

SYLLABUS 2021-2022

CLASS-10

SUBJECT: SCIENCE

Month	No. of Units	Content		
		Theory	Practical	
JANUARY	4	<p align="center">Physics</p> <p>3. Thermal Physics</p>	<p>Introduction</p> <p>3.1 Temperature</p> <p>3.1.1 Absolute scale (Kelvin scale) of temperature</p> <p>3.1.2 Thermal equilibrium</p> <p>3.2 Thermal Energy</p> <p>3.2.1 Characteristic features of heat energy transfer</p> <p>3.2.2 Other units of Heat energy</p> <p>3.4 Fundamental laws of gases</p> <p>3.4.1 Boyle's law</p> <p>3.4.2 Charles' law</p> <p>3.4.3 Avogadro's law</p> <p>3.5 Gases</p> <p>3.5.1 Real gases</p> <p>3.5.2 Ideal gases</p>	<p>3. Determination of resistivity</p>
		<p align="center">Chemistry</p> <p>8. Periodic Classification of Elements</p>	<p>Introduction</p> <p>8.1 Modern periodic law</p> <p>8.2 Modern periodic table</p> <p>8.2.1 Features of periods</p> <p>8.2.2 Features of groups</p> <p>8.6. Properties of metals</p> <p>8.6.1 Physical properties</p> <p>8.6.2 Chemical properties</p> <p>8.10 Alloys</p> <p>8.10.1 Amalgam</p> <p>8.10.2 Method of making alloys</p> <p>8.10.3 Types of alloys</p> <p>8.11 Corrosion</p> <p>8.11.2 Methods of preventing corrosion</p>	



JANUARY	Biology	<p>Introduction</p> <p>14.1 Means of Transport in Plants</p> <p>14.1.1 Diffusion</p> <p>14.1.2 Active Transport</p> <p>14.1.3 Osmosis</p> <p>14.2 Root hair – water absorbing unit</p> <p>14.3 Pathway of water absorbed by roots</p> <p>14.4 Types of movement of water into the root cells</p> <p>14.4.1 Apoplast Pathway</p> <p>14.4.2 Symplast Pathway</p> <p>14.5 Transpiration</p> <p>14.5.1 Factors affecting transpiration,</p> <p>14.6 Root pressure</p> <p>14.7 Uptake of minerals</p> <p>14.8 Translocation of Mineral Ions</p> <p>14.9 Phloem Transport</p> <p>14.10 Translocation of sugars</p> <p>14.12 Blood</p> <p>14.15 Structure of Human heart</p> <p>14.15.2 Heart Beat</p> <p>14.17 Blood Groups</p>	13. Identification of Blood cells
	Biology	<p>Introduction</p> <p>16.1 Plant Hormones</p> <p>16.1.1 Auxins (Except Went's Experiment)</p> <p>16.1.2 Cytokinins</p> <p>16.1.3 Gibberellins</p> <p>16.2 Human Endocrine glands</p> <p>16.2.1 Pituitary Gland</p> <p>16.2.2 Thyroid Gland</p> <p>16.2.4 Pancreas (Islets of Langerhans)</p> <p>16.2.5 Adrenal Gland</p> <p>16.2.6 Reproductive Glands</p> <p>16.2.7 Thymus Gland</p>	





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		Theory	Practical	
FEBRUARY	4	Physics 4. Electricity	Introduction 4.1 Electric Current 4.1.1 Definition of Electric Current 4.1.2 SI unit of Electric current 4.2 Electric circuit 4.2.1 Electrical components 4.3 Electric potential and Potential difference 4.3.1 Electric Potential 4.3.2 Electric Potential Difference 4.3.3 Volt 4.4 Ohm's law 4.5 Resistance of a material 4.5.1 Unit of Resistance 4.6 Electrical resistivity and electrical conductivity 4.6.1 Electrical resistivity 4.6.2 Conductance and Conductivity 4.8 Heating effect of current 4.8.1 Joule's Law of Heating 4.9 Electric power 4.9.1 Unit of electric power 4.9.2 Consumption of electrical energy	5. Testing the solubility of salt
		Chemistry 9. Solutions	Introduction 9.2 Components of solutions 9.3 Types of solutions 9.3.1 Based on the physical state of the solute and the solvent 9.3.2 Based on the type of solvent 9.3.3 Based on the amount of solute 9.3.4 Concentrated and dilute Solutions 9.6 Hydrated salts and water of crystallization 9.6.1 Copper sulphate pentahydrate 9.6.2 Magnesium sulphate heptahydrate 9.7 Hygroscopy 9.8 Deliquescence	





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		Theory	Practical	
FEBRUARY		<p>Biology</p> <p>17. Reproduction in Plants and Animals</p>	<p>Introduction</p> <p>17.3 Sexual Reproduction in Plants</p> <p>17.3.1 Parts of a Typical Flower</p> <p>17.3.2 Structure of the Ovule</p> <p>17.4 Pollination</p> <p>17.4.1 Types of Pollination</p> <p>17.6 Fertilization in Plants</p> <p>17.7 Sexual reproduction in human</p> <p>17.7.1 Male reproductive organ - Structure of Testes</p> <p>17.7.2. Female reproductive organ - Structure of Ovary</p> <p>17.8 Gametogenesis</p> <p>17.8.1 Structure of human Sperm</p> <p>17.8.2 Structure of human Ovum</p> <p>17.9 Menstrual cycle - Process of Ovulation</p> <p>17.14 Personal Hygiene</p> <p>17.14.1 Body Hygiene</p> <p>17.14.2 Toilet Hygiene</p> <p>17.14.3 Menstrual and napkin Hygiene</p>	<p>10. Mendel's monohybrid cross</p>
		<p>Biology</p> <p>18. Genetics</p>	<p>Introduction</p> <p>18.1 Gregor Johann Mendel – Father of Genetics</p> <p>18.2 Monohybrid cross-Inheritance of one gene</p> <p>18.3 Dihybrid Cross- Inheritance of two genes and Law of Independent Assortment</p> <p>18.4 Mendel's laws</p> <p>18.5 Chromosomes, DNA and genes</p> <p>18.5.1 Structure of a Chromosome</p> <p>18.5.4. Karyotype</p> <p>18.6 Structure of DNA</p> <p>18.6.1 Watson and Crick model of DNA</p> <p>18.6.2 DNA Replication</p> <p>18.6.3 Significance of DNA</p> <p>18.7. Sex Determination</p> <p>18.7.1. Sex Determination in Human</p>	

