

Month	Name of the topic	METHODOLOGY/ACTIVITIES	LEARNING OUTCOMES	WORKING DAYS
March	Flamingo (Poetry) My Mother at 66	<p>Pre-reading activity would be the first step wherein the students would delve deep into the title of the poem and make an interpretation of the title as it indicates the subject and theme.</p> <p>(student-teacher interaction)</p> <p>They would compare the poem with the poem A Photograph. The background of the poet would be discussed. The poem would be read aloud with proper intonation ,rhyme and rhythm.</p> <p>The poem would be explained covering the use of poetic devices</p> <p>Warm up session: Learners would share their knowledge on the importance of a notice (Student- Teacher interaction)</p> <p>The Learners would be asked to speak about a notice they received and they remember still.</p> <p>The teacher would explain what a notice is and its purpose. The standard format of notice writing would be shown in the class. The teacher would discuss in detail what a notice should contain.</p> <p>The wide range of themes and Objectives covered by notice would be discussed with examples</p> <p>Special note on- 5 Ws What Where When Who Whom</p>	<p>They will be able to understand that aging is inescapable and death is the ultimate end of life.</p>	21
	Notice	<p>Students will be able to analyze any NOTICE shown to them on the basis of the knowledge imparted.</p> <p>They will be able to frame notice about any event.</p> <p>They will be able to identify important information in any given notice.</p> <p>Students will be able to use appropriate style and format to write a NOTICE effectively.</p>		

	<p>in a Slum</p> <p>Advertisements- Classifieds/Display</p>	<p>The title of the poem would be open for class interpretation.</p> <p>The poem would be explained covering the use of poetic devices and analyzing the theme points.</p> <p>A visual clipping of advertisements would be shown to the learners and they would interpret it through interaction.</p> <p>(student-student interaction)</p> <p>The concept, format, style and purpose would be explained with examples.</p>	<p>inequalities.</p> <p>They would recognize the purpose of theme and the hidden pathos and nuances of the lines, correlating them with indigenous/ personal experiences. They would be able to build up empathy and sympathy with the prevalent inequalities of the society which rest on financial status and lost opportunities for children.</p> <p>Students will learn persuasive techniques used in advertising. They will use this knowledge to analyze advertising in a variety of sources: print, television, and Web-based advertising. They will also explore the concepts of demographics and marketing for a specific audience.</p>	
April	Flamingo (Prose) Deep Water	<p>The session would begin with an interactive session wherein the teacher would ask the students to discuss about their phobias as related to the theme of the lesson. Difficult words would be discussed.</p> <p>The story outline, theme and values would be discussed by the teacher through a Power Point Presentation.</p>	<p>The learners would be able to realize that fear is mankind's greatest handicap.</p> <p>The students would be able to provide a synopsis of the story. They will be able to analyze the values and thought process of the story. They would be able to identify the insecurity while tackling personal fears and horrors that lurk in the</p>	18

	<p>The Rattrap</p>	<p>The students would be grouped into six for the varied activities, discussions and presentations</p> <p>The session would begin with an interactive stage wherein the students would discuss on the temptations in life on the basis of the theme of the story.</p> <p>The title of the lesson would be opened to the class for interpretation.</p> <p>The background knowledge of the author would be given.</p> <p>The prose would be explained.</p> <p>Difficult words would be listed and explained. The moral of the story would be discussed.</p>	<p>recesses of our mind.</p> <p>They would be able to appreciate the significance of developing personal fears yet rising above them to savour real liberty.</p>	
	<p>Flamingo (Poetry) Keeping Quiet</p>	<p>The session would begin with the study of silence. The teacher would ask the learners to maintain silence and the study the sounds of silence for one minute.</p> <p>The learners would discuss on the sounds and thoughts of silence and relate to the title of the poem.</p> <p>The background of the poet would be given.</p> <p>The poem would be thoroughly explained covering the use of poetic devices. Difficult words would be listed out and discussed.</p> <p>The session would start with the introduction of Keats' poem 'Endymion: A Poetic Romance' based on the classical Greek myth of the love of the Moon Goddess Cynthia, for a young shepherd prince, Endymion.</p> <p>The background of the poet would be given.</p>	<p>The learners would be able to understand the need of the hour to maintain World Peace and cut out the clamour and bloodshed, correlating it with contemporary background and personal experiences.</p> <p>They would be able to learn:</p> <ul style="list-style-type: none"> -A beautiful thing remains beautiful forever - it is like a cozy bower which ensures peace of mind, calm, healthy surroundings and a quiet sleep -worldly life is full of hardships and disappointments because of 	

	<p>A Thing of Beauty</p> <p>The poem would be read aloud, explained and discussed. Difficult Words and the use of poetic devices would be listed out and discussed.</p> <p>The teacher would discuss with examples all kinds of invitations and the method of framing replies.</p>	<p>lack of noble natures</p> <p>A beautiful object is treasured in our mind and provides us eternal and everlasting joy</p> <p>Beauty in all aspects: whether in growth or decay is an endless source of motivation</p> <p>The learners would be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage and relevant vocabulary for a hospitable announcement of an event.</p>	
May	<p>Vistas-The Third Level</p> <p>The learners would interpret the title of the lesson.</p> <p>The background knowledge of the author and his works would be given.</p> <p>They would compare the chapter with The Adventure</p> <p>Difficult words would be listed and explained. The moral of the story would be discussed.</p> <p>The teacher would explain the students the importance of Job Application – that may lead to an interview, discuss the content of application and note the responses on the blackboard/ or discuss through a PPT.</p>	<p>They would be able to familiarize themselves with the suppressed feeling and insecurities of the modern world</p> <p>They would understand that people find peace in finding escape from reality as Charley found a third level and Sam found peace in Galesburg.</p> <p>They would realize that sometimes it is difficult to differentiate between reality and fantasy.</p> <p>The learners will be able to understand the nature and purpose of a Job Application & Bio-Data</p>	19

	Letter Writing: Job Application & Bio-Data		<p>They will be able to examine a variety of letters to determine best layout, content and style.</p> <p>They will be able to develop and produce their own Job application and bio data.</p>	
June	Vistas: The Enemy	<p>The session would start with an interactive session on the services of a doctor.</p> <p>The title of the lesson would be open for class Interpretation The background of the author would be given.</p> <p>The lesson would be explained. The historical background of the story and war related issues would be discussed.</p> <p>Difficult words would be listed out and discussed.</p>	<p>The learners will be able to familiarize themselves with specific background of political enmity.</p> <p>They will be able to identify and make connections between similar situations in own life experiences where our prejudices often hinder our human compassion and empathy for a political enemy.</p> <p>They will be able to understand the significance of professional ethics and social obligation in sensitive times.</p>	15
July	Flamingo (Prose) Indigo	<p>The session would start with a short documentary on Champaran Episode.</p> <p>They would be asked to list few words related to legal procedure.</p> <p>Discussion about Gandhi ji ,the man behind India's independence</p> <p>The title of the lesson would be open to the class for interpretation.</p> <p>The Historic background knowledge of the episode would be given.</p>	<p>They would be able to understand how ordinary people contributed to the freedom movement.</p> <p>In those days what was the attitude of the average Indians living in smaller localities towards advocates of home rule.</p> <p>They understand how Mahatama</p>	22

	<p>(Poetry) Aunt Jennifer's Tigers</p> <p>The prose would be explained. Difficult words would be listed and explained. The moral of the story would be discussed.</p> <p>Pre-reading activity would be the first step wherein the students would delve deep into the title of the poem. The learners would make an interpretation of the title as it indicates the subject and theme. The background of the poet would be discussed. The poem would be read aloud with proper intonation rhyme and rhythm.</p> <p>The poem would be explained covering the use of poetic devices</p> <p>The session would start with a pre-writing activity to create an interest towards writing. The teacher would define what an article is and discuss the purpose of article writing through PPT The different styles, subjects, purpose of article writing would be discussed. The teacher would explain the technique of accumulating ideas, focusing on ideas and facts, planning, organizing, evaluating, structuring and editing. They would be taught the importance and way of producing a finished piece of work with examples. The requirements of the content, beginning, body and end would be focused.</p> <p>Article</p>	<p>Gandhi came forward to secure justice for oppressed people. They understand the value and contribution made by other Indians to the freedom movement</p> <p>They will familiarize themselves with the evils of patriarchy</p> <p>They will be able to empathize with Aunt Jennifer's problems and seek resolution.</p> <p>They will be able to think and produce spontaneous expression in poetic texts to convey a social change.</p> <p>They would discern prevailing inequalities in various guises.</p> <p>The students would develop an interest towards writing. Their planning and organizing techniques would be enhanced. They would be able to research on any subject and derive information from facts and present in the form of a written piece. Their creative writing would be analyzed. The interpreting and evaluative skills would be strengthened.</p>	
August	<p>Report Writing</p> <p>The teacher in the beginning of the session would give students the opportunity to collect information on a declared issue before writing the report.</p> <p>During the session students will go through the process of</p>	<p>The learners will be able to discuss the purpose of various reports. They will be able to describe the kinds of information to include in specific reports and identify tips</p>	19

	ASL	<p>developing ideas and collecting and organizing information. They will then use the information to create the first draft of an imaginary report. They will then focus on some key areas of good writing and try to redraft their reports with these in mind.</p> <p>(Inductive Learning)</p>	<p>for writing a clear, concise, and useful report.</p> <p>They will recognize and address patterns and trends and be able to explain how the tone of a report can affect worker morale and motivation.</p>	
September	Revision Term 1 Exam			22
October	<p>Vistas - Should Wizard Hit Mommy?</p>	<p>The session would start with an interaction on Are nursery rhymes and fairy tales a reflection of reality?</p> <p>The title of the lesson would be open for interpretation.</p> <p>The background of the author would be given. The lesson would be explained.</p> <p>Difficult words would be listed out and discussed.</p> <p>The session would start with an interaction on appearances are deceptive.</p> <p>The title of the story would be open for interpretation.</p> <p>The background of the author would be given. The prose would be read aloud and discussed.</p> <p>The format, rules, technique would be discussed with examples.</p>	<p>The learners would be able to familiarize with specific background while tackling personal choices on security, familiarity and happiness.</p> <p>They would be able to make connections between similar situations in personal experiences.</p> <p>They will be able to appreciate the timeless significance of universal fears of loss and gain, of happy ending and parenting issues.</p> <p>The learners would be able to fight out their loneliness, depression and disappointment.</p> <p>They would accept the physically challenged people positively in their life and expand their social interaction.</p> <p>They would be able to build up optimism and self confidence.</p>	19
	On the face of it			

	Letter to editor	The usage of language would be taught and students would be assigned written tasks.	The learners would be able to organize and express their thoughts freely. They would develop an interest towards creative writing thus enhancing their writing skills.	
November	Evans Tries an O-Level Arts Integrated Activity	The session would start with an interaction on Would Education in the jails help in refining prisoners. The title of the lesson would be open for class interpretation. The background of the author would be given. The lesson would be explained and discussed. Difficult words would be listed out and discussed. Virtual Travel Brochure You are enchanted to explore the beauty of nature after reading “A Thing of Beauty” and plan to visit Arunachal Pradesh- The Land of Rising Sun. On visiting there you found yourself amidst the nature’s treasure trove and decide to create a Virtual Travel Brochure to promote tourism in the state.	The learners will be able to familiarize themselves with specific background of the cat and mouse role of the police and the criminal. They will be able to identify and make connections between similar situations in their own country where each of us witness the dereliction of duty of the law keepers and their complacent laxity. They will be able to research and know the details of the place they have visited or they might want to visit. If they are writing about a place they have visited they will be recalling interesting facts, sensory details and information about their trip. They will better understand the history, culture and geography of a place worth visiting.	07
December	ASL First Pre- Board Exam.			16
January	Second Pre- Board Exam.			18

Physical Education

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
March	Planning in Sports Sports & Nutrition	Lecture Method Question Answer Technique Waist and Hip ratio calculation of 10 students and graphical representation of the data. Online class PPT Short Videos Test on Google class Room	<ul style="list-style-type: none"> ➤ Meaning& Objectives OfPlanning ➤ Various Committees & its Responsibilities ➤ Tournament – Knock-Out, League Or Round Robin &Combination ➤ Procedure To Draw Fixtures ➤ Balanced Diet & Nutrition: Macro & MicroNutrients ➤ Nutritive & Non-Nutritive Components OfDiet ➤ EatingForWeightControl ➤ ThePitfallsofDieting,Foodintolerance&Food Myths 	21
April	Physical Education & Sports for CWSN (Children with Special Needs - Divyang	Draw a labelled diagram of field & equipment (Rules, Terminologies & Skills). Online class PPT Short Videos Test on Google class Room	<ul style="list-style-type: none"> ➤ Concept of Disability &Disorder ➤ TypesofDisability,itscauses&nature ➤ Types of Disorder, its cause ➤ DisabilityEtiquette's ➤ Strategies to make Physical Activities assessable for children with specialneed. 	18
May	Children & Women in Sports	Enlist the famous female athletes with their games and records. Online class PPT Short Videos Test on Google class Room	<ul style="list-style-type: none"> ➤ Motor development & factors affectingit ➤ Exercise Guidelines at different stages of growth &Development ➤ CommonPosturalDeformities ➤ Sports participation of women inIndia 	19

June	Test & Measurement in Sports	<p>Write down the Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.</p> <p>Online class PPT Short Videos Test on Google class Room</p>	<ul style="list-style-type: none"> ➤ Motor Fitness Test ➤ Measurement of Cardio Vascular Fitness ➤ Rikli & Jones - Senior Citizen Fitness Test 	15
July	Physiology & Injuries in Sports	<p>Power Point Presentation on soft tissue injury and joint injury and bone injury</p> <p>Online class PPT Short Videos Test on Google class Room</p>	<ul style="list-style-type: none"> ➤ Physiological factor determining component of Physical Fitness ➤ Effect of exercise on Cardio Respiratory System ➤ Effect of exercise on Muscular System ➤ Sports injuries: Classification ➤ First Aid – Aims & Objectives 	22
August	Biomechanics & Sports	<p>Prepare list of all muscles in human body and all joints</p> <p>Online class PPT Short Videos Test on Google class Room</p>	<ul style="list-style-type: none"> ➤ Meaning and Importance of Biomechanics in Sports ➤ Types of movements ➤ Newton's Law of Motion & its application in sports 	19
September	Revision And First Term Examination			22
October	Psychology & Sports	<p>Pictorial Presentation of circuit Training for strength and endurance.</p> <p>Online class PPT Short Videos Test on Google class Room</p>	<ul style="list-style-type: none"> ➤ Personality; its definition ➤ Motivation, its type & techniques ➤ Meaning, Concept & Types of Aggression in Sports ➤ Strength – Definition, types & methods of improving Strength. ➤ Endurance – Definition, types & methods to develop Endurance. ➤ Speed – Definition, types & methods to develop Speed. 	19

	Training in Sports		<ul style="list-style-type: none"> ➤ Flexibility – Definition, types & methods to improve flexibility ➤ Coordinative Abilities – Definition & types 	
November	Yoga & Lifestyle	Draw labelled diagram of any Asanas, for each lifestyle disease. Online class Through Zoom PPT Short Videos	<ul style="list-style-type: none"> ➤ Asanas as preventive measures <ul style="list-style-type: none"> ☐ ➤ Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardha Matsyendrasana <ul style="list-style-type: none"> ☐ ➤ Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pawanuktasana, Ardha Matsyendrasana <ul style="list-style-type: none"> ☐ ➤ Asthma: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana <ul style="list-style-type: none"> ☐ ➤ Hypertension: Tadasana, Vajrasana, Pawanuktasana, Ardha Chakrasana, Bhujangasana, Shavasana 	07
December	FIRST PRE-BOARD			16
January	SECOND PRE-BOARD			18

Economics

Month	Sub Topics	Audio Visual Inputs	Methodology /Activities/ Assignment/ Discussion/ Project	Learning Outcomes	Working Days
March	<p>What is Macroeconomics? Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.</p> <p>Circular flow of income (two sector model); Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.</p> <p>Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) - at market price, at factor cost; Real and Nominal GDP; GDP and Welfare</p>	Related Video	<p>Online classes (Zoom /Google class room) -Power point presentations -Short videos. - chalk board method.(online) -lecture method . -Explanation with examples</p> <p>Taking an example of a Bakery Shop, Students will be asked to select any bakery product and will be required to calculate: 1) Intermediate cost 2) Final cost Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> 1. Define the basic concepts of national income. 2. Enlist various concepts to be remembered while calculating the national income 3. Recognize the formulae for three methods of calculating the national income. Apply various methods in estimation of national income. 	21
April	<p>Money - meaning and supply of money - Currency held by the public and net demand deposits held by commercial banks. Money creation by the commercial banking system. Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank,</p>	Related video on topic Money and Banking	<p>Online classes (Zoom /Google class room) -Power point presentations -Short videos. - chalk board method.(online) -lecture method . -Explanation with examples</p> <p>Perform a group activity where few students have to play the role of the central bank and commercial bank while rest of the students have to act as public. Now explain how RBI controls credit. (Creative thinking skills/Problem solving)</p>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> 1. Define barter system, money supply, commercial bank, central bank. 2. Explain drawbacks of barter system, functions of money, central bank and commercial bank . 	18

			Discussion of Board Papers, Sample Papers and Marking Scheme		
May	<p>Aggregate demand and its components. Propensity to consume and propensity to save (average and marginal). Short-run equilibrium output; investment multiplier and its mechanism. Meaning of full employment and involuntary unemployment. Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply.</p>	Related Video on Aggregate demand and its components.	<p>Taking a real life example students will be asked to explain the impact of investment.</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> 1. Define Aggregate Demand and Aggregate Supply 2. List out the components of AD and AS. 3. Identify the formulae of both the concepts. 4. Draw and explain the diagrams of AD, AS, Saving, Investment, APC, APS, MPC, MPS, Consumption Function and Saving Function. 5. Find out inflationary gap and deflationary gap in the economy. 	19
June	<p>Government budget - meaning, objectives and components. Classification of receipts - revenue receipts and capital receipts; classification of expenditure – revenue expenditure and capital expenditure. Measures of government deficit - revenue deficit, fiscal deficit, primary deficit, their meaning.</p>	Related Video	<p>Prepare a short project on how government can use the budgetary policies in reducing inequality of income in the economy. (Creative thinking skills)</p> <p>(HINT: PDS, Subsidy, Rationalization of Taxes)</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> 1. Define budget, objectives and structure of budget 2. Explain the difference between Revenue budget and Revenue receipts, Capital budget and Capital receipts 3. Explain difference between Revenue expenditure and Capital expenditure 4. Explain Primary deficit, Fiscal deficit and its implications. 	15

July	Balance of payments account - meaning and components; Foreign exchange rate - meaning of fixed and flexible rates and managed floating.	Related Video	<p>Online classes (Zoom /Google class room)</p> <ul style="list-style-type: none"> -Power point presentations -Short videos. - chalk board method.(online) -lecture method . -Explanation with examples <p>Group discussion by creating a real theme of international market in the classroom.(covering the impact of changes in the exchange rate)</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will be able to:</p> <ol style="list-style-type: none"> 1. Define Balance of trade and Balance of payments. 2. Distinguish between current account and capital account 3. Compare the contrast between autonomous items and accommodating items 4. Distinguish between fixed exchange rate system, floating exchange rate system and managed floating 5. Explain how foreign exchange rate is determined in a free market. 6. Draw the diagram of exchange rate determination in a flexible exchange rate system. 	22
	<p>A brief introduction of the state of Indian economy on the eve of independence.</p> <p>Common goals of Five Year Plans.</p> <p>Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy, etc.), industry (industrial licensing, etc.) and foreign trade.</p> <p>Economic Reforms since 1991: Features and appraisals of liberalisation, globalisation and privatisation (LPG policy); Concepts of demonetization and GST</p>	Related Video	<p>Online classes (Zoom /Google class room)</p> <ul style="list-style-type: none"> -Power point presentations -Short videos. - chalk board method.(online) -lecture method . -Explanation with examples <p>Prepare a comparative report on the methods of agriculture in India & US.</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will:</p> <ol style="list-style-type: none"> 1. Become familiar with the state of the Indian economy in 1947, the year of India's independence. 2. Understand the factors that led to the under development and stagnation of the Indian economy 3. Elaborate and explain demographic profile, occupational structure and infrastructure on the eve of independence. 	

August	Poverty- absolute and relative; Main programmes for poverty alleviation: A critical assessment	Related Video	<p>Online classes (Zoom /Google class room) -Power point presentations -Short videos. - chalk board method.(online) -lecture method . -Explanation with examples</p> <p>Find out the most vulnerable group in your city.. Collect the details for discussion in the classroom covering the problems faced by such people and suggest remedies to them. (Interpersonal skill and empathy skill)</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will:</p> <ol style="list-style-type: none"> 1. Learn about various attributes of poverty 2. Comprehend the diverse dimensions relating to the concept of poverty 3. Critically appreciate the way poverty is estimated. 	19
	Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming	Related Video	<p>Pick any of the Government scheme and do its analysis for the rural development. (Critical thinking skills (thinking about other possible solutions) and empathy, effective communication)</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will:</p> <ol style="list-style-type: none"> 1. Understand rural development and major issues associated with it 2. Appreciate how crucial the development of rural areas is for India's overall development 3. Understand the critical role of credit and marketing systems in rural development 4. Learn about the importance of diversification of productive activities to sustainlivelihoods. 5. Understand the significance of organic farming in sustainable development. 	
	Human Capital Formation: How people become resource; Role of human capital in economic development; Employment: Formal and informal growth; problems and policies	Related Video	<p>Prepare a report giving your personal views on the topic " Education is still a Challenge". (Effective communication skills during class discussion and gathering information from different people)</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p> <p>Online classes (Zoom /Google class room) -Power point presentations -Short videos.</p>	<p>After reading this material the learners will:</p> <ol style="list-style-type: none"> 1. Learn about Human Resources, Human Capital formation and Human Development. 2. Have understood the links between investment in Human Capital,Economic growth and Human Development 3. Have understood the need for 	


			<p>- chalk board method.(online) -lecture method . -Explanation with examples</p> <p>Suggest the methods of reducing the informal employment and also mention how it can be beneficial for the country. (Effective communication, critical thinking, analyzing the difference between both the sectors)Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>government spending on education and health 4. Have learnt about the state of India's educational attainment</p> <p>After reading this material the learners will: 1. Understand a few basic concepts relating to employment such as economic activity, worker, workforce and unemployment2. Understand the nature of participation of men and3. Know the nature and extent of unemployment4. Assess the initiatives taken by the government in generating employment opportunities in various sectors</p>	
September	1stTerm Examinations				22
October	<p>Infrastructure: Meaning and Types: Case Studies: Health: Problems and Policies- A critical assessment;</p> <p>Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming</p>	Related Video	<p>Art Integrated Learning: Through a pictorial presentation or PPT show how your city is at present and how you see it as your DREAM CITY.</p> <p>(Effective communication and Critical thinking (analyzing and deciding the</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p> <p>Group discussion on the concept of River Pollution in Pretext of religious ceremonies and industrial waste.</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme</p>	<p>After reading this material the learners will:</p> <p>1. Understand the main challenges India faces in the area of social and economic infrastructure. 2. Understand the role of infrastructure in economic development 3. Understand the role of health as a critical component of infrastructure 4. Understand the problems and prospects of the energy and health sectors 5. Understand the health infrastructure of India.</p>	19

November	<p>A comparison with neighbors: India and Pakistan India and China Issues: growth, population, sectoral development and other Human Development Indicators</p>	Related Video	<p>Prepare a pie chart on the expenditure pattern of India , China and Pakistan.</p> <p>Discussion of Board Papers, Sample Papers and Marking Scheme Project Presentation</p>	<p>After reading this material the learners will:</p> <p>1. Learn and figure out comparative trends After reading this material the learners will:</p> <p>1. Learn and understand the concept of environment 2. Analyze the cause and effects of environment degradation and resource depletion 3. Understand the nature of environmental challenges facing India.</p> <p>4. Relate environmental issues to the larger context of sustainable development. in various economic and human development indicators of India, China and Pakistan. 2. Assess the strategies that these countries have adopted to reach their present state of development.</p>	7
December	PREBOARDS 1				16
January	PREBOARDS 2				18

PHYSICS

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
March	Unit I: Electrostatics Electric Charges; Conservation of charge, Coulomb's law- force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside). Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarisation,	1.Board teaching. 2.showing same charges repel & opposite charge attract each other using ebonite rod. 3.lecture method with example.	To acquaint the History of charge and potential and application .	21
April	capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor. Unit II: Current Electricity Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and nonlinear), electrical energy and power, electrical resistivity and conductivity.	1.on line teaching 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(ohm's law) 6.lecture method through white board. 7.revision .	1.Understand the meaning of capacitor with special reference to practical activities. 2.Discuss the characteristics of flowing current.	18

May	<p>temperature dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel. Kirchhoff's laws and simple applications. Wheatstone bridge, metre bridge. Potentiometer - principle and its applications to measure potential difference and for comparing EMF of two cells; measurement of internal resistance of a cell.</p>	<p>1.on line teaching 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(to find resistance using meter bridge.) 6.lecture method through white board. 7.revision .</p>	<p>1.Understad the concept of combination of cells.,. 2.Differentiate between meter bridge and potentiometer..</p>	19
June	<p>Unit III: Magnetic Effects of Current and Magnetism Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight and toroidal solenoids, force on a moving charge in uniform magnetic and electric fields.</p> <p>Force on a current-carrying conductor in a uniform magnetic field. Force between two parallel current-carrying conductors-definition of ampere. Torque experienced by a current loop in uniform magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter. Current loop as a magnetic dipole and its magnetic dipole moment.Magnetic dipole moment of a revolving electron. magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements.</p>	<p>1.on line teaching 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(to find resistivity of wire using meter bridge.) 6.lecture method through white board. 7.revision .</p>	<p>1.Understand the broad categories of magnetic effect of current carrying conductor,solenoid and torroid in practical life.. 2. showing properties of earth' magnetic field.</p>	15
July	<p>Unit IV: Electromagnetic Induction and Alternating Currents Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Eddy currents.</p>	<p>1.on line teaching 2.PPT 3.Short videos. 4.test through google</p>	<p>Discuss the meaning of induced emf and induced current. 2.Discuss the meaning of</p>	22

	Self and mutual induction. Alternating currents, peak and RMS value of alternating current/voltage; AC generator and transformer.	drive. 5.practical through animation.(to find internal resistance of cell using potentiometer..) 6.lecture method through white board. 7.revision .	different types of generator. 3.Examine the role of alternating current.	
August	<p>reactance and impedance; LC oscillations (qualitative treatment only), LCR series circuit, resonance; Unit V: Electromagnetic waves Electromagnetic waves and their characteristics (qualitative ideas only). Transverse nature of electromagnetic waves. Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.</p> <p>Unit VI: Optics Refraction of light, total internal reflection and its applications, optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lensmaker's formula. Magnification, power of a lens, combination of thin lenses in contact, combination of a lens and a mirror. Refraction and dispersion of light through a prism. Optical instruments : Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.</p>	<p>1.on line teaching 2.PPT 3.Short videos. ART BASED ACTIVITY: Debate and discussion on how to transmit electric power using transformer by drawing labeled diagram.</p> 	<p>1.Discuss the meaning of different types of electromagnetic waves. 3.Examine the role of and application of EMW.</p>	19
September	REVISION & FIRST TERM EXAM	Revision		22
October	Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit,	<p>1.Short notes. 2.PPT 3.Short videos. 4.test through google drive. 5.practical through animation.(to find focal</p>	<p>1.Understand the concept of behaviour of light in daily life. 2.Examine the nature and causes of different phenomenon of nature.</p>	19

	<p>width of central maximum.</p> <p>Unit VII: Dual Nature of Matter and Radiation Dual nature of radiation. Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Matter waves-wave nature of particles, de Broglie relation.</p> <p>Unit VIII: Atoms and Nuclei Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum. Composition and size of nucleus,</p>	<p>length of convex lens, and find refractive index of liquid.)</p> <p>6.lecture method through white board.</p> <p>7.revision .</p>		
November	<p>Mass-energy relation, mass defect; nuclear fission, nuclear fusion.</p> <p>Unit IX: Electronic Devices Energy bands in solids (Qualitative ideas only) conductor, insulator and semiconductor; semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier; I-V characteristics of LED, photodiode, solar cell.</p>	<p>1.Short notes.</p> <p>2.PPT</p> <p>3.Short videos.</p> <p>4.test through google drive.</p> <p>5.practical through animation.(to find refractive index of glass using prism..)</p> <p>6.lecture method through white board.</p> <p>7.revision</p>	Understand the concept of modern and digital physics.	7
December	First pre board			16
January	Second pre board.			18

Computer Science-Python(083)

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
March	❖ Revision Tour Of XI	<ul style="list-style-type: none"> • Programming practices like to input/output demonstration in python for Two number swapping, area of circle, square etc • Demonstrate Various Searching Sorting technique using List , Tuple in Python • By Showing dictionaries ,implement code for student marks table in python • Showing different iterative logics to perform various programming problems 	<ul style="list-style-type: none"> • After clearing the doubts & acknowledge python basics, Learners will able to design basic programming logic to develop program. • Recognize the part of python program where error is being occurred by troubleshooting of python program 	21
April	❖ Function & Recursion	<ul style="list-style-type: none"> • Demonstration of Function in python • Calling and Defining of function • Recursive Programming approach practically 	<ul style="list-style-type: none"> • Students will get better understanding of of function based code • By Recursion programming code can be reduced to demonstrate function calling. 	18
May	❖ Packages & Library in Python	<ul style="list-style-type: none"> • Importing of package • Creation of package • Built-in package • User defined package • Implementation user defined package in Python programming to design arithmetic calculator 	<ul style="list-style-type: none"> • After acknowledging packages students will get to know how these are using for functions • Students will be able to import their built package and use its functions in code 	19
June	❖ File Handling in Python	<ul style="list-style-type: none"> • Demonstration syntax of various mode to access Binary & Text file in Python using code of problems • Show "How to handle data in Binary file and text file" in Python using built in function like read() ,write() • Demonstrate CSV file and importing in Excel viceversa using python code. • Implement various code on File handling Problems on Binary/Text/CSV file. 	<ul style="list-style-type: none"> • Students would able to design code in python for handling data through file. • Practically ,It is cleared to students that how concept is converted into code in Python in various types of file. 	15
July	❖ File Handling in Python ❖ Introduction to Data Structure	<ul style="list-style-type: none"> • Design various code on importing / exporting data through CSV file Practically. • Demonstration of Data structure concept in python. 	<ul style="list-style-type: none"> • Students will learn to apply filters over data, categories data on the basis of values in CSV file using python code. • Students will learn use of data structure concept . 	22

August	❖ Stack & Queue	<ul style="list-style-type: none"> • Demonstrate Algorithm to implement STACK as LIFO and its operation in python • Demonstrate Algorithm to implement QUEUE as FIFO and its operation in python • Design code in python to implement application on STACK and QUEUE 	<ul style="list-style-type: none"> • Student will learn practically STACK & QUEUE code in python • User choice based python programis designed through various functions on STACK & QUEUE 	19
September	REVISION & EXAM			22
October	❖ Computer Networking	<ul style="list-style-type: none"> • OnlinePresentation on web applications. Include type of network in various structure.. • Demonstration on “How to construct computer Network using Router ,Repeater,switch etc • Prepare an application on working scenarios of various Networking protocols like SMTP ,HTTP,TELNET, etc • Powerpoint presentation on Topology in web application. 	<ul style="list-style-type: none"> • Students will get better understanding of network devices. • Easily recognized the device and their uses in the network. 	19
November	❖ DataBase Development & SQL	<ul style="list-style-type: none"> • Create database online, table in mysql. • Applying different type of queries over the data like: - insert/select/modify/ delete etc. • Online Demonstration of DDL/DML commands in mysql using Bank table. • Providing datatype and its size through database table queries in mysql 	<ul style="list-style-type: none"> • Students now create their database, table and perform different type of task in a table in SQL. • Student connects multiple tables to remove inconstancy in data using SQL. 	7
December	PREBOARD-1			
January	PREBOARD-2			

Entrepreneurship(066)

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
March	Unit-1 Entrepreneurial Opportunities <ul style="list-style-type: none"> • Sensing Entrepreneurial Opportunities • Environment Scanning Problem Identification • Idea fields • Spotting Trends • Creativity and Innovation • Selecting the Right Opportunity 	Direct Teaching Learning Methods: <ul style="list-style-type: none"> - Entrepreneurship Tutoring Interactive Teaching Learning Methods <ul style="list-style-type: none"> - Process – Oriented learning Discussion - Searching Environment problems 	<ul style="list-style-type: none"> • Comprehend the concept and elements of business opportunity • Discuss the process of sensing opportunities • Understand the need to scan the environment • Enlist the various forces affecting business environment • Identify the different idea field <ul style="list-style-type: none"> • Understand the concept of opportunity and market assessment • Appreciate the ways in which trends can be spotted • Understand the process of creativity and innovation • Transform ideas into business opportunities 	21
April	Unit 2: Entrepreneurial Planning <ul style="list-style-type: none"> • Forms of business organization- Sole proprietorship, Partnership, Company • Business Plan: concept, format. • Components: Organisational plan; Operational plan; Production plan; Financial plan; Marketing plan; HR planning 	Practical – Operational Teaching Learning Methods: <ul style="list-style-type: none"> - Business Planning - Starting Business Interactive Teaching Learning Methods <ul style="list-style-type: none"> - Process – Oriented learning Discussion - Business Planning 	<ul style="list-style-type: none"> • Recall the meaning of the various forms of business organization • Understand the characteristics of the various forms of business organization • Understand the difference between a Public and Private Company • Appreciate the reasons for a private company being more desirable • Appreciate the concept and importance of a Business Plan • Describe the various components of Business plan • Differentiate among the various components of Business plan • Develop a Business Plan 	18
May	Unit 4: Enterprise Growth Strategies <ul style="list-style-type: none"> • Franchising: Concept, types, advantages, limitations. • Mergers and Acquisition: Concept, reasons, types. • Reasons for failure of Mergers and Acquisitions. 	Direct Teaching Learning Methods: <ul style="list-style-type: none"> - Watching Official speech - Networking - Mentoring 	<ul style="list-style-type: none"> • Understand the concept of growth & development of an enterprise • Discuss the concept, types, advantages and limitations of franchise • Appreciate growth of business through mergers and acquisitions • Discuss the different types of mergers and acquisitions • Understand the reasons for failure of mergers and acquisitions 	19

June	Unit 3: Enterprise Marketing <ul style="list-style-type: none"> • Marketing and Sales Strategy • Branding, Logo, Tagline • Promotion Strategy • Negotiations - Importance and Methods • Customer Relationship Management • Vendor Management 	Practical – Operational Teaching Learning Methods: <ul style="list-style-type: none"> - Role Playing - Practical Experience 	<ul style="list-style-type: none"> • Discuss the various marketing strategies used in a business • Explain Marketing Mix. • Understand the concept of Branding, Packaging and Labeling • Describe the various methods of Pricing • Discuss the various factors affecting the channels of distribution • Understand the concept and types of sales strategy • Discuss different tools of promotion • Appreciate the objectives and different modes of Advertising • Understand the concept of personal selling, sales promotion, public relations • Discuss the various techniques of sales promotion • Understand the ways of negotiation in business • Understand the importance of Customer Relationship Management in business. • Understand the concept and importance of vendor management in business 	15
July	Revision:- <ul style="list-style-type: none"> • Unit-1 Entrepreneurial Opportunities • Unit 2: Entrepreneurial Planning 	Interactive Teaching Learning Methods <ul style="list-style-type: none"> - Discussion - Doubts 	<ul style="list-style-type: none"> • <u>Recall of topics:-</u> <ul style="list-style-type: none"> • Sensing Entrepreneurial Opportunities • Environment Scanning • Problem Identification • Idea fields • Spotting Trends • Creativity and Innovation • Selecting the Right Opportunity • Forms of business organization- Sole proprietorship, Partnership, Company • Business Plan: concept, format. • Components: <ul style="list-style-type: none"> Organisational plan; Operational plan; Production plan; Financial plan; Marketing plan; HR planning 	22
August	Unit 6: Resource Mobilization <ul style="list-style-type: none"> • Capital Market- Primary and 	Practical – Operational Teaching Learning Methods: <ul style="list-style-type: none"> - Learn investing 	<ul style="list-style-type: none"> • Understand the need of finance in Business • Discuss the various sources of funds required for a firm 	19

	Secondary <ul style="list-style-type: none"> • Stock Exchange- Concept, features, functions and importance • Securities and Exchange Board of India- History, establishment, powers • Angel Investor: Features • Venture Capital: Features, funding. 	<ul style="list-style-type: none"> - Video watching <u>Project Work - I</u> Market Survey <ul style="list-style-type: none"> - Research Project 	<ul style="list-style-type: none"> • Understand the ways of raising funds in primary market • Understand the importance of secondary market for mobilization of Resources • To discuss the relevance of stock exchange for a business enterprise and in the economy. • Understand the role of SEBI in capital market. • Appreciate the Angel Investors and Venture Capitalists as a source of business finance. 	
September	Revision:- <ul style="list-style-type: none"> • Unit 3: Enterprise Marketing • Unit 4: Enterprise Growth Strategies TERM EXAMINATION	Interactive Teaching Learning Methods <ul style="list-style-type: none"> - Discussion - Doubts 	<ul style="list-style-type: none"> • <u>Recall of topics:-</u> • Marketing and Sales Strategy • Branding, Logo, Tagline • Promotion Strategy • Negotiations - Importance and Methods • Customer Relationship Management • Vendor Management • Franchising: Concept, types, advantages, limitations. • Mergers and Acquisition: Concept, reasons, types. Reasons for failure of Mergers and Acquisitions 	22
October	Unit 5: Business Arithmetic <ul style="list-style-type: none"> • Unit of Sale, Unit Cost for multiple products or services • Break even Analysis for multiple products or services • Computation of Working Capital • Inventory Control and EOQ • Return on Investment (ROI) and Return on Equity (ROE) 	Practical – Operational Teaching Learning Methods: <ul style="list-style-type: none"> - Class Practice - Learning from mistakes <u>Project Work - II</u> Business Plan <ul style="list-style-type: none"> - Logo Designing - Branding - Advertisement Designing 	<ul style="list-style-type: none"> • Understand the concept of Unit Cost and Unit Price • Calculate Break-even point for Multiple products and services. • Understand the concept of Inventory Control • Compute the working capital of a business. • Calculate Return on Investment; Return on Equity and Economic Order Quantity 	19
November	Revision (All Units)	Interactive Teaching Learning Methods <ul style="list-style-type: none"> - Discussion - Doubts 		7
December	Pre-Board - I		Knowledge Assessment	16
January	Pre-Board - II		Knowledge Assessment	18

BUSINESS STUDIES (Code No. 054)

MONTH	UNIT/TOPIC	Working days	Methodology	Activity	Learning outcomes
Mar	Part A: Principles and Functions of Management Unit 1: Nature and Significance of Management	21	Related video	Make groups of 5 – 6 students each according to the size of class. Let them run a garment manufacturing company. Assign the following tasks to each group.	
	Management - concept, objectives, and importance			(i) Let group 'A' identify the activities that take place in the company. (ii) Let group 'B' classify these activities into managerial and non-managerial activities. (iii) Let group 'C' identify the planning activities.	Understand the concept of management. Explain the meaning of 'Effectiveness and Efficiency'. Discuss the objectives of management. Describe the importance of management.
	Management as Science, Art and Profession			(iv) Let group 'D' identify the organising activities. (v) Let group 'E' identify the staffing activities.	Examine the nature of management as a science, art and profession.
	Levels of Management			(vi) Let group 'F' identify the directing activities. (vii) Let group 'G' identify the controlling activities.	Understand the role of top, middle and lower levels of management
	Management functions-planning, organizing, staffing, directing and controlling			(viii) Let group 'H' identify the coordinating activities.	Explain the functions of management
	Coordination- concept and importance			The teacher can then summarise these activities and derive appropriate conclusions. The above activity can be done for any sector such as software export house, or an auto company. The teacher should do some	Discuss the concept and characteristics of coordination. Explain the importance of coordination

				preparation in finding out the actual activities with the help of Internet and printed material relevant to the sector which is selected. The students can also be involved in the searching exercise by the teacher.	
	Unit 2: Principles of Management				
	Principles of Management- concept and significance			From business magazines, annual reports, newspapers or internet find out what changes are taking place in companies relating to corporate governance, production practices etc. Prepare a scrapbook. Discuss these cases with your teacher and friends. Prepare a report of the same.	Understand the concept of principles of management. Explain the significance of management principles.
	Fayol's principles of management				Discuss the principles of management developed by Fayol.
	Taylor's Scientific management- principles and techniques				Explain the principles and techniques of 'Scientific Management'. Compare the contributions of Fayol and Taylor.
Apr	Unit 3: Business Environment	18	Online teaching through Zoom: - Case Studies - PPT - Short Videos test through Google Classroom	Select a business enterprise with which you are familiar. From your recollection of current events (events you may have read about in newspapers or magazines or have heard about on television or radio) identify some of the important environmental force, which have had impact on this enterprise.	
	Business Environment- concept and importance				Understand the concept of 'Business Environment'. Describe the importance of business environment

	Dimensions of Business Environment- Economic, Social, Technological, Political and Legal				Describe the various dimensionsof 'BusinessEnvironment'.
	Unit 4: Planning				
	Concept, importance and limitation		Online teaching through Zoom: <ul style="list-style-type: none"> - Case Studies - PPT - Short Videos test through Google Classroom		<ul style="list-style-type: none"> - understand the - concept of planning - limitations and importance of plannning
	Planning process			Interview a local small-business manager about how their objectives are set and the time taken to achieve them. How do their answers compare with what you have learnt in the chapter.	-
					Understand Process of planning
May	Unit 5: Organizing	19			
	Concept and importance			A company, which manufactures a popular brand of toys, has been enjoying good market reputation. It has a functional organisational structure with separate	Understand the meaning and importance of organising

	Organising Process			departments for Production, Marketing, Finance, Human Resources and Research and Development. Lately to use its brand name and also to cash on to new business opportunities it is thinking to diversify into manufacture of new range of electronic toys for which a new market is emerging.	
	Structure of organisation- functional and divisional concept. Formal and informal organisation- concept			<p>Questions:</p> <p>Prepare a report regarding organisation structure giving concrete reasons with regard to benefits the company will derive from the steps it should take.</p>	Understand the structure of Organization- Functional Divisional
	Delegation: concept, elements and importance				Understand the concept of delegation
	Decentralization: concept and importance				Understand the concept of decentralization
June	Unit 6: Staffing	15			
	Concept and importance of staffing		Online teaching through Zoom: <ul style="list-style-type: none"> - Case Studies - PPT - Short Videos test through Google Classroom	A company is manufacturing paper plates and bowls. It produces 100000 plates and bowls each day. Due to local festival, it got an urgent order of extra 50,000 plates bowls. Advise how the company will fulfill its order and which method of recruitment would you suggest.	Understand the concept of Staffing, importance.

	Staffing process				<ul style="list-style-type: none"> • Understand staffing process
	Recruitment process				<ul style="list-style-type: none"> • understand recruitment process
	Selection - process				<ul style="list-style-type: none"> • understand thoroughly selection process
	Training and Development - Concept and importance, Methods of training - on the job and off the job - vestibule training, apprenticeship training and internship training				<ul style="list-style-type: none"> • Aware about types of training • understand the concept of develpt.
	Unit 7: Directing				
	Concept and importance				<ul style="list-style-type: none"> • Thoroughly aware About the concept of Directing.
	Elements of Directing				<ul style="list-style-type: none"> • Awareness of elements of directing

July	Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives	22	Online teaching through Zoom: - Case Studies - PPT - Short Videos test through Google Classroom	In an organisation employees always feel they are under stress. They take least initiative and fear to express their problems before the manager. What do you think is wrong with the manager ?	<ul style="list-style-type: none"> understand the concept of motivation and Maslow need hierarchy theory.
	Leadership - concept, styles - authoritative, democratic and laissez faire				<ul style="list-style-type: none"> understand the concept of leadership , its styles
	Communication - concept, formal and informal communication				<ul style="list-style-type: none"> understand the concept of communication and its types
	Unit 8: Controlling				
	Controlling - Concept and importance			Case study of an organization by setting a standard and measuring the actual performance , comparing it with the standard and find deviations and then students will be asked to suggest the management how the undesirable behaviour can be controlled.	Understand the basic concept of controlling
	Steps in process of control				<ul style="list-style-type: none"> understanding the control process
Aug	Part B: Business Finance and Marketing Unit 9: Financial Management	19	Online teaching through Zoom: - Case Studies - PPT - Short Videos test through Google Classroom		
	Concept, role and objectives of Financial Management		ART INTEGRATED ACTIVITY -	Pick up annual reports of 2 or more companies engaged in the	<ul style="list-style-type: none"> understand the basic concept of financial mgt.

	Financial decisions: investment, financing and dividend- Meaning and factors affecting		Group discussion on recent financial decision taken by banks.	same line of business. You can access this data on the respective websites of the companies and other sources. Compare their capital structures. Analyse the reasons for the difference. You can also use ratio analysis for this. Prepare a report of your findings and discuss it in the class with the help of your teacher.	<ul style="list-style-type: none"> Awareness of three financial decisions
	Financial Planning - concept and importance				<ul style="list-style-type: none"> understand financial planning
	Capital Structure – concept and factors affecting capital structure				<ul style="list-style-type: none"> Awareness of capital structure
	Fixed and Working Capital - Concept and factors affecting their requirements				<ul style="list-style-type: none"> understanding fixed and working cap.
Sep	Revision and Term I examination	22			
Oct	Unit 10: Financial Markets	19	Online teaching through Zoom: <ul style="list-style-type: none"> Case Studies PPT Short Videos test through Google Classroom		
	Financial Markets: Concept, Functions and types				Financial Markets: Concept understanding
	Money market and its instruments				
	Capital market and its types (primary and secondary), methods of floatation in the primary market			Study the wwebsite of Mumbai Stock Exchange, i.e., www.bseindia.com and compile information which you find useful. Discuss it in your class and find out how it can help you should you decide to invest in the stock market. Prepare a report on your findings with the help of your teacher.	<ul style="list-style-type: none"> Functions and types of financial market awareness
	Stock Exchange - Functions and trading procedure				Stock Exchange – Functions awareness
	Securities and Exchange Board of India (SEBI) - objectives and functions				<ul style="list-style-type: none"> SEBI) - objectives and function awareness

	Unit 11: Marketing				
	Marketing – Concept, functions and philosophies				
	Marketing Mix – Concept and elements				Marketing – Concept, functions and philosophies awareness
	Product - branding, labelling and packaging – Concept			Collect ten advertisements appearing in newspapers, magazines etc about recent sales promotional schemes about some consumers durable or non durable products of your choice. Also collect some promotional material about these products written on the package of these products (cartons/wrappers/bottles etc.) and write important features of the scheme in your notebook. Make a presentation in your class about the sales promotional schemes.	Marketing Mix – Concept and elements deep awareness
	Price - Concept, Factors determining price				
	Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations				Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations thorough awareness
Nov	Unit 12: Consumer Protection	7	Online teaching through Zoom: - Case Studies - PPT - Short Videos test through Google Classroom		
	Concept of consumer protection				<ul style="list-style-type: none"> • Concept of consumer awareness
	Consumer Protection Act 1986: Meaning of consumer Rights and responsibilities of			Visit a consumer organisation in your town. List down the various functions performed by it.	Consumer Protection Act 1986: Meaning of consumer <ul style="list-style-type: none"> • Rights and

	consumers Who can file a complaint? Redressal machinery Remedies available				responsibilities of consumers Thorough understanding
Dec	First Pre board				16
Jan	Second Pre Board				18

ACCOUNTANCY (055)

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
March	<p>*Accounting for Partnership Firms - Fundamental</p> <p>*Valuation of Goodwill</p>	Smart Board; Lecture Notes, Zoom Classes PPT, Short Videos Group Discussion	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> *state the meaning of partnership, partnership firm and partnership deed. * describe the characteristic features of partnership and the contents of partnership deed. * discuss the significance of provision of Partnership Act in the absence of partnership deed. * differentiate between fixed and fluctuating capital, outline the process and develop the understanding and skill of preparation of Profit and Loss Appropriation Account. * develop the understanding and skill of preparation profit and loss appropriation account involving guarantee of profits. *develop the understanding and skill of making past adjustments. <p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> * state the meaning, nature and factors affecting goodwill * develop the understanding and skill of valuation of goodwill using different methods. 	21
April	<p>*Change in Profit sharing Ratio</p> <p>*Admission of a Partner</p>	Smart Board; Lecture Notes, Zoom Classes PPT	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> *state the meaning of sacrificing ratio, gaining ratio and the change in profit sharing ratio among existing partners. * develop the understanding of accounting treatment of revaluation assets and reassessment of liabilities and treatment of reserves and accumulated profits by preparing revaluation account and balance sheet. *explain the effect of change in profit sharing ratio on admission of a new partner. * develop the understanding and skill of treatment of goodwill as per AS-26, treatment of revaluation of assets and re-assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet of the new firm. 	18
May	<p>*Retirement a Partner And</p> <p>*Death Of a Partner</p>	Smart Board; Lecture Notes, Zoom Classes PPT	<p>After going through this Unit, the students will be able to:</p> <ul style="list-style-type: none"> *explain the effect of retirement / death of a partner on change in profit sharing ratio * develop the understanding of accounting treatment of goodwill, revaluation of assets and re-assessment of liabilities and adjustment of accumulated profits and reserve on Retirement a Partner. * develop the skill of calculation of deceased partners share till the time of his death. * discuss the preparation of the capital accounts of the remaining partners and the balance sheet of the firm after retirement / Death Of a Partner. 	19

	*Dissolution Of a Partnership Firm		<ul style="list-style-type: none"> * understand the situations under which a partnership firm can be dissolved * develop the understanding of preparation of realisation account and other related accounts. 	
June	Financial Statements of Not for Profit Organization	Smart Board; Lecture Notes, Zoom Classes PPT	After going through this Unit, the students will be able to: <ul style="list-style-type: none"> • state the meaning of a Not-for-profit organisation and its distinction from a profit making entity. • state the meaning of receipts and payments account, and understanding its features. • develop the understanding and skill of preparing receipts and payments account. • state the meaning of income and expenditure account and understand its features • develop the understanding and skill of preparing income and expenditure account and balance sheet of a not-for-profit organisation with the help of given receipts and payments account and additional information 	15
July	Accounting for Share Capital Accounting for Debentures(Issue Of Debenture & Redemption Of Debenture)	Smart Board; Lecture Notes, Zoom Classes PPT	After going through this Unit, the students will be able to: <ul style="list-style-type: none"> * state the meaning of share and share capital and differentiate between equity shares and preference shares and different types of share capital. * understand the meaning of private placement of shares and Employee Stock Option Plan. * explain the accounting treatment of share capital transactions regarding issue of shares. * develop the understanding of accounting treatment of forfeiture and re-issue of forfeited shares. * describe the presentation of share capital in the balance sheet of the company as per schedule III part I of the Companies Act 2013. * explain the accounting treatment of different categories of transactions related to issue of debentures. * develop the understanding and skill of writing of discount / loss on issue of debentures * understand the concept of collateral security and its presentation in balance sheet. * develop the skill of calculating interest on debentures and its accounting treatment. * state the meaning of redemption of debentures. 	22
August	Financial statement of A company & Financial Statement Analysis	Smart Board; Lecture Notes, Zoom Classes PPT Art Integrated Activity	After going through this Unit, the students will be able to: <ul style="list-style-type: none"> * develop the understanding of major headings and sub-headings (as per Schedule III to the Companies Act, 2013) of balance sheet as per the prescribed norms / formats. * state the meaning, objectives and limitations of financial statement analysis. * discuss the meaning of different tools of 'financial statements analysis'. 	19
September	Revision & First Term			22

	Examination			
October	Accounting Ratio Cash Flow Statement	Smart Board; Lecture Notes, Zoom Classes PPT	After going through this Unit, the students will be able to: *state the meaning, objectives and significance of different types of ratios. *develop the understanding of computation of current ratio and quick ratio *develop the skill of computation of debt equity ratio, total asset to debt ratio, proprietary ratio and interest coverage ratio. *develop the skill of computation of inventory turnover ratio, trade receivables and trade payables ratio and working capital turnover ratio. *develop the skill of computation of gross profit ratio, operating ratio, operating profit ratio, net profit ratio and return on investment *state the meaning and objectives of cash flow statement. *develop the understanding of preparation of Cash Flow Statement using indirect method as per AS 3 with given adjustments.	19
November	Tools of Financial Statement Analysis	Smart Board; Lecture Notes, Zoom Classes PPT	After going through this Unit, the students will be able to: develop the understanding and skill of preparation of comparative and common size financial statements.	7
December	Revision & 1 st Preboard			16
January	Revision & 2 nd Preboard			18

MATHEMATICS

MONTH	UNIT/TOPIC	METHODOLOGY/ ACTIVITIES	LEARNING OUTCOME	WORKING DAYS
MARCH	Unit: I Relation and Function Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions, composite functions, inverse of a function. Binary operations.		Students will be able to understand the concept and solve the questions based on the content taught of Relation and Functions.	21
	Unit: I Inverse Trigonometric function Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric functions.	To explore the principal value of function $\sin^{-1}x$ using a unit circle.	Students are able to solve the questions of Inverse Trigonometric Function.	
APRIL	Unit: II Matrix and Determinant Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries). Determinant:- Determinant of a square matrix (up to 3 x 3 matrices), properties of determinants, minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.		Students are able to solve the questions of Matrix and Determinant.	18
MAY	Continuity & Differentiability Functions, derivative of implicit functions. Concept of	To find Analytically the limit of a function $f(x)$ at $x = c$ and	Students are able to solve the questions of Continuity & Differentiability	19

[illegible]

	$\int \frac{dx}{\sqrt{ax^2+bx+c}}, \int \frac{px+q}{ax^2+bx+c} dx, \int \frac{px+q}{\sqrt{ax^2+bx+c}} dx,$ $\int \sqrt{a^2 \pm x^2} dx, \int \sqrt{x^2 - a^2} dx$ <p>Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals, proof and evaluation of definite integrals.</p>		Students are able to solve the questions of Integrals.	
AUGUST	<p>Application of Integrals Applications in finding the area under simple curves, especially lines, circles/parabolas/ellipses (in standard form only).</p> <p>Differential Equations Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables solutions of homogeneous differential equations of first order and first degree.</p>	ART INTEGRAED LEARNING ACTIVITY : STUDY OF SYMMETRY AS A CONCEPT USING ART.	<p>Students are able to find the area bounded under the curve.</p> <p>Students are able to identify a differential equation and solve the questions based on the content taught</p>	19
SEPTEMBER	REVISION AND EXAMINATION			22
OCTOBER	<p>Vector Algebra : Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.</p> <p>Three Dimentional Geometry : Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Distance of a point from a plane.</p>	To verify geometrically that $\vec{c} \times (\vec{a} + \vec{b}) = \vec{c} \times \vec{a} + \vec{c} \times \vec{b}$	Students are able to solve the questions of Vectors.	19

		<p>To measure the shortest distance between two skew lines and verify it analytically.</p> <p>To demonstrate the equation of a plane in normal form</p>	Students are able to solve the questions of Three Dimensional Geometry.	
NOVEMBER	<p>Linear Programming Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems, graphical method of solution for problems in two variables, feasible regions(bound).</p> <p>Probability Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution.</p>	<p>To explain the computation of conditional probability of a given event A, when B has already occurred, through an example throwing a pair of dice</p>	<p>Students are able to solve the questions of Linear Programming.</p> <p>Students are able to solve the questions of Probability.</p>	07
DECEMBER	PRE BOARD 1			16
JANUARY	PRE BOARD 2			18

Biology

Month/Chapters	Topics	Assignment	Learning Outcome	Working days
March 1. Reproduction in Organisms 2. Sexual Reproduction in Flowering Plants	Types of asexual reproduction, Events of sexual reproduction Microsporangium, Mega sporangium, Double fertilization, embryo development	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google. Zoom meeting, PPt, Board Marker, lecture method, short videos and test google.	Students are able to answer different mode of asexual reproduction Students are able to draw diagrams of anther, embryo sac, embryos.	 21
April 3. Human Reproduction 4. Reproductive Health	Male and female reproductive system, embryogenesis Birth control, STDs and ART.	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google. Zoom meeting, PPt, Board Marker, lecture method, short videos and test google.	Students are able to draw diagrams, can answer the process of fertilization Can answer which method prevents from STDs.	 18
May		Zoom meeting, PPt, Board Marker, lecture	Are able to answer the unit of inheritance and the	19

5. Inheritance and Variations	Mendelism, Post mendelism and Mendelian Disorders	method, short videos and test google.	universal law of inheritance	
June 6. Molecular Basis of Inheritance	Central dogma, Gene expression, genetic code	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google.	Are able to answer the genetic material, can differentiate between replication and transcription	15
July 8. Human health and disease	Common diseases, immunity, cancer, drug and alcohol abuse	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google	Can answer, what is cancer? Which antibody is present in mother's milk.	22
August 9. Microbes in Human Welfare	Microbes in industries, medical, sewage treatment and biogas production	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google	Able to answer the components of biogas, activated sludge and inoculums.	19
September 10. Principles and techniques of Biotechnology	Recombinant DNA technology, Tools, PCR, Biosafety	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google	Can answer, what is vector and passenger DNA, Polymerase used in PCR.	22
October 11. Applications of biotechnology	Modified plants and animals, Synthesis of insulin	Zoom meeting, PPt, Board Marker, lecture method, short videos and test	Can differentiate between mature insulin and pro-insulin.	19

		google		
November				
12. Organisms and population	Effects of abiotic factors, population density, population growth and population interaction	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google	Can differentiate between commensalism and ammensalism.	7
13. Ecosystem	Ecosystem, food chain, food web, biological succession	Zoom meeting, PPt, Board Marker, lecture method, short videos and test google	Able to plot the graph in the form of different types of pyramids	
December	1 st Pre-Board			16
January	2 nd Pre-Board			18

CHEMISTRY

Month	Unit/topic	Methodology/ activities	Learning outcome	Working days
March	<p>Solid state Classification of solids based on different binding forces: molecular, ionic, covalent and metallic solids, amorphous and crystalline solids (elementary idea). Unit cell in two dimensional and three dimensional lattices, calculation of density of unit cell, packing in solids, packing efficiency, voids, number of atoms per unit cell in a cubic unit cell, point defects. Solutions, Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties.</p>	<p>Discussion of assignment given, Board Papers, Sample Papers Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of: i) Oxalic acid, ii) Ferrous Ammonium Sulphate (Students will be required to prepare standard solutions by weighing themselves).</p>	<p>.describe the principles concerning solid state structures .describe specific crystal structures by applying basic crystallographic concepts</p> <p>. of the nature of solution-focused approach, including the underlying assumptions, values that guide this perspective;</p> <p>. of the contexts within which strength-based approach is practiced;</p> <p>.and possibility to practice the acquired knowledge through case analysis and practical assignments.</p> <p>Express the electrochemistry.</p> <ul style="list-style-type: none"> • Recognize the electrochemical processes.. • Express the electrodes materials. • Explain the type of electrodes 	21
April	<p>Electrochemistry Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis. Chemical kinetics Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions).</p>	<p>Discussion of assignment given, Board Papers, Sample Papers</p>	<p>Determine rate law of chemical change based on experimental data.</p> <p>.Be able to identify the reaction order for a chemical change</p> <p>.Apply integrated rate equations to solve for the concentration of chemical species during a reaction of different orders.</p>	18
May	<p>Surface chemistry Adsorption - physisorption and chemisorption, factors affecting adsorption of gases on solids, colloidal state:</p>	<p>Discussion of assignment given, Board Papers, Sample Papers Determination of concentration/</p>	<p>.define and explain surface- and interfacial</p>	19

	<p>distinction between true solutions, colloids and suspension; lyophilic, lyophobic, multi-molecular and macromolecular colloids; properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation.</p> <p>P-Block elements</p> <p>Group -15 Elements: General introduction, electronic configuration, occurrence, oxidation states, trends in physical and chemical properties; Nitrogen preparation properties and uses; compounds of Nitrogen: preparation and properties of Ammonia and Nitric Acid. Group 16 Elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties, dioxygen: preparation, properties and uses, classification of Oxides, Ozone, Sulphur -allotropic forms; compounds of Sulphur: preparation properties and uses of Sulphur-dioxide, Sulphuric Acid: properties and uses; Oxoacids of Sulphur (Structures only). Group 17 Elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds of halogens, Preparation, properties and uses of Chlorine and Hydrochloric acid, interhalogen compounds, Oxoacids of halogens (structures only). Group 18 Elements: General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses.</p>	<p>molarity of KMnO_4 solution by titrating it against a standard solution of: i) Oxalic acid, ii) Ferrous Ammonium Sulphate (Students will be required to prepare standard solutions by weighing themselves).</p>	<p>phenomena.</p> <p>describe and explain different types of colloidal systems.</p> <p>Describe interactions between colloidal particles and explain colloidal stability and instability.</p> <p>Recognize valid definitions of, and use in a correct context, the terms, concepts and principles in the following Table. (All Questions)</p>	
June	<p>‘d’ and ‘f’ Block Elements</p> <p>General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation. Lanthanoids - Electronic configuration, oxidation states and lanthanoid contraction and its consequences</p> <p>Coordination compound</p> <p>Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory,</p>	<p>Discussion of assignment given, Board Papers, Sample Papers</p> <p>Qualitative analysis Determination of one cation and one anion in a given salt. Cation - Pb^{2+}, Cu^{2+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Zn^{2+}, Co^{2+}, Ni^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, $[\text{NH}_4]^+$ Anions – $[\text{CO}_3]^{2-}$, S^{2-}, $[\text{SO}_3]^{2-}$, $[\text{SO}_4]^{2-}$, $[\text{NO}_2]^-$, Cl^-, Br^-, I^-, $[\text{PO}_4]^{3-}$, $[\text{C}_2\text{O}_4]^{2-}$, CH_3COO^- (Note: Insoluble salts excluded)</p>	<p>.Understand the concept related to atomic radii and ionization enthalpy</p> <p>.use of the inert pair effect ,shielding effect in case of radius of d block element</p> <p>Understand the concept of lanthanoid contraction and actinoid contraction.</p> <p>discuss the properties of coordination compounds.</p> <p>Categorize Coordination Compounds.</p> <p>Relate Valence Bond Theory and Hybridization.</p> <p>Discuss Valence Bond Theory.</p> <p>consider Effective Atomic Number Theory and Werner Complexes.</p>	15

	VBT, and CFT.			
July	Haloalkanes and Haloarenes, Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only).	Discussion of assignment given, Board Papers, Sample Papers Qualitative analysis Determination of one cation and one anion in a given salt. Cation - Pb ²⁺ , Cu ²⁺ , Al ³⁺ , Fe ³⁺ , Mn ²⁺ , Zn ²⁺ , Cu ²⁺ , Co ²⁺ , Ni ²⁺ , Ca ²⁺ , Sr ²⁺ , Ba ²⁺ , Mg ²⁺ , [NH ₄] ⁺ + Anions – [CO ₃] ²⁻ , S ²⁻ ,	Classify the various organic halo compounds.. Recognise the nature of C-X bond. Describe the general methods of preparation of haloalkanes and haloarenes. Explain the physical and chemical properties of haloalkanes and haloarenes. Describe the mechanism of nucleophilic substitution and elimination r	22
August	Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses	Discuss of assignment given, Board papers , Sample papers [SO ₃] ²⁻ , [SO ₄] ²⁻ , [NO ₂] ⁻ , Cl ⁻ , Br ⁻ , I ⁻ , [PO ₄] ³⁻ , [C ₂ O ₄] ²⁻ , CH ₃ COO ⁻ (Note: Insoluble salts excluded)	Classify alcohol phenol and ether and also name them according to IUPAC nomenclature. (2) Understand the various reactions involved in the preparation of alcohol phenol and ether. (3) Correlation the gradation in melting , boiling points and other physical properties with their structure. (4) Discuss the chemical reactions of alcohol phenol and ether and understand the mechanisms involved in various reaction	19
September	RIVISION & FIRST TERM EXAM			22
October	Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Aldehyde, ketone and carboxylic acid Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses	Discuss of assignment given, Board papers , Sample papers Project; Study of presence of oxalate ions in guava fruit at different stages of ripening.	Explain the difference between an aldehyde and a ketone Name aldehydes and ketones according to the IUPAC system given the structural formulas and vice versa Discuss the physical properties of aldehydes and ketones List some characteristic reactions of aldehydes and ketones Define keto-enol tautomerism	19
November	Amines Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Biomolecules Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only),	Discussion of assignment given, Board Papers, Sample Papers Preparation of Organic Compounds Preparation of any one of the following compounds i) Acetanilide ii) Di -benzal Acetone iii) p- Nitroacetanilide iv) Aniline yellow or 2 - Naphthol Aniline dye. H. Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and	<ul style="list-style-type: none"> Give examples of a primary, secondary and tertiary amine Name amines according to the IUPAC system given the structural formulas and vice versa Discuss the physical properties of amines including their basicity Outline the structures of DNA and RNA and explain the structural difference List the roles of different types of RNA 	7

	denaturation of proteins. Nucleic Acids: DNA and RNA.	amino (Primary) groups. I. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given food stuffs.	such as transfer RNA, ribosomal RNA, messenger RNA	
December	First pre board			16
January	Second pre board			18