

SYLLABUS 2021-22

CLASS - 12-Sci.

Content

Chemistry

Physics

Biology

Maths

English

Computer

Chemistry- 12th (Science)

S.N.	Month	Topic	Sub Concept	Activity
1	May/	Ch-1 The Solid State	<ul style="list-style-type: none"> - General characteristics - Amorphous & Crystalline - Classification of Crystalline solids - Crystal Lattice & Unit cell - No. of Atoms in Unitcell - Close packed structures - Packing Efficiency - Calculation Involving U.C - Imperfection in Solids - Electrical Properties - Magnetic properties 	- Lab & Videos
	June	Ch-2 Solutions	<ul style="list-style-type: none"> - Types of solutions & Concentration - Solubility - V.P of Liquid solution - Ideal & Non-Ideal solution - Colligative properties - Abnormal molar mass. 	- Lab & Videos
2	July	Ch-3 Electro chemistry	<ul style="list-style-type: none"> - Electrochemical cells - Galvanic cells & Nernst Eq. - Conductance of electrolytic sol. - Electrolytic cell & Electrolysis - Batteries ,Fuel cell, Corrosion 	- Lab & Videos
		Ch-4 Chemical Kinetics	<ul style="list-style-type: none"> - Rate & Factors of Reaction. - Integrated Rate Equation - Pseudo first order Reaction - Temperature dependance of the rate of a Reaction - Collision theory 	- Lab & Videos
3	Aug	Ch-5 Surface chemistry	<ul style="list-style-type: none"> - Adsorption & Catalysis - Classification of colloids colloids around us - Emulsions 	- Lab & Videos
		Ch-6 General Principles & Process of Isolation of Elements	<ul style="list-style-type: none"> - Occurrence of metals - Concentration of ores - Extraction of Crude metal - Thermodynamic C Principle of metallurgy - Electrochemical principle of metallurgy - Oxidation-Reduction, Refining & Uses 	- Lab & Videos
		Ch-7 The P-block Elements	<ul style="list-style-type: none"> - Classification & Types of Reactions - 15 to 18 Groups Elements & their compounds : Physical & chemical properties & uses 	- Lab & Videos
4	Sept	Ch-8 d & f-block Elements	<ul style="list-style-type: none"> - Position & Electronic configuration - General Properties - Some important compounds - Lanthanoid & Actinoids 	- Lab & Videos

Chemistry- 12th (Science)

S.N.	Month	Topic	Sub Concept	Activity
5	Sept	Ch-9 Co-ordination compounds	<ul style="list-style-type: none"> - Werner's Theory - Nomenclature & Isomerism - Bonding & Stability - Importance & Applications 	- Lab & Videos
6	Oct	Ch-10 Haloalkanes & Haloarenes	<ul style="list-style-type: none"> - Classification - Nomenclature - Nature of C-X bond - Methods of preparation of Haloalkanes - Preparations - Physical properties - Chemical Reactions 	<ul style="list-style-type: none"> - Lab & Videos - Lab & Videos
		Ch-11 Alcohols, phenol & Ethers	<ul style="list-style-type: none"> - Classification & Nomenclature - Structures & F.G - Alcohol & Phenols - Ethers 	- Lab & Videos
7	Nov	Ch-12 Aldehydes ketones & carboxylic Acids	<ul style="list-style-type: none"> - Nomenclature & Structure - Preparation of Aldehyde & ketone & Uses - Physical & chemical Reaction - Methods of preparation of carboxylic Acids & its physical & chemical Reactions & Uses 	- Lab & Videos
		Ch-13 Amines	<ul style="list-style-type: none"> - Structure, classification - Nomenclature, Preparation - Physical & Chemical properties - Methods of Preparation of Diazonium salts & importance 	- Lab & Videos
8	Dec	Ch-14 Biomolecules	<ul style="list-style-type: none"> - Carbohydrates, proteins & Enzymes - Vitamins, Nucleic Acids & Hormones 	- Lab & Videos
		Ch-15 Polymers	<ul style="list-style-type: none"> - Classification & Type of Reactions - Molecular mass of polymers - Biodegradable polymers - Polymers of commercial importance 	- Lab & Videos
		Ch-16 Chemistry in every day life	<ul style="list-style-type: none"> - Drugs & their classification - Drug-Target Interaction - Therapeutic Action - Chemical is in Food & cleansing agents 	- Lab & Videos
9	Jan	- Revision & Doubt solving	- Revision & Doubt solving	
10	Feb	- Revision & Doubt solving	- Revision & Doubt solving	
11	March	Board Exam		

STD.-12 – PHYSICS – 2021-22

Month	Chapters & Topics
June	Ch.1: Electric charges and fields Ch.2: Electrostatic potential & Capacitance
July	Ch.2: Electrostatic potential & Capacitance (contd.) Ch.3: Current Electricity
August	Ch.4: Moving Charges & Magnetism Ch.5: Magnetism & Matter
September	Ch.6: Electromagnetic Induction Ch.7: Alternating Current Ch.8: Electromagnetic Waves
October	Ch.9: Ray Optics & Optical Instruments
November	Ch.10: Wave Optics Ch.11: Dual Nature
December	Ch.12: Atoms Ch.13: Nuclei
January	Ch.14: Semiconductor Electronics: Materials, Devices & Simple Circuits

GSEB STD-12 BIOLOGY – 2021-22

Sr.No	Month	Topic	SubTopic	Activity
1	April	Ch.1 Reproduction in Organisms Ch.2 Sexual Reproduction in Flowering Plants Ch.4 Reproductive Health	- Asexual Reproduction - Sexual Reproduction - Flower - A Fascinating Organ of Angiosperms - Pre-fertilization: Structures and Events - Double Fertilization - Post-fertilization: Structure and Events - Apomixis and polyembryony - Health Problems and Strategies - Population Explosion & Birth Control - Medical Termination of Pregnancy - Sexually Transmitted Diseases - Infertility.	Practical in Biology Lab & Videos
2	June (18 d)	Ch.3 Human Reproduction Ch.5 Principles of Inheritance & Variation	- The Male Reproductive System - The Female Reproductive System - Gametogenesis - Menstrual Cycle - Fertilization & Implantation - Pregnancy & Embryonic Development - Parturition & Lactation - Mendel's Laws of Inheritance - Inheritance of One Gene	Practical in Biology Lab &V ideos
3	July (22 d)	Ch.5 Continued.. Ch.6 molecular Basis of Inheritance	- Inheritance of Two Genes - Sex Determination - Mutation - Genetic Disorders - The DNA - The Search for Genetic - RNA World - Replication - Transcription - Genetic Code - Translation - Regulation of Gene Expression - Human Genome Project - DNA Fingerprinting	Practical in Biology Lab &V ideos
4	Aug (18 d)	Ch.7 Evolution Ch.8 Human Health & Disease	Origin of Life - Evolution of Life Forms Theory - What are the evidences for Evolution? - What is Adaptive Radiation? - Biological Evolution - Mechanism of Evolution - Hardy Weinberg Principle - A Brief Account of Evolution - Origin & Evolution of Man Common Diseases in Humans - Immunity - AIDS - Cancer - Drugs & Alcohol Abuse	Practical in Biology Lab & Video

5	Sep (25 d)	Ch.9 Strategies For Enhancement In Food Production Ch.10 Microbes In Human Welfare Ch.11 Biotechnology	- Animal Husbandry - -Plant Breeding - -Single Cell Proteins & Tissue Culture - Microbes in Household Products - Microbes in Industrial Products - Microbes in Sewage Treatment - Microbes in Production of Biogas - Microbes as Biocontrol Agents - Microbes as Biofertilisers - Biotechnology: Principles & Processes - Biotechnology & its Applications	Practical in Biology Lab & Video
6	Oct (18 d)	Ch.12 Biotechnology & its Applications Ch.13 Organisms & Populations	- Biotechnological Applications in Agriculture - Biotechnological Application in Medicine - Transgenic Animals - Ethical Issues - Organism & Its Environment - Populations	Practical in Biology Lab & Video
7	Nov (10 d)	14 Ecosystem	- Ecosystem- Structure & Function - Productivity - Decomposition - Energy Flow - Ecological Pyramids - Ecological Succession - Nutrient Cycling - Ecosystem services	Practical in Biology Lab & Video
8	Dec (25 d)	Ch.15 Biodiversity & conservation Ch.16 Environmental Issues	- Biodiversity - Biodiversity Conservation - Air Pollution & its Control - Water Pollution & its Control - Solid Wastes - Agro-chemical & their effects - Radioactive Wastes - Greenhouse Effect & Global Warming - Ozone Depletion in the Stratosphere - Degradation by Improper Resource Utilization & Maintenance	Practical in Biology Lab & Video
9	Jan (15 d)	Revision	-	-
10	Feb (22 d)	Revision	-	-
11	Mar	Revision	-	-

Std -12/Sci**Sub - Maths**

Month	Chapters & Topics	Sub Topics
April	Ch.1: Relations and Functions Ch.2: Inverse Trigonometric Functions	<ul style="list-style-type: none">- Types of Relations- Types of Functions- Composition of Functions and Invertible Function- Binary Operations - Basic Concepts- Properties of Inverse Trigonometric Functions
May/ June	Ch.3: Matrices Ch.4: Determinants	<ul style="list-style-type: none">- Types of Matrix- Operations on Matrices- Transpose of a Matrix- Symmetric and Skew Symmetric Matrices- Elementary Operation of a Matrix- Invertible Matrices - Properties of Determinants- Area of a Triangle- Minors and Cofactors- Adjoint and Inverse of Matrix- Applications of Determinants and Matrices
July	Ch.5: Continuity and Differentiability Ch.6: Application of Derivatives	<ul style="list-style-type: none">- Continuity- Differentiability- Exponential and Logarithmic Functions- Logarithmic Differentiation- Derivatives of Functions in Parametric Forms- Second Order Derivative- Mean Value Theorem - Rate of Change of Quantities- Increasing and Decreasing Functions- Tangents and Normals- Approximations- Maxima and Minima
August	Ch.7: Integrals	<ul style="list-style-type: none">- Integration as an Inverse Process of Differentiation- Method of Integration- Integrals of some Particular

		<p>Functions</p> <ul style="list-style-type: none"> - Integration by Partial Fractions - Integration by Parts - Definite Integral - Fundamental Theorem of Calculus - Evaluation of Definite Integrals by Substitution - Some Properties of Definite Integrals
Sep	<p>Ch.8: Application of Integrals</p> <p>Ch.9: Differential Equations</p>	<ul style="list-style-type: none"> - Area Under Simple Curves - Area Between Two Curves - Basic Concepts - General and Particular Solutions of a Differential Equation - Formation of Differential Equation whose General Solution is given - Methods of Solving First order, First Degree Differential Equations
Oct	<p>Ch.10: Vector Algebra</p> <p>Ch.11: Three Dimensional Geometry</p>	<ul style="list-style-type: none"> - Some Basic Concepts - Types of Vectors - Addition of Vectors - Multiplications of Vectors by a Scalar - Product of Two of Vectors - Direction Cosines and Direction Ratios of a Line - Equation of a line in space - Angle between two lines - Shortest distance between two lines - Plane - Coplanarity of two lines - Angle between two planes - Distance of a point from of a plane - Angle between a line and a plane

Nov	Ch.11: Three Dimensional Geometry (Continue) Ch.12: Linear Programming	<ul style="list-style-type: none"> - Linear Programming Problem and its Mathematical Formulation - Different types of linear programming problems
Dec	Ch.13: Probability	<ul style="list-style-type: none"> - Conditional Probability - Multiplication Theorem on Probability - Independent Events - Bayes' Theorem - Random Variables and its Probability Distributions - Bernoulli Trials and Binomial Distribution
Jan	- Revision	
Feb	- Revision	

STD. – 12 – ENGLISH – 2021-22

❖ SYLLABUS:

Month	Topic
JUNE	<ul style="list-style-type: none">- THE LAST LESSON- LOST SPRING- MY MOTHER AT SIXTY SIX Question tag Tenses Email formal/informal Job application
JULY	<ul style="list-style-type: none">- AN ELEMENTARY SCHOOL CLASSROOM IN A SCHOOL- THE THIRD LEVEL- THE TIGER KING Advertisement Active passive voice Letter formal/informal Remove "too" <ul style="list-style-type: none">- REVISION
AUGUST	<ul style="list-style-type: none">- DEEP WATER- KEEPING QUIET- JOURNEY TO THE END OF THE EARTH Rectify the errors Transformation of sentences <ul style="list-style-type: none">- Note making
SEPTEMBER	<ul style="list-style-type: none">- THE RATTRAP- A THING OF BEAUTY- THE ENEMY- SHOULD WIZARD HIT MOMMY?

	<p>Figure of speech Transformation of sentence Direct indirect speech Ways of expression -</p>
OCTOBER	<p>- INDIGO - A ROAD SIDE STAND Idioms and phrases Revision</p>
NOVEMBER	<p>- THE INTERVIEW - AUNT JENNIFER'S TIGER - ON THE FACE OF IT Data interpretation Punctuation -</p>
December	<p>- POETS AND PANCAKES - GOING PLACES - EVANS TRIES AN O-LEVEL - MEMORIES OF CHILDHOOD Essay writing Speech writing Note making Unseen comprehension - REVISION</p>