



<b>June</b>	5						
<b>July</b>	26			8 8		4 4	7 7
<b>August</b>	20			12 8		8 4	17 8
<b>September</b>							
<b>October</b>	23			11		7 4 2	18 10 5

November	20						4	10
							8	15
December	18					10	3	5
						10	3	5
						10	3	10
January	15					10	3	5
							3	5
							3	10
February								



**Chapter's Name**

**Ch-1 The Living World +NCERT**

**Ch-2 Biological classification**

**Ch-3 Plant Kindgom**

**Ch-4 Animal kingdom**

**Ch-5. Morphology of flowering plants**

**Ch-6. Anatomy of flowering plants**

**Ch-8 Cell: The unit of life**

**Ch-7 Anatomy of animal**

**Ch 9- Cell, cell cycle**

**Ch-11. Transport in plant**

**Ch-12. Mineral nutrition**

Ch 14- Respiration in Plants

Ch-15. Plant Growth and Development

Ch 13. Photosynthesis in Higher Plants

Ch-16. Digestion

Ch.17 Breathing

Ch-18. circulation

Ch-19. Excretory

Ch-20. Locomotion

Ch-21. Nervous system  
system

Ch-22. Endocrine

Revision &

**Syllabus For the Session 2020-21**

**Class - XI ( BIOLOGY)**

**Sub-Topic**

**Biodiverssity classification, Taxonomy, Taxonomic aids, key Museum, Herbarium**

**Linneaus's classification, protista monera, fungi,**

**Thallophyta, Bryophyta, Pteridophyta, Gymnosperm, Angiosperm, Phylum-porifera to chordata**

**Revision**

**Root, Stem, Leaves, Fruit, Xylem, Phloem, Secondary Growth in root, Stem, digestive, Respiratory Excretory & Reproductive system**

**Nucleus, Mitochondria plastids, type of chromosomes blood, lymph,**

**Revision & First Term Exam**

**Prophase, Anaphase, Metaphase, Telophase, Passive Active Transport, Diffusion, Munch, Flow hypothesis, Nitrogen cycle, Micro nutrient, macro nutrient**



**Glycolysis, kreb's cycle, ETS, Plants Harmones, C3 Cycle & C4 Cycle CAM plants.**

**Digestive gland, Inhale, Exhale, Respiration, Human Circulatory system, Heart, Artery, Vein, Cappilaries**

**Kidney, Kidney dyalysis, skeletal system, Endocrine & Exocrine gland**

**Second Term Exam**

<b>Learning Objective</b>
They will learn about how the differentiate between living & non-living world & defining their characters
They will learn about classification, Taxonomy & about the plant kingdom & Animal kingdom (characters, examples etc)


They will learn about morphology of stem, root & leaves, anatomy of animals

They will learn about how the cell organelle interact to each other & co ordinate a cell.

They will learn about minerals transportation into plants by active & passive transport.

Students will learn about respiration, release energy metabolism
They will learn about formation of glucose.
They will learn about break down of complex food into simple food. Absorption & Transportation of O <sub>2</sub> & simple food into the cells.
They will learn about how excretory waste remove from the body & nervous system co-ordinates a function of the body

<b>Experiment</b>	<b>Experiential Learning</b>
<b>Act- observation of fungi, specimens of animals &amp; plants (observation)</b>	

Act- Dissection of plants & animal cockroaches	
Act- Observation of plant cell	
Act-Potato Osmometer	

<b>Act-Explain by charts &amp; model</b>	
<b>Act- Explain by model &amp; teachnext.</b>	
<b>Explain by chart &amp; observations of neurons</b>	









[CLASS 11- CURRICULUM] Chemistry, 2020-21

MONTH S	days	TOPIC	Sub Topic	Learning objectives	Activity	Experiential learning	P-1	P-2	TERM-1	P-3	TERM-2
April	22	Structure of atom	electron, proton neutron thomson,rutherford and bohr atomic models Emw theory & planck's quantum theory photoelectric effect De Broglie relation and Heisenberg's uncertainty principle quantum numbers Quantum mechanical model	learn about the discovery of electron proton and neutron learn about thomson,rutherford and bohr's model	crystal formation of copper sulphate	students will able to learn the bohr's model and they can explain the revolution of planet around the sun as the electron revolve around the sun by applying the bohr's model.	PT1-40		18		04

may		<b>PERIODIC CLASSIFICATION OF ELEMENTS</b>	early attempts to classify element modern periodic table periodic properties of elements Ionisation enthalpy Electron Gain Enthalpy electronegativity	to learn how modern periodic table comes in existence defects of modern periodic table differentiate between I.P and E.G.Eexplain the variation of I.P,E.G.E,E.N in groups and period.	qualitative analysis determination of one cation and one anion in a given salt	students will be able to explain the position of elements in the periodic table. and they can use this to identify the reactivity of metals in their daily life		PT2-15	O8		03
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		<p><b>Chemical Bonding</b></p>	<p>types of bond, formal charges, VBT</p> <p>VSEPR theory</p> <p>MOT</p>	<p>understand kossel-Lewis approach ,octet rule and its limitations,formation of bond.</p> <p>predict the geometry and shape of molecules .</p> <p>explain Hybridisation involving s,p and d.</p> <p>describe MOT</p>		<p>students will learn the types of bond and they can identify the solubility of compound in the other comopund for ex:</p> <p>Salt , Sugar, oil, ghee.</p>		<p>PT2 -25</p>	<p>20</p>	<p>03</p>
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july		<p>REDOX REACTIONS</p>	<p>calculate oxidation number</p> <p>oxidation, reduction</p> <p>balancing redox reaction:</p> <p>1. Ion electron method</p> <p>2. oxidation number method</p> <p>Cell</p>	<p>predict oxidation numbers</p> <p>identify a reaction as being redox</p> <p>explain feasibility of reaction</p>	titration	<p>students will learn the redox reaction and they will be able to explain how redox reaction related to chemical processes in living beings takes place. for ex: respiration</p> <p>students will learn the electrode potential of different elements and they can use electrode potential to identify the reactivity of metals.</p>			12		04
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		STATES OF MATTER	<p>three states of matter:solid,liquid ,gas</p> <p>Intermolecular Interaction</p> <p>GAS laws:Boyle’s law,charles’law,Gay-lussac’s law,Avogadro’s laws</p> <p>The Ideal gas equation,</p> <p>Dalton’s law of partial pressure</p> <p>Kinetic theory of gases</p> <p>real gas equation</p> <p>liquefaction of gases</p>	<p>differentiate btw solid liquid and gas</p> <p>understand the various intermolecular forces</p> <p>explain all the law’s mathematically.</p> <p>derive the ideal gas equation from gas laws</p> <p>understand Dalton’s laws and solve problems</p> <p>list the postulates of kinetic theory of gases</p> <p>distinguish btw ideal and real gases</p> <p>describe the condition required for liquefaction of gases</p>		students will be able to learn the properties of gases and they are able to explain the rate of diffuion of different compound				12		03
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<p>august</p>		<p>THERMODYNAMICS</p>	<p>some basic terms and concepts, first law of thermodynamics . internal energy, enthalpy of reactions hess's law entropy and second law of thermodynamics, free energy and spontaneity free energy and equilibrium constant</p>	<p>able to know the terms: system and surroundings, discriminate between close, open and isolated system</p> <p>to know internal energy work and heat</p> <p>first law of thermodynamics mathematically</p> <p>calculate energy change as work and heat contribution in chemical system</p> <p>correlate entropy and enthalpy</p> <p>calculate enthalpy change</p> <p>to apply hess's law, spontaneity</p>		<p>students will learn the first law of thermodynamics and they can apply it in the energy transfer from higher</p>					<p>03</p>
		<p>some basic concept of chemistry</p>	<p>Chemical formulae ,Laws of chemical combination, mole concept, mass percent , empirical formulae and molecular formulae ,stoichiometric calculations</p>	<p>Learners will be able to understand that how to write the formulae of compounds</p> <p>Learners will be able to know the various laws of chemical combination</p> <p>student will be able to know the terms—mole and molar mass</p> <p>Learners will be able to calculate the empirical formula and molecular formula for a compound from the given experimental data.</p>		<p>students will be able to learn the mole concept and can use to calculate the concentration of any solution in their daily life.</p>				<p>01</p>	



septemb er		revison and exam		Student will be able to solved the problems based onstoichiometric reactions								
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OCTOBER		Equilibrium	<p>Dynamic nature of equilibrium</p> <p>equilibrium constant - <math>K_p</math> and <math>K_c</math></p> <p>Le chatliers principle</p> <p>arhenius ,bronsted-lowry and lewis concepts of acids and bases</p> <p>pH &amp; ionic product of water</p> <p>hydrolysis of salts solubility product ,buffer.</p>	<ul style="list-style-type: none"> <li>• Student will be able to identify dynamic nature of equilibrium involved in physical and chemical processes•</li> <li>Student will be able to know the law of equilibrium•</li> <li>Student will be able to explain characteristics of equilibria involved in physical and chemical processes.</li> <li>able to establish a relationship between <math>K_p</math> And <math>K_c</math>.</li> <li>Student will be able to explain various factors that affect the equilibrium state of a reaction .</li> <li>student will be able to classify substances as acids or bases according to Arrhenius,Bronsted-Lowry and Lewis concepts•</li> <li>Student will be able to classify acids and bases as weak or strong in terms of their ionization constant .</li> <li>Student will be able to explain the dependence of degree of ionization on concentration of the electrolyte and that of the common ion.</li> <li>Student will be able to describe pH scale for representing hydrogen ion concentration</li> </ul>		<p>students will learn the concept of equilibrium and can apply it in the proces of the transfer of energy from higher</p> <p>and they can apply le chatlier's principle in the preservation of food in refrigerators.</p>				25	14
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NOVEMBER											
		Some basic concept of organic chemistry + hydrocarbon	<p>Organic compound, Structure</p> <p>IUPAC and common naming</p> <p>Isomer</p> <p>Resonance</p> <p>Induction effect</p> <p>Hyperconjugation</p> <p>Types of Rxn</p> <p>Alkane</p> <p>Alkene</p> <p>Alkyne</p> <p>structure of benzene and directive influence</p>	<p>able to classify the organic compounds, name the compounds according to IUPAC system</p> <p>derive their structures from the given names</p> <p>able to recognize and write structures of isomers of alkanes, alkenes, alkynes and aromatic hydrocarbon</p> <p>to learn various methods of preparation of hydrocarbons</p> <p>explain structure of benzene aromaticity, mechanism of electrophilic substitution</p> <p>predict the directive influence of substituents in mono substituted benzene ring</p>		students will be able to learn the concept of chemical reaction and they can explain how the vegetable oil converted into vegetable ghee in ur daily life and how sugar can be converted into alcohol .				15	16



<p><b>DECEMBER</b></p>		<p><b>HYDROGEN</b></p>	<p>position of hydrogen in the periodic table</p> <p>occurrence, preparation, properties and uses of hydrogen</p> <p>hydrides</p> <p>structure of water, properties and uses of hydrogen, water, hydrogen peroxide</p> <p>hard and soft water</p>	<p>able to present informed opinions on the position of hydrogen in the periodic table</p> <p>describe isotopes of hydrogen</p> <p>explain the structure of water and use the knowledge for explaining physical and chemical properties</p> <p>difference between 'hard and 'soft water and learn about water softening.</p>		<p>students will nbe able to learn <b>HYDROGEN</b> and its property</p> <p>by learning H2 students can explain why it is used in rocket fuels ,why animals eats plant.</p>					<p><b>06</b></p>
		<p><b>S-BLOCK ELEMENTS</b></p>	<p>general characteristics of the alkali metal, alkaline earth metals</p> <p>some imp compounds of alkaline earth metals like</p> <p>biological significance of sodium, potassium, magnesium and calcium</p>	<p>a compound including portland cement .</p> <p>able to describe the manufacture, properties and uses of industrially important sodium and calcium the biological significance of sodium, potassium, magnesium and calcium.</p>		<p>students will be able to learn the s-block elements and they can explain the biological importance of s-block elements in the human body and how we can recover the quantity of these foods in our body .</p>					<p><b>04</b></p>

<p>JANUARY</p>		<p>GENERAL INTRODUCTION OF P-BLOCK ELEMENTS</p>	<p>general trends in the chemistry of P-block elements;</p> <p>physical and chemical properties of group 13 and 14 elements;</p> <p>anomalous behaviour of boron and carbon</p> <p>allotropic forms of carbon</p> <p>some important compounds of boron, carbon and silicon;</p> <p>use of group 13 and 14 elements and their compounds</p>	<p>able to describe the trends in physical and chemical properties of group 13 and 14 elements</p> <p>able to explain anomalous behaviour of boron and carbon</p> <p>imp uses of group 13 and 14 elements and their compounds</p>		<p>students will be able to learn the p-block element and they can explain the reason why we are using the argon in our bulb and they can explain why the helium gas is used in balloons .</p>					<p>06</p>
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		ENVIRONMENTAL CHEMISTRY	<p>meaning of environmental chemistry</p> <p>atmospheric pollution</p> <p>ozone layer depletion and its effects</p> <p>water pollution</p> <p>soil pollution</p> <p>control of environmental pollution</p>	<p>cause of atmospheric pollution, list reason for global warming, greenhouse effect and acid rain</p> <p>identify cause for ozone layer depletion and its effect</p> <p>describe causes of soil pollution</p>		<p>students will be able to learn environmental chemistry and they can explain how green chemistry works as an alternative tool for reducing pollution and how we can apply it in our daily life.</p>						03
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## ENGLISH CLASS XI CURRICULUM (2020-21)

Month & Teaching days	Book	Chap.	Topic	Learning Outcomes	Subject Enrichment Activity
April 20 Days	Hornbill	Lesson-1	The Portrait of a Lady (By. Khushwant Singh)	<ul style="list-style-type: none"> <li>Students will be able to develop an attitude to become more independent in thought and action, responsible and co-operative, understanding and tolerance, improved working relations</li> <li>Able to develop their optimistic attitude towards life.</li> <li>Students will be able to use appropriate style and format to write a notice effectively.</li> </ul>	<ul style="list-style-type: none"> <li>The elderly persons are left alone by their children to pass a solitary life. Their feelings are also not respected. Keeping this fact in your mind write an article on the topic "We too are human beings."</li> <li>To strengthen the bond of love and respect between school and society as well as children and their grand parents your school is celebrating 'Grand parents Day.' Draft a notice to invite the grand parents of the students. Your notice must have all essential details of day,date and venue.</li> </ul>
		Writing	Notice, Article		
		Grammar Values	Tense Caring and sharing		
		Life Skills	Empathy, Intrapersonal		
May 21 Days	Hornbill	Lesson-2	We Are Not Afraid to die.. (By Gordon Cook and Alan East)	<ul style="list-style-type: none"> <li>The learners will be able to enhance their problem showing skills</li> <li>Able to inculcate the values of determination and will power</li> </ul>	<ul style="list-style-type: none"> <li>"An optimistic person can bravely manage even in the direst situations."Express your own views in a paragraph on this topic.</li> <li>You want to sell your car because of your settlement at abroad. Write an advertisement to be published in a daily.</li> <li>You happened to see an advertisement in a national daily about a job vacant for PGT chemistry in Cambridge School Noida. You feel yourself eligible and want to apply for the same. Write your application to the principal with detailed resume.</li> </ul>
	Hornbill	Poem-1	Photograph (By Shirley Toulson)		
	Snapshot	Lesson-1	Summer of the Beautiful White Horse (By William Saroyan)		
		Writing	Advertisement, Letter to Editor & Job Letters	<ul style="list-style-type: none"> <li>The students will be able to apply the literal, interpretative and critical level in analyzing the chapter.</li> <li>Able to comprehend the irony hidden in the story</li> <li>Students will be able to learn persuasive techniques used in advertising specifically pathos or emotion, logos or logic and ethos or credibility character</li> <li>:explore the concept of demographics and marketing for a specific audience.</li> </ul>	
		Grammar Reading	Tenses		

		Value  Life skills	Comprehension passage Perseverance  Coping with stress, Disaster management, Effective communication	<ul style="list-style-type: none"> <li>• :develop and enhance interest towards writing skills.</li> <li>• understand the nature and purpose of a letter.</li> </ul>	
<b>July 20 Days</b>	Snapshot   Hornbill   Hornbill	Lesson-2   Lesson-3   Poem-2  Grammar Reading Value Life skills	<p>The Address By (Marga Minco)</p> <p>Debate &amp; Poster</p> <p>Discovering Tut: The Saga Continues (By A.R. Williams)</p> <p>The Voice of Rain (By Walt Whitman)</p> <p>Determines</p> <p>Note making</p> <p>Love, Faith &amp; Trust</p> <p>Interpersonal Relationship</p>	<ul style="list-style-type: none"> <li>• The Students will be able to distinguish different perspectives</li> <li>• able develop the reading skill &amp; Vocabulary</li> <li>• The learners will be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage and relevant vocabulary for a hospitable of an event.</li> <li>• The students will be able to grasp the them and meaning of the prose.</li> <li>• : enhanced critical and creating thinking skills</li> <li>• : derive the moral values.</li> <li>• The students will be able to grasp the them and meaning of the poem.</li> <li>• able to read the poem with proper tone and rhyme and develop in interest in poetry.</li> <li>• able to draw a comparative study between human life and nature</li> <li>• able to recognize and list the poetic devices.</li> </ul>	<ul style="list-style-type: none"> <li>• “Tumults and demonstrations create a vast destruction everywhere” is quite evident from recent communal riots in the capital city Delhi. Write an article on the above subject.</li> <li>• Prepare a poster on the topic “Each drop saves the crop.”</li> </ul>

<p><b>August 24 Days</b></p>	<p>Snapshot</p> <p>Hornbill</p>	<p>Lesson-3</p> <p>Lesson-4</p> <p>Grammar</p> <p>Reading</p> <p>Writing</p> <p>Value Life Skills</p>	<p>Ranga's Marriage (By Masti Venkatesha Iyenger)</p> <p>The Ailing Planet (By Nani Palkhivala)</p> <p>Modals</p> <p>Note Making comprehension passage</p> <p>Business Letter, Debate</p> <p>Generosity Self Awareness, Interpersonal Relationship, Self-awareness, Effective communication</p>	<ul style="list-style-type: none"> <li>• The Students will be able to effectively provide a synopsis of the story. And analyze the values and thought process of the story.</li> <li>• able to inculcate the positive values and attitude.</li> <li>• Able to enhanced vocabulary &amp; listening skills.</li> <li>• Students will be able to sensitize themselves towards the earth and environment.</li> <li>• Able to inculcate the values of leadership and contribute to make our earth green</li> <li>• The learners will be able to receive and process written text(Literacy, discussing and descriptive) for general orientation and understanding</li> <li>• Able to develop their reading and logical thinking skills.</li> <li>• Students will be able to express their ideas fluently and chronologically , concisely without difficulty in purpose, expressions, grammar usage, format usage and relevant vocabulary.</li> </ul>	<ul style="list-style-type: none"> <li>• “Indian society has moved a long way from the way the marriage is arranged in the story.”Your class is divided in opinion that old pattern of arranging the marriages was better than the new one that is taking place now a days. Write a debate on the above topic.</li> <li>• Now a days over exploitation of natural resources has been a major problem. You see that people waste the water excessively which can result in scarcity of water for future generation. Write a letter to the editor of a national daily showing your concern on the above mentioned problem.</li> </ul>
<p>Sep.</p>	<p align="center"><b>Revision &amp; Half Yearly Examination</b></p>				

Oct. 20 Days	Hornsbill	Lesson-5	The Browning version (By Terence Rattigan)	<ul style="list-style-type: none"> <li>• The students will be able to stimulate language development and increase their ability to write spontaneously</li> <li>• :respond to a personal dilemma</li> <li>• :enhance analytical skills &amp; vocabulary</li> </ul>	<ul style="list-style-type: none"> <li>• Your school is going to organize an “Honour Ceremony” for the women for their contribution in shaping and caring the lives of the students. Write an invitation (Formal) on behalf of your school.</li> <li>• Childhood is the Spring season of one’s life liked by all. Write your own feelings on the topic” Me and my childhood.”</li> </ul>
	Hornsbill	Poem-3	Childhood (By Markus Natten)	<ul style="list-style-type: none"> <li>• The students will be able to stimulate language development</li> <li>• :recognize and list the poetic devices found in the poem</li> </ul>	
	Snapshot	Lesson-4	Albert Einstein at School (By Patrick Pringle)	<ul style="list-style-type: none"> <li>• Students will be able to understand the words &amp; their meanings</li> <li>• :enhance their reading as well as writing skills</li> </ul>	
		Writing Grammar Value Life Skills	Invitations , Articles Passive voice sentences- reordering Responsibility, Faith & Love, Temperance  Effective communication, coping with stress, positive attitude	<ul style="list-style-type: none"> <li>• The learners will be able to express their ideas cohesively, completely, fluently and spontaneously with expressions, grammar usage and relevant vocabulary for a hospitable of an event.</li> </ul>	
Nov. 20 Days	Hornsbill	Poem-4	Father to Son By (Elizabeth Jennings)	<ul style="list-style-type: none"> <li>• Students will be able to distinguish different perspectives, analyzing and drawing conclusions.</li> <li>• :unfold their logical thinking skills.</li> <li>• :recognize and list the poetic devices.</li> </ul>	<p>“Effective communication is must” between a father and a son to be the most successful persons in life. Write a speech on the above mention topic.</p> <ol style="list-style-type: none"> <li>1. A happy family is one in which each member is loved, understood and forgiven. Express and interpret your own views in support.</li> </ol>
	Snapshot	Lesson-5	Mother’s Day (By J.B. Priestley)	<ul style="list-style-type: none"> <li>• Students will be able to comprehend the role of a mother and inculcate values of respect and obedience.</li> <li>• Recognize and address patterns and trends and explain how the tone of a speech can affect students morale and motivation.</li> </ul>	
		Writing Grammar	Speech  Clause sentences re-ordering	<ul style="list-style-type: none"> <li>• :develop their reading skills, listening skills and basic skills of language.</li> </ul>	

		Value Life Skills	Justice & peace ,. Decision making		
<b>Dec. 20 Days</b>	Snapshot	Lesson-6	Birth By (A.J. Cronin)	<ul style="list-style-type: none"> <li>• Students will be able to differentiate the situation of story lines and life experience.</li> <li>• :an empathetic decision with the protagonist</li> <li>• The students will be able to grasp the theme and meaning of the poem.</li> <li>• :raise their concern and sensitize themselves for establishing inner as well as outer peace.</li> <li>• The students will be able to describe the kinds of information to include in specific reports and identify tips for writing a clear, concise and useful report</li> </ul>	<p>2. The global pandemic Novel Covid-19 Corona Virus devastated the country. Your town was also kept under strict lockdown for many days. Write a report on the condition of your colony and the people during that period.</p> <ul style="list-style-type: none"> <li>• Through a speech suggest the steps, the people and the government need to take to put the country on the track of progress and growth after the pandemic Novel covid-19.</li> </ul>
	Snapshot	Lesson-7	The Tale of Melon City By( Vikram Seth)		
		Writing	Report Writing		
		Value	Equality, Responsibility towards our mother & wives		
		Life Skills	Problem solving		
<b>Jan.</b>			<b>Revision &amp; Final Exam</b>		

## CLASS XI [I.T.] CURRICULUM 2020-21

Month	Days	Weightage	Topics	Learning Objectives	Learning Outcome	Activities
<b>April</b>	20 (15 hrs)	7 Marks	Unit-I – Computer Organization & OS: User Perspective	Students will aware of the fundamental concepts of a computer system like <ul style="list-style-type: none"> <li>• Hardware</li> <li>• Software</li> <li>• Functionality of Computer</li> <li>• Operating System</li> <li>• Types of OS</li> </ul>	Students are familiar about the fundamental concepts of a computer system like <ul style="list-style-type: none"> <li>• Hardware</li> <li>• Software</li> <li>• Functionality of Computer</li> <li>• Operating System</li> <li>• Types of OS</li> </ul>	Identify the type of Hardware, Software, Operating system, your personal computer have or your mobile have.
<b>May</b>	25	5 Marks	Unit –II- Networking and Internet <ul style="list-style-type: none"> <li>• Network Safety Concerns</li> <li>• Network Security Tools and Services</li> <li>• Cyber Security</li> <li>• Safe practices on Social Networking</li> </ul>	Students will familiar about the network, network components, types of networks, how a network works etc.	Students are aware about the network, network components, types of networks, how a network works etc.	Arrange a Presentation on Cyber safety rules and regulation in groups.
<b>July</b>	20	6 Marks  6 Marks	Unit –V- Troubleshooting: Hardware, Software and Networking  Unit –III-  Office Automation Tools: • Word Processing	Student will learn how to identify an error or a bug and fix it by himself/ herself or by using technology.  Student will learn how to use word processing tool in daily life and how to use its tools according to the need.	Student learnt how to identify an error or a bug and fix it by himself/ herself or by using technology.  Student learnt how to use word processing tool in daily life and how to use its tools according to the need.	Students will prepare his/her resume and send it using Mail merge feature.
<b>August</b>	15	12 Marks	Unit –III-  Office Automation Tools: • Spreadsheet  • Presentation	Student will learn how to use Spreadsheet tool and presentation tool in daily life and how to use their tools according to the need.	Student learnt how to use Spreadsheet tool and presentation tool in daily life and how to use their tools according to the need.	Students will prepare big bazar bill format.

## CLASS XI [I.T.] CURRICULUM 2020-21

<b>Sep.</b>			Revision UNIT- I TO-III for Half Yearly Exams			
<b>Oct.</b>	30	12 Marks	Unit- IV- Multi Media Design: (Open Source Design Tools) <ul style="list-style-type: none"> <li>• Interface and Drawing Tools in GIMP.</li> <li>• Applying Filters.</li> <li>· Creating and Handling Multiple Layers.</li> <li>· Using Stamping and Smudging tools.</li> <li>· Importing pictures</li> </ul>	Student will learn how to do changes in an image and how to implement different type of gestures, corrections in an image.	Student learnt how to do changes in an image and how to implement different type of gestures, corrections in an image.	Student will do implementation on his her own image and modify it.
<b>Nov.</b>	10	<b>2 Marks</b>	Unit –II- <ul style="list-style-type: none"> <li>• E mail Messaging</li> <li>• Digital Literacy</li> </ul>	Student will learn about the basic need of Email messaging how to use it and what are the basic elements of email. And will also learnt about the digital literacy.	Student learnt about the basic need of Email messaging how to use it and what are the basic elements of email. And will also learnt about the digital literacy.	
<b>Dec.</b>	10		Unit – VI- Work Integrated Learning IT - ISM <ul style="list-style-type: none"> <li>• Identification of Work Areas</li> <li>• Work Experience</li> </ul>	Student will learn how to purchase a new system according to the need of user and how to select the hardware of system.	Student learnt how to purchase a new system according to the need of user and how to select the hardware of system.	Arrange demo of showroom for selling and purchasing a Digital Device.
<b>Jan.</b>			<b>Revision</b>			
<b>Feb</b>			<b>Revision</b>			





**Curriculum For the Session -2020-21**  
**Class-XI B(Mathematics)**

<b><u>Month</u></b>	<b><u>Topic</u></b>	<b><u>Sub-Topic</u></b>	<b><u>Learning Objective</u></b>	<b><u>Relevance in Daily Life</u></b>
<b>April &amp; May 20 Days</b>	Ch-1 (Set Theory)	Definitions, notation. Symbols, type of sets and their representations, Empty set, Finite and infinite sets, Equal sets, Subsets, subset of a set of real numbers especially intervals (with notations) Powerset, Universal set, Venn diagram, Union and intersection of sets, Difference of two sets, complements of a set, Properties of complement sets. Practical problems ( related to daily life)	<b>1</b> -To understand the concept of notation and symbols. <b>2</b> -Understand the type of sets and their representations <b>3</b> -Able to understand the concept of subset and power set <b>4</b> -Understand the concept of venn-diagram, Union and intersection & complement of a set.	❖ <b>Collection of well defined data</b>
	Ch-4 Principle of Mathematical Induction	Process of the proof by induction, motivating the application of the method by looking at natural numbers as the least inductive subset of real numbers. The principle of mathematical inductions and simple applications.	<b>1</b> -To understand the concept of principle of mathematical induction	❖ Verifying the proven results that if it is true for one, two then it will be true for the last also
	Ch-5 Complex Number	Need for complex number, especially, $\sqrt{-1}$ , to be motivate by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. argand plane and polar representation of complex numbers. Statement of fundamental theorem of Algebra, Solution of Quadratic equation ( with real coefficients) in the complex number system square root of a complex number.	<b>1</b> -To understand the need of complex number and meaning of iota <b>2</b> -To understand polar representation and square root of a complex number	❖ <b>Complex number used in electrical engg. In fourier transform to understand oscillation that occurs both in AC and in signals modulated by electromagnetic waves</b>

<p><b>JUNE</b> 15 days</p>	<p>Ch-2 Relation and Functions</p>	<p>Ordered pairs, Cartesian product of sets, Number of elements in the Cartesian product of two finite sets, Cartesian of the sets of real's with itself ( up to <math>\mathbb{R} \times \mathbb{R}</math>). Definitions of relation, Pictorial diagrams, domain, Co domain and range of a relation function as a special type of negation of a function, domain, Co-domain and range of a function, Real valued functions domain and range of these functions, Constant, identify, Polynomial, rational. Modulus, signum, exponential, logarithmic and greatest integer functions with their graphs, Sum, difference, Product and quotients of functions.</p>	<p><b>1-</b>To understand the concept of ordered pair, Cartesian product  <b>2-</b>To understand the concept of relation, Pictorial diagrams relation, Pictorial representation, domain, co-domain and range.  <b>3-</b>To understand the various types of functions and their graphical representation  <b>4-</b>To understand the algebra of functions.</p>	
<p>July 20 Days</p>	<p>Ch-6 Linear Inequalities</p>	<p>Linear inequalities. Algebraic solutions of linear in equalities in one variable and their representation on the number line, Graphical solution of linear inequalities in two variables. Graphical method of finding a solution of system of linear inequalities in two variables</p>	<p>-To understand the meaning of in equalities in one or two variables  <b>2-</b>To understand the graphical representation of linear in equalities</p>	<ul style="list-style-type: none"> <li>❖ To find solution of the feasible region of in-equation</li> <li>❖ Comparing b/w two similar type of items.</li> </ul>
	<p>Ch-3 Trigonometric Function</p>	<p>Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another Definition of trigonometric functions with the help of unit circle, Truth of identity <math>\sin^2 x + \cos^2 x = 1</math> for all <math>x</math> the Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs.</p> <p>Expressing <math>\sin(x \pm y)</math> and <math>\cos(x \pm y)</math> in terms of <math>\sin x, \sin y, \cos x</math> and <math>\cos y</math> and their simple applications Deducing the identities like the following</p> $\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$	<p><b>1-</b>To understand angular system (in radian and in degree measure)  <b>2-</b>To understand the proof of trigonometric identities, domain and range of trigonometric functions and their graphs.  <b>3-</b>To understand the proof of compound angles of sine and cosine, maximum and minimum values of trigonometric functions.  <b>4-</b>To understand the principal and General solutions of trigonometric equations.</p>	<ul style="list-style-type: none"> <li>❖ Used in oceanography in calculating the height of tides in oceans</li> <li>❖ Astronomy to measure the distance b/w near by stars</li> </ul>

		$\sin \alpha \pm \sin \beta = 2 \sin \left( \frac{\alpha \pm \beta}{2} \right) \cdot \cos \left( \frac{\alpha \mp \beta}{2} \right)$ $\cos \alpha \pm \cos \beta = 2 \cos \left( \frac{\alpha + \beta}{2} \right) \cdot \cos \left( \frac{\alpha - \beta}{2} \right)$ $\cos \alpha - \cos \beta = 2 \sin \left( \frac{\alpha + \beta}{2} \right) \cdot \sin \left( \frac{\alpha - \beta}{2} \right)$ <p>Identities related to  <math>\sin 2x, \cos 2x, \tan 2x, \sin 3x, \cos 3x</math> and <math>\tan 3x</math>            General and principal solution of trigonometric equations of type  <math>\sin y = \sin \alpha, \cos y = \cos \alpha,</math> and <math>\tan y = \tan \alpha</math></p>		<ul style="list-style-type: none"> <li>❖ <b>Weather forecast</b></li> <li>❖ <b>Predicting disease</b></li> <li>❖ <b>Insurance</b></li> <li>❖ <b>Stock Market</b></li> </ul>
August 20 Days	Ch-7 Permutation and combination	Fundamental principle of counting factorial notation ( $n!$ ) Arrangements, Theorems, derivation of formulae ${}^n P_r$ permutation. Combinations. Theorems related on ${}^n C_r$ and their connections, simple Applications on combinations	<b>1-</b> Learners will be aware about number system, factorial notation and their representation. <b>2-</b> To understand the term ${}^n C_r$ and proof.	<ul style="list-style-type: none"> <li>❖ Communication Network</li> <li>❖ Cryptography and Network security</li> <li>❖ To generate car registration series</li> <li>❖ To generate mobile number</li>   <li>❖ BT (Binomial Theorem) is used for automatic distribution of IP address</li> </ul>
	Ch-8 Binomial Theorem	History, Statement and proof of binomial theorem for positive integral indices. Pascal's triangle, General and middle term in binomial expansion, simple applications.	<b>1-</b> To understand history of binomial Theorem and statement To understand the pascal triangle <b>2-</b> To understand the General and middle terms	
September	<b>Revision and Exam</b>			

October 22 Days	Ch-9 Sequence and series	Sequence and series, Arithmetic Progression (A.P.) General term of A.P. Arithmetic mean (A.M.). Geometric Progression (G.P.) General term of G.P. , Sum of first terms of a G.P. , infinite G.P. and its Sum, Geometric mean (G.M.). Relation between A.M. and G.M., Formula for the following sums some applications.	<p><b>1-</b>To understand difference b/w sequence and series.</p> <p><b>2-</b>To understand A.P., A.M. General term and sum of n term of A.P.</p> <p>To understand General term of G.P. and sum of first n terms.</p>	<ul style="list-style-type: none"> <li>❖ <b>The amount in your saving A/c.</b></li> <li>❖ <b>The size of a population</b></li> <li>❖ <b>Waiting for bus at bus stop</b></li> <li>❖ <b>Weather forecasting</b></li> <li>❖ <b>Batting Average in cricket</b></li> <li>❖ <b>Insurance sector</b></li> <li>❖ <b>Lottery tickets</b></li> </ul>
	Ch-16 Probability	Random experiments; outcomes, sample spaces (set representation). Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, axiomatic (set theoretic) Probability, connections with other theories studied in earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.	<p><b>1-</b>To understand the concept of probability and various terms, mutually exclusive and exhaustive</p>	Ch-16 Probability
	Ch-10 Straight line	Brief recall of two dimensional geometry from earlier classes, Shifting of origin. Slope of a line and angle between two lines. Various forms of equations of a line parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form and normal form. General equation fo a line. Equation of family of lines passing through the point of intersection of two lines. Distance of a point from a line.	<p><b>1-</b>To understand the concept of two dimensional geometry and shifting of origin.</p> <p><b>2-</b>To understand the new concept slope of line and angle b/w two lines.</p> <p><b>3-</b>To understand the various forms of equations of a line.</p> <p><b>4-</b>To understand the equation of family of lines passing through the point of intersection of two lines.</p>	<ul style="list-style-type: none"> <li>❖ To relate b/w two variable</li> <li>❖ Directly propostral or inverse propostral</li> <li>❖ Speed distance graph</li> <li>❖ To find areas of circular lens, bottles, tyres, satellites orbit</li> <li>❖ Parabolic surface of used in Radar dishes, headlights</li> </ul>

November 20 Days	Ch-10 Straight line	Brief recall of two dimensional geometry from earlier classes, Shifting of origin. Slope of a line and angle between two lines. Various forms of equations of a line parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form and normal form. General equation fo a line. Equation of family of lines passing through the point of intersection of two lines. Distance of a point from a line.	<p><b>1-</b>To understand the concept of two dimensional geometry and shifting of origin.</p> <p><b>2-</b>To understand the new concept slope of line and angle b/w two lines.</p> <p><b>3-</b>To understand the various forms of equations of a line.</p> <p><b>4-</b>To understand the equation of family of lines passing through the point of intersection of two lines.</p>	<ul style="list-style-type: none"> <li>❖ To relate b/w two variable</li> <li>❖ Directly propostral or inverse propostral</li> <li>❖ Speed distance graph</li> <li>❖ To find areas of circular lens, bottles, tyres, satellites orbit</li> <li>❖ Parabolic surface of used in Radar dishes, headlights</li> </ul>
	Ch-11 Conic section	Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.	<p><b>1-</b>To understand the standard equations and simple properties of parabola, ellipse and hyperbola.</p> <p><b>2-(Ellipse)</b> Orbit of planets, satellites, moons and comets and some Airplane Wings....</p> <p><b>3.</b> A Medical device called lithotripter used electrical reflectors to breakup kidney stones by generating sound waves</p> <p><b>4- (Hyperbola)</b> Radio systems signals employ hyperbolic functions. One important radio system</p>	Ch-11 Conic section

			<p><b>LORAN</b> identify geographic positions using hyperbola ..... 5- In Microscope, Telescope and TV for viewing planets or bacteria.</p>	
December	Ch-12 Introduction to three dimensional Geometry	Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.	<p><b>1-</b>To understand the coordinate axes and co-ordinate planes in three dimensions. To understand the distance between two points and section formula.</p>	<ul style="list-style-type: none"> <li>❖ Virtual games</li> <li>❖ Crystallography</li> <li>❖ Making 3 D images of building and homes</li> <li>❖ Chemical reaction in a beaker that form a new compound every time as time approaches infinity</li> <li>❖ If you drop an ice cube in a glass of warm water and measure temperature with time, the temp, eventually approaches the room temp. whereas the glass is stored, measuring a temp. is a gen. Limit process as time approaches infinity</li> </ul>
	Ch-13 Limit and derivatives	Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative, relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions derivatives of polynomial and trigonometric functions.	<p><b>1-</b>To understand the derivative introduced as rate of change and idea of limit. <b>2-</b>To understand the concept of limits of polynomial and etc. <b>3-</b>To understand the concept of derivatives and its applications.</p>	Ch-13 Limit and derivatives

	Ch-15 Statistics	Measures of dispersion: Range, mean deviation, variance and standard deviation of ungrouped/grouped data. Analysis of frequency distributions with equal means but different variances.	1-To understand the measures of dispersion, mean deviation. Variance and standard deviation. How to find missing frequencies if mean and standard deviation is given	

## Weight age of Exam

Exam	Month	Total Number	Topic
UT-1	May	40	PMI- 20 Marks Complex Number- 20 Marks
UT-2	August	40	LI- 5 Marks ST- 4+2=6 Marks R & F 5+1=6 Marks Trigno 15 Marks Statistic 8

## Class-XI Painting (Curriculum) 2020-21

<b>MONTHS</b>	<b>BOOKS</b>	<b>CHAPTERS</b>	<b>TOPIC</b>	<b>ACTIVITY</b>	<b>THEME</b>	<b>LIFE SKILL</b>
APRIL	INDIAN PAINTING (R.C. LUTHRA)	I <sup>ST</sup>	PRI- HISTORIC PERIOD	CLASS DISCUSSION WILL BE HELD ON THE TOPIC	SUSTAINABLE	NATIONALISM
MAY	INDIAN PAINTING (R.C. LUTHRA)	II <sup>ND</sup>	INDUS VILLEY CIVILIZATION	CLASS DISCUSSION WILL BE HELD ON THE TOPIC	HEALTH & WELLNESS	RESPONSIBLE
JULY	INDIAN PAINTING (R.C. LUTHRA)	III <sup>RD</sup>	GANDHAR STYLE	CLASS DISCUSSION WILL BE HELD ON THE TOPIC	GLOBALIZATION	NATURE
AUGUST	INDIAN PAINTING (R.C. LUTHRA)	IV <sup>TH</sup>	ART OF AJANTA	CLASS DISCUSSION WILL BE HELD ON THE TOPIC	ACCOUNTABILITY	SELF AWARENESS
SEPTEMBER	INDIAN PAINTING (R.C. LUTHRA)	V <sup>TH</sup>	INDIAN TEMPLE SCULPT USES	ARTISTIC VALUE RESPECT FOR ART AND CULTURE	NUTURE THE NATURE	HONESTY
OCT. & NOV.	INDIAN PAINTING (R.C. LUTHRA)	VITH	INDO-ISLAMIC-TUSE	ARTISTIC VALUE RESPECT FOR ART AND CULTURE	MODERNIZATION	RESPONSIBLE



# PRAGYAN PUBLIC SCHOOL- JEWAR

## Curriculum of Session – 2020-21

### Class –XI (Physical Education)

Months	Days	PT-1	PT-2	H.Y. Exams	PT-3	Anural Exams	Topic	Sub- Topic	Learning Objective	Learning Experience
April	21	20	-	10	-	5	1- Changing Trends & career in Physical Education.	<ul style="list-style-type: none"> <li>• Definition of Physical Education &amp; aims and Objectives.</li> <li>• Career option in Physical Education</li> <li>• Various Physical Education</li> <li>• Competitions at national &amp; international level.</li> </ul>	To Explain the true meaning, Definition & Objectives of Physical Education in human life. Also Explain about the available careers & opportunities in Physical Education.	Student will aware about the proper concept of Physical Education and careers related to the Physical Education.
		20	-	10	-	5	2- Olympics Value Education	<ul style="list-style-type: none"> <li>• Olympics, Paralympics and special Olympics</li> <li>• Olympics Symbols</li> <li>• IOC</li> <li>• IOA</li> </ul>	Explain the value and history of Olympics games to the students and also explained & modern Olympics game.	Students will aware about the Olympics games & also get knowledge about the true motto of Olympics game & able to compare the changes between ancient & modern Olympics Game.

May	23	-	20	10	-	5	3- Physical fitness wellness & lifestyle.	Meaning & importance of physical fitness wellness & lifestyle components of physical fitness wellness & lifestyle components of health related fitness.	Define the concept of Physical fitness wellness & lifestyle. Explains the importance & components of positive lifestyle in human life.	Students will learn and helped to improve the standard of Physical fitness wellness & improve the quality of life.
July	26	-	20	15	-	5	4- physical education and sports for CWSN	<ul style="list-style-type: none"> <li>•Aims objectives of adaptive physical education.</li> <li>•Organization promoting adaptive sports.</li> <li>•Concept of inclusion</li> <li>•Role of some professionals of CWSN</li> </ul>	Briefly explain about the concept of disabled children's and Explain about those organizations and professionals who works with the CWSN for their development.	Student will aware about a new & dynamic phase of physical education specialty designed for the development of disabled children's and also aware about some organizations & professionals who worked for the CWSN.
		-	-	10	-	5	5- yoga	<ul style="list-style-type: none"> <li>• Meaning of yoga</li> <li>• Importance of yoga</li> <li>• Elements of yoga</li> <li>• Asana Pranayama meditation and yogic kriyas, Relaxation techniques.</li> </ul>	Briefly explain about the history, meaning importance & elements of yoga. Also explain the yoga as a preventive measure & for many common life style disease.	Students will clear the concept of yoga. They come to know that only asanas are not yoga. How yoga is the best & less expensive medium to remain healthy & fit and prevent Prom many Problems.

August	20	-	-	15	-	5	6. physical Activity & leadership training	<ul style="list-style-type: none"> <li>• Leadership qualities</li> <li>• Role of a leader</li> <li>• Create leaders by physical education</li> <li>• Adventure sports</li> <li>• Safety measures.</li> </ul>	Explain the qualities of leadership and Role of leader and now physical education create the leaders, explain the adventure sports and safety measurements so prevent the injuries.	Students will learn & use the skills of became o good leader through the physical education and also get knowledge about the adventure sports and use of the safety measures.
Sep	-	-	-	-	10	5	7. test, measurement & Evaluation in sports	<ul style="list-style-type: none"> <li>• Definition &amp; importance of test measurements &amp; evaluation</li> <li>• Calculation of BMI, W-H-R</li> <li>• Somato types</li> <li>• Measurement of health fitness.</li> </ul>	Explain the meaning definition & importance of test, measurement & evaluation in sports and also explain the types of human body & parameters of health related fitness.	Students will learn the meaning & importance of test, measurements Evaluation in sports, they can use these test tools to evaluate and devolve their body fitness & performance. They also aware about their body categories.
Oct	20	-	-	-	15	10	8. Fundamental of Anatomy, physiology & kinesiology in sports.	<ul style="list-style-type: none"> <li>• Definition and importance of anatomy physiology &amp; kinesiology,</li> <li>• Function of skeleton system.</li> <li>• Respiratory system</li> <li>• Circulatory system</li> <li>• Equilibrium</li> </ul>	Briefly explain about the human body & the shape, size, location of various body organs and also explain their functioning process.	Students will deeply interact with their own body. Different body organs and their mutual functioning. Students will improve the functioning & performance of their body by use this knowledge practically

Nov	-	-	15	10	9. Psychology & sports.	<ul style="list-style-type: none"> <li>• Definition and importance of Psychology &amp; sports.</li> <li>• Definition &amp; difference between growth &amp; development</li> <li>• Developmental characteristics at different age.</li> <li>• Adolescent problems &amp; their management.</li> </ul>	Explain about human psychology its definition and importance in physical education, explain the difference between growth & development and characteristics at different stage of life. Also explain about adolescent problems & their management.	Students will learn about the human behavior (psychology) concept of growth and development and adolescent problem and their management students can improve their behavior and able to manage their adolescent problems easily.
Dec	-	-	-	15	10. Training & Doping in sports.	<ul style="list-style-type: none"> <li>• Meaning &amp; principles of sports training</li> <li>• Concept of warming-up &amp; Limbering down</li> <li>• Skill, Technique &amp; style</li> <li>• Concept of Doping</li> <li>• Pro habited products and their side effects</li> <li>• Dealing with alcohol and abuse substance.</li> </ul>	Explain the concept of sports training its meaning & principles and also explain about warming-up & limbering down. Difference between skills Technique and style. Explain the concept of doping.	Students will get proper knowledge about sports training to improve the stand red of sports by using this knowledge practically they aware about the use of warming up & limber down they also aware about the doping procedure & now to create a drug free sports environment.

➤ **A class test of 20 mark will take after complete each unit.**

## Physic (Class-XI- C.B.S.E) Curriculum-2019-20

MONTHS	DAYS	PT-1	PT-2	HALF YEARLY	PT 3	FINAL	NAME OF THE CHAPTER	N.C.E.R.T (TOPICS)	Period Number	Learning Objectives	Learning Outcomes
April	21	20		7		5	<b>Physical World</b>	Physics-scope and excitement; nature of physical laws; Physics, technology and society.	3	The Objective of this chapter is to make the learners aware of basic fundamentals and derived quantities of Physics. The Objective of this chapter is to make the learners to know about the different types of measurement system of units and significance & application of dimensional analysis.	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.
		20		8		5	<b>Units and Measurements</b>	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Length, mass and time measurements; accuracy and precision of measuring instruments; errors in measurement; significant figures. Dimensions of physical quantities, dimensional analysis and its applications.	7		

							<p><b>Motion in a straight line.</b></p> <p>Frame of reference, Motion in a straight line: Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion. Uniform and non-uniform motion, average speed and instantaneous velocity. Uniformly accelerated motion, velocity time and position-time graphs.</p> <p>Relations for uniformly accelerated motion (graphical treatment)</p>	<p><b>11</b></p>	<p>The Objective of this chapter is to clear the concept of motion of a body with relating it to real life examples and to have basic concept of calculus method to derive three basic equations of kinematics. Also the learners will know about the graphical treatment of different types of motion.</p>	<p>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.</p>
<p><b>Ma</b> <b>y</b></p>	<p><b>13</b></p>	<p>20</p>	<p>12</p>	<p>6</p>	<p><b>Motion in a plane.</b></p> <p>Scalar and vector quantities; Position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors. Relative velocity. Unit vector; Resolution of a vector in a plane - rectangular components. Scalar and Vector product of vectors.</p> <p>Motion in a plane, cases of uniform velocity and uniform acceleration-projectile motion. Uniform circular motion. Intuitive concept of force. Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion.</p> <p>Law of conservation of linear momentum and its applications.</p>	<p><b>NCERT With self made Question Booklets.</b></p> <p><b>13</b></p>	<p>The Objective of this chapter is to clear the concept of Vector analysis of a physical quantities and to understand the concept of vector algebra (addition subtraction)</p> <p>The Objective of this chapter is to know about projectile motion of body and calculation of its different parameters with real life examples.</p>	<p>Learners will be able to understand basics of Scalar and Vector quantities along with its athematical analysis (Addition, subtraction, Product, Resolution, Projection)</p> <p>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)</p>		

<b>June</b>	<b>14</b>		20	12		7	<b>Laws of motion</b>	Equilibrium of concurrent forces. Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on banked road).	<b>14</b>	The Objective of this chapter is to clear the concept of Forces Momentum and different laws of motion given by Sir Newton. The Objective of this chapter is to make the student aware of Dynamics of circular which solves many problems in our society.	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
<b>July</b>	<b>20</b>			10		5	<b>Work, Energy and Power</b>	Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: conservation of mechanical energy (kinetic and potential energies); non-conservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	<b>NCERT With self made Question Booklets.</b>  <b>12</b>	The Objective of this chapter is to clear the concept Work, Energy and Power and its application in our daily life which helps us to approach and to solve the Problem technically.	Learners will be able to understand the Basic concept of work done along with its athematical analysis and Classification of work. Learners will be able to understand the Concept of mechanical energy, differentforms energy and its conservation with necessary mathematical analysis. Learners will be able to understand the Mechanical power along with its Practical and SI units.
				11		6					

						<b>System of Particles and Rotational Motion</b>	<p>Centre of mass of a two-particle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, laws of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration. Values of moments of inertia, for simple geometrical objects (no derivation). Statement of parallel and perpendicular axes theorems and their applications.</p>	<b>18</b>	<p>The Objective of this chapter is to clear the concept of rotational dynamics by relating it with the motion of body in a straight line. The Objective of this chapter is to clear the concept 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.</p>	<p>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.</p>
<b>August</b>	<b>18</b>		10	6	<b>Gravitation</b>	<p>Keplar's laws of planetary motion. The universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential. Escape velocity. Orbital velocity of a satellite. Geo-stationary satellites.</p>	<b>NCERT With self made Question Booklets.</b>  <b>12</b>	<p>To make the learners to understand the concept of gravitational force and gravity with laws of planetary motion and detailed mathematical analysis of acceleration due to gravity above and below the surface of earth.</p>	<p>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.</p>	



					<b>10</b>	<b>Mechanical Properties of Solids</b>	Elastic behaviour, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity, Poisson's ratio; elastic energy.  Revision & First Term Exam		To make the learners to understand the concept of elasticity and rigidity of a body with stress-strain analysis and applying it to solve real life problems.	Learners will be able to understand Practicality of different types of Elastic moduli and Relation between stress and strain.
<b>September</b>						<b>Revision &amp; Exams</b>				
<b>Oct.</b>	<b>17</b>	<b>6</b>			<b>10</b>	<b>Mechanical Properties of Fluids</b>	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes). Effect of gravity on fluid pressure.  Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity. Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.	<b>NCERT With self made Question Booklets.</b>  <b>8</b>	To make the learners to understand the concept of Fluid dynamics and its application for our daily life. (Viscosity, types of flows, capillarity and its applications)	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
					<b>10</b>	<b>Thermal Properties of Matter</b>	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity.  Heat transfer-conduction, convection and radiation, thermal conductivity, Qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law, Green	<b>9</b>	To make the learners to understand the concept of heat transfer between the bodies and its different methods along with its mathematical analysis and relating it to our daily life.	Learners will be able to understand the Different methods of heat transfer, Concept of thermal expansion and Laws of cooling.

Nov .	20	8			10	5	<b>Thermodynamics</b>	<p>Thermal equilibrium and definition of temperature (zeroth law of thermodynamics). Heat, work and internal energy. First law of thermodynamics. Isothermal and adiabatic processes.</p> <p>Second law of thermodynamics: reversible and irreversible processes. Heat engine and refrigerator.</p>	<b>NCERT With self made Question Booklets. 12</b>	To make the learners to understand the concept of Thermodynamics and its different laws along with the concept of engine and refrigerator with different law and process of thermodynamics.	Learners will be able to understand the Concept of Heat, work and Internal energy of the system. Learners will be able to understand the Principle of Heat Engine and Refrigerator.
						5	<b>Kinetic Theory</b>	<p>Equation of state of a perfect gas, work done in compressing a gas.</p> <p>Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.</p>	<b>8</b>	To make the learners to understand the concept of Motion of gaseous particles along with mathematical analysis of pressure exerted by a gas and K.E of a gaseous particles.	Learners will be able to understand theof 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.
Dec .	26	8			5	<b>Oscillations</b>	<p>Periodic motion - time period, frequency, displacement as a function of time. Periodic functions.</p> <p>Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a spring-restoring force and force constant; energy in S.H.M. Kinetic and potential energies;</p>	<b>NCERT With self made Question Booklets. 13</b>	To make the learners to understand the concept of Wave motion and SHM along with its different application and mathematical analysis and also to learn basics of oscillations and its types.	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	

								<p>simple pendulum derivation of expression for its time period.</p> <p>Free, forced and damped oscillations (qualitative ideas only), resonance.</p>			<p>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</p>
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							<p><b>Waves</b></p> <p>Wave motion. Transverse and longitudinal waves, speed of wave motion. Displacement relation for a progressive wave. Principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats, Doppler effect.</p>	<p>13</p>	<p>To make the learners to understand the concept of Wave motion, beats and doppler's effect relating it to our daily life.</p> <p>(</p>	<p>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. Learners will be able to understand the Practicality in variation in frequency of sound due to relative motion between source and observer (Doppler's Effect)</p>
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