND BUSINESS ETHICS

LEARNING OUTCOMES

State the concept of social responsibility , Examine the case for social responsibility , Identify the social responsibility towards different interest groups, Appreciate the role of business in environment protection, State the concept of business ethics.

OCTOBER- CHAPTER 7

SOURCES OF FINANCE

LEARNING OUTCOMES

State the meaning ,nature and importance of Business Finance. Classify the various sources of finance into owners funds, Understand the meaning of Global depository receipts, American depository receipts and Indian depository receipts , Discuss the concept of debentures , loans from financial Institutions and commercial banks , trade credit and inter corporate deposits, distinguish between owner's funds and borrowed funds.

NOVEMBER- CHAPTER- 8

SMALL BUSINESS

LEARNING OUTCOMES

Understand the concept of Entrepreneurship Development, Intellectual Property Rights , Discuss the role of small business in India, Appreciate the various government schemes and agencies for development of small scale industries . NSIC and DIC with special reference to rural and backward areas.

DECEMBER- CHAPTER- 9

INTERNAL TRADE

LEARNING OUTCOMES

State the meaning and types of internal trade, Appreciate the services of wholesalers and retailers, Explain the different types of retail trade , Highlight the distinctive features of departmental stores ,chain stores and mail-order houses.

JANUARY- CHAPTER-10

INTERNATIONAL TRADE

LEARNING OUTCOMES

Understand the concept of international trade, Descibe the scope of International trade to the nation and business firms, State the meaning of World Trade Organisation , Discuss the objectives of World Trade Organisation in promoting international trade.

FEBRUARY- REVISION

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SUBJECT - POLITICAL SCIENCE

UNIT 1 CONSTITUTION APRIL			
SNO	**ACTION VERB**	**OBJECTIVE**	**CONDITION**
	The student will be able to:		
1	**Understand**	**The making of the Constitution**	**By enacting the process after studying the lesson.**
2	**Identify**	**The philosophy behind it**	**By defending the principles enshrined in the Constitution after studying the lesson**
3	**Distinguish**	**Between Fundamental Rights and Directive Principles of State Policy**	**By applying the information acquired to concrete situations after studying the lesson.**
4	**Describe**	**The process of amendment**	**By getting clarity about the different types of majorities required and the reason behind it.**
UNIT 2 ELECTION AND REPRESENTATION MAY			
1	**Distinguish**	**Between different methods of representation followed in the world**	**By using examples from elections in India**
2	**Suggest**	**Electoral reforms needed in India**	**By realizing the need to be proactive after studying this topic**
3	**Evaluate**	**The importance of free and fair elections in a democracy**	**By understanding their role as citizens after studying this chapter.**
UNIT 3 EXECUTIVE MAY			
1	**Define**	**Parliamentary and presidential forms of governments**	**By identifying features of both systems, they will be able to classify governments**
2	**Recognize**	**The difference between the political and permanent executive**	**By enabling them to know about a career option and encouraging them to aspire for the civil services.**

3	**Analyze**	**The relation between the Prime Minister and President in India**	**By getting a critical understanding of a concept, helping them to compare between the Indian and American systems.**
4	**Comprehend**	**The many gaps between theory and practice**	**By linking theory with practice and debating on issue after studying this lesson.**
5	**Make**	**Film/power-point presentation on any topic**	**By doing a Group Activity**
UNIT 4 LEGISLATURE MAY			
1	**Differentiate**	**Between unicameral and bicameral legislatures**	**By identifying the merits and demerits of both types of legislatures.**
2	**Examine**	**The role played by Parliament**	**By discussing the functioning of government in the light of information gained.**
3	**Understand**	**The role played by the parliament**	**By organizing a Mock Parliament**
UNIT 5 JUDICIARY JULY			
1	**Evaluate**	**The need for an independent judiciary**	**By helping students to comprehend means adopted to make the judiciary independent and how.**
2	**Illustrate**	**The structure of the judiciary and its functions.**	**By enabling them to comprehend the fact that it was a single integrated one.**
3	**Discover**	**The role played by judicial activism**	**By categorizing the negative and positive features of judicial activism after this lesson is taught.**
UNIT 6 FEDERALISM JULY			
1	**Assemble**	**Prior learnt information to identify features of government they are familiar with.**	**By classifying this information into unitary and federal features.**
2	**Analyze**	**Information to recognize that the Indian system of federalism has a unitary bias.**	**By helping students to identify issues of conflict from magazines and newspapers and discuss them.**
3	**comprehend**	**The ideas of cooperative federalism and competitive federalism.**	**By giving them the capacity to extend their information and identify them from contemporary politics.**

UNIT 7 LOCAL GOVERNMENT AUGUST			
1	**Recall**	**Previous information on local governments and need for local governments**	**By enabling students to enact a gram sabha situation.**
2	**Discover**	**Changes incorporated by the 73rd and 74th Amendment Acts**	**By enabling students to gauge whether the local bodies are successful or not.**
UNIT 8 POLITICAL THEORY SEPTEMBER			
1	**Explain**	**The meaning of political theory**	**By emphasizing the importance of ideas of political philosophers to human activity.**
2	**Explain**	**The importance of political theories**	**By justifying human actions using ideas learnt and evaluating situations using the knowledge.**
UNIT 9 AND 10 LIBERTY AND EQUALITY OCTOBER			
1	**Interpret**	**The ideas of liberty and equality**	**By enabling them to discover the idea from a perspective whereby they are able to analyze situations from their own lives**
2	**Combine**	**The two ideas of liberty and equality**	**By providing them a broader viewpoint of these ideas**
3	**Co-relate**	**The two ideas from real situations**	**By presenting street plays, cartoons, short films, poetry etc. to project these ideas.**
UNIT11 AND 12 JUSTICE AND RIGHTS NOVEMBER			
1	**Synthesize**	**The ideas of justice with equality and liberty**	**By applying knowledge gained earlier to debate issues of conflict they see around them.**
2	**Classify**	**Types of rights**	**By discussing their relevance to democratic states.**
UNIT 13 AND 14 CITIZENSHIP AND NATIONALISM			

DECEMBER			
1	**Evaluate**	**The ideas of citizenship and nationalism**	**By helping them to relate this information to their role as a citizen.**
2	**Differentiate**	**Between citizens and non-citizens and refugees and also the ideas of national citizenship and global citizenship**	**Making a project on these issues to understand the implications of these ideas.**
UNIT 15 SECULARISM JANUARY			
1	**Justify**	**The need to be secular in a multi-cultural society**	**By undertaking a study of different religions to identify points common to them to build up understanding.**
2	**Appreciate**	**The richness of the heritage and culture of India.**	**By comparing India with states that do not allow diversity to flourish by following policies of assimilation using a uniform culture,**
3	**Analyze**	**The reason why Constitution-makers chose to be secular.**	**By reading debates that took place in the Constituent Assembly and discussing them.**
UNIT 16 DEVELOPMENT FEBRUARY			
1	**Describe**	**The different methods of development**	**By analyzing why India chose the idea of a mixed economy.**
2	**Distinguish**	**Between the different methods of development**	**By discussing the merits and demerits of the methods.**
3	**Evaluate**	**Which would be more relevant to India and whether there are alternatives?**	**By debating the issue with cogent reasons.**
4.	**Create**	**A Project on a topic of their choice**	**under the supervision of the teacher.**

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SUBJECT - HISTORY

Learning Outcomes

APRIL

From the beginning of time

1. **Students should know the periodisation of history Natural , Social _ Economic and Political .**
2. **Students should understand about human evolution.**
3. **It is important for young learners to understand how communication and modern languages came into existence.**
4. **Students should also know about the importance of agriculture to start a settled life.**

Writing and City Life

1. **What factors were responsible for the beginning of first human civilization in modern day Iraq between the Euphrates and Tigris river.**
2. **How ancient Sumerians developed Astronomy .Dating around 1800 BCE are tablets with multiplication and division tables , square and square root tables and tables of compound interest as well as modern calendar the division of year in 12 months according to the revolution of the moon around the earth of the moon around earth .**
3. **How Mesopotamia developed the first script in the world .**
4. **The vibrant urban life that gave birth to a society establishing trading link as far as Indus Valley Civilization or Meluha as it was known in Mesopotamia .**

MAY

An Empire Across Three Continents

1. **Learners should know the role played by the Roman Enpire in truly connecting the East and West.**
2. **Learners must know some of the earliest and worst slavery by the Romans on an Industrial scale.**
3. **Students must also know the emphasis on literacy in the Roman State .**
4. **It is important to understand the large scale economic expansion in the European Continent by establishing factories and mines.**

Central Islamic Lands

1. **It is necessary to know about the rise and expansion of Islam .**
2. **Students must know about the social life of Muslims and Non Muslims respectively in the Caliphate .**
3. **How many great Islamic scholars rose to prominence and world fame during Abbasid period .**
4. **The important role played by Arabs in a post Roman world to diffuse knowledge by translating works of Greeks ,Persians ,Romans and Indians.**

JULY

The Three Orders

1. **Students must know about the life under the theocratic rule of Catholic Church .**
2. **How the European society was exploited on the basis of the Three Orders in the Middle Ages.**
3. **The advancements made by Europeans in Agricultural Technology in the form of Iron Tipped plough, and Crop Rotation.**
4. **It is very important to know about the political changes that came in the end of the middle ages and gave birth to nationalism and end of feudal order.**

AUGUST

Changing Cultural Traditions

1. **The beginning of Renaissance in Italian City States which led to free thinking.**
2. **The revival of Italian City states and their interest in the knowledge of ancient Greek and Romans.**
3. **How universities became a centre of free speech , thinking and rational ideas.**
4. **How humanism became topic of interest for those who believed in the potential and capability of human being as a divine being.**

SEPTEMBER

The Industrial Revolution

1. **The reason behind the beginning of modern Industrial Revolution .**
2. **The Industrial landscape and change in the social and economic life of people.**
3. **How Industrial revolution gave birth to towns, trade and finance.**
4. **Debates on industrial revolution that how it adversely affected and exploited the life of people.**

OCTOBER

Displacing Indigenous People

1. **Who are Aborigines ? Why do their rights matter.**
2. **What were the reasons for destruction of their habitat .What problems are they facing today.**
3. **What was the systematic process of land encroachment by Colonists.**
4. **What legal steps are taken by govt of United States and Australia as well as through Constitutional Amendment for their welfare.**

NOVEMBER

1. **Revision**
2. **Assignments**
3. **Class Tests**

DECEMBER

Paths To Modernisation

1. **The rise of modern nation states.**
2. **How Fascism competed with democracy and its end .**
3. **Japan as Asias first modern and Imperial Nation.**
4. **The story of division and Modernisation of Korea.**

JANUARY

1. **Revision**
2. **Assignments**
3. **Class Tests FEBRUARY**

1. **Revision**
2. **Assignments**
3. **Class Tests**

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SUBJECT - COMPUTER SCIENCE

Learning outcomes of class XI for the subject Computer Science for class XI

April

After the classes conducted during April, students will be able to

Chapter : Number System

a. **Distinction between the following number systems**
   i. **Decimal**
   ii. **Octal**
   iii. **Binary**
   iv. **Hexadecimal**
b. **Identification of the validity of number on the basis of number system.**
c. **Conversion of Decimal to**
   i. **Octal**
   ii. **Binary**
   iii. **Hexadecimal**
d. **Conversion of Hexadecimal to**
   i. **Binary**
   ii. **Decimal**
e. **Conversion of Octal to**
   i. **Binary**
   ii. **Decimal**
f. **Conversion of Binary to**
   i. **hOctal**
   ii. **Decimal**
   iii. **Hexadecimal**

May

After the classes conducted during May, students will be able to

Chapter : Python Fundamentals

a. **Understand the need of a programming language**
b. **Understand basic structure to write a simple program**
c. **Able to accept values of following types**
   a. **Int**
   b. **String**
   c. **Float**
d. **Categorization of operators in following categories**
   a. **Relational**
   b. **Logical**
   c. **Mathematical**
   d. **Augmented**
e. **Implement Print statement to print outputs.**

July

After the classes conducted during July, students will be able to

Chapter : Conditional and Iterable Statements

a. Define and understand the need of selection statement
b. Code a condition using following combination of
    i. if else
    ii. if elif
    iii. if if
    iv. if elif if
c. Understand the working of immutable datatypes
d. Implement usage of is,in not in and range() in code

August

After the classes conducted during August, students will be able to

Chapter : Conditional and Iterable Statements Continued

a. To understand the need of iterations statements.
b. Label the parts of following loops
    i. For
    ii. While
c. Implement simple programs to calculate factorial, sum of series , patterns
d. Convert a simple for loop into while loop.

September

After the classes conducted during September, students will be able to

Chapter : Conditional and Iterable Statements Continued

a. Implementation of nested loops.
b. Predict output of the complicated programs involving two to three loops.

Chapter :String manipulations

a. Understand the concept on indexing a string value
b. Differentiate between 0 to n-1 and -1 ,-2
c. Extract the values of string using slicing method

October

After the classes conducted during October, students will be able to

Chapter :String manipulations Continued

a. Apply following inbuilt functions

len(), capitalize(), title(), upper(), lower(), count(), find(), index(), isalnum(), islower(), isupper(), isspace(), isalpha(), isdigit(), split(), partition(), strip(), lstrip(), rstrip(), replace()

Chapter : Lists

a. Need to create list in python
b. Differentiate between mutable and immutable
c. Different types of list usages and syntaxes
    i. Empty
    ii. Mixed
    iii. Numeric
    iv. String

d. **Code to implement following operations in lists**
    i. **Slicing**
    ii. **Adding**
    iii. **Removing**
    iv. **Modifying**
e. **Implement following method len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), min(), max(), sum()**
f. **Code to pack and unpack lists.**

November

After the classes conducted during November, students will be able to

Chapter : Tuples

a. **Need to create tuples in python**
b. **Differentiate between lists and tuples**
c. **Implement following functions/methods – len(), tuple(), count(), index(), sorted(), min(), max(), sum()**
d. **Use the concept of slicing for tuple**

Chapter : Boolean Algebra

a. **Identify and draw AND,OR,NOT gates**
b. **Understand a Boolean expression and verify using truth table.**
c. **State and verify d' morgan theorem .**
d. **Draw a logic gate of a Boolean expression.**

December

After the classes conducted during December, students will be able to

Chapter : Dictionary

a. **Understand the need of dictionary.**
b. **Differentiate between key and value part of dictionary.**
c. **Separate the key and value part of dictionary.**
d. **Implement the following operations on a dictionary**
    a. **Create a dictionary dynamically**
    b. **Modify the key part**
    c. **Modify the value part**
    d. **Print values of dictionary**

January

After the classes conducted during January, students will be able to

Chapter : Dictionary continued

a. Implement methods functions/methods – len(), dict(), keys(), values(), items(), get(), update(), del(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted() copy()
b. Combine the dictionary involving list, tuples and string values

February

After the classes conducted during February, students will be able to

Chapter : Society laws and ethics

a. Technically understand and define

- **i. Cyber Safety**
- **ii.Cyber trolls**
- **iii. Cyber bullying**

b. Define the concept of illegal down loads phishing , intellectual property using examples from real world

c. List the most commonly cyber crimes

d. List the steps involved to decompose E-Waste

Students will be presenting the above-mentioned topics in form of one to one presentation.

Please Note: the rest of the February students will be revising all the topics using application based questions . Learning Outcome will be to familiarize with each part of question paper.

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