CLASS XII
PHYSICS

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

UNIT	TOPICS TO BE DELETED
I	..... it's 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). Conductors and insulators, ... combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates,
II	..... Ohm's law, electrical resistance, V-I characteristics (linear and non linear), electrical energy and power, electrical resistivity and conductivity. Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors;
III	Magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis. Torque on a magnet dipole (bar magnet) in a uniform magnetic field; Para, dia and ferro-magnetic substances, with examples. Electromagnets and factors affecting their strengths. Permanent magnets.
VI	Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and it's applications, refraction at spherical surfaces, Scattering of light-blue colour of the sky and reddish appearance of the sun at sunrise and sunset. ....astronomical telescopes (reflecting and refracting) and their magnifying powers.
VII	Davisson-Germer experiment (experimental details should be omitted; only conclusion should be explained).
VIII	Radioactivity- alpha, beta and gamma particles/rays and their properties; radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and it's variation with mass number; nuclear fission and fusion.
IX	I-V characteristics of LED, photodiode, solar cell, and Zener diode; Zener diode as a voltage regulator.
X	Production and detection of an amplitude-modulated wave.

2. Practicals - 30 Marks:

The following points shall be given to the students in lieu of practical classes/examination by the institutions:

1. Students shall write at least 6 (six) experiments from each section (i.e Section A & B) in their practical record book.
2. Students shall record apparatus, theory, formula, procedures and table for each experiment in the practical record book.
3. Students while writing experiment shall draw all the apparatus/equipments to be used in the experiment in their record book.
4. Teachers shall give some probable values where students can use it and solve it using the formula given in the experiments.
5. Besides the activities given in the syllabus, teachers should encourage the students to try/practice other activities related to the subject which can be done at home.
6. All activities performed shall be recorded in their record book.
7. Teachers shall constantly guide the students for their practical/activities.
8. Questions which test understanding or application of the experiment should be given by the teachers in place of viva for students to answer and record in their practical record book.

Evaluation Scheme for Practical Assessment:

1.	Six experiment from each section		9+9=18 marks
2.	Activities from each section	3+3=	6 marks
3.	Practical record book (experiments & activities)	3+3=	6 marks
		Total	**30 marks**

Note: The unit-wise weightage remains the same as given in the Syllabus.

CHEMISTRY

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

UNIT	TOPICS TO BE DELETED
I	....electrical and magnetic properties, Band theory of metals, conductors, semiconductors and insulators and n and p type semiconductors.
III	.....electrolysis and laws of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells; lead accumulator, fuel cells corrosion.
IV	Concept of collision theory (elementary idea, no mathematical treatment). Activation energy, Arrhenious equation.
V	Catalysis: homogeneous and heterogeneous, activity and selectivity: enzyme catalysis; emulsion – types of emulsions.
VI	Unit shall be deleted.
VII	Oxides of nitrogen (structure only); Phosphorus – allotropic forms; compounds of phosphorus: preparation and properties of phosphine, halides (PCl_3, PCl_5) and oxoacids (elementary idea only). Sulphuric acid: industrial process of manufacture,
VIII	Chemical reactivity of lanthanoid. Actinoids – Electronic configuration, oxidation states and comparison with lanthanoids. Preparation and properties of $KMnO_4$ and $K_2Cr_2O_7$.
IX	Isomerism (structural and stereo) importance of coordination compounds (in qualitative analysis, extraction of metals and biological systems).
X	Uses and environmental effects of – dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.
XI	Uses with special reference to methanol and ethanol.
XIII	Diazonium salts: Preparation, reactions and importance in synthetic organic chemistry.
XIV	Oligosaccharides (sucrose, lactose, maltose) polysaccharides (starch, cellulose, glycogen); importance. Enzymes. Hormones – Elementary idea (excluding structure) Vitamins – classification and functions.
XV	Whole unit shall be deleted.
XVI	Unit shall be deleted.

2. Unit – wise Weightage (Redistributed Marks) for 2020

Theory Paper Time: 3 hours Marks: 70

Unit	Topic	Marks
I	Solid State	5
II	Solutions	5
III	Electrochemistry	6
IV	Chemical Kinetics	6
V	Surface Chemistry	4
VII	p- Block Elements	8
VIII	d- and f- Block Elements	5
IX	Coordination Compounds	3
X	Haloalkanes and Haloarenes	5
XI	Alcohols, Phenols and Ethers	6
XII	Aldehydes, Ketones and Carbolixylic acids	7
XIII	Organic Compounds containing Nitrogen	6
XIV	Biomolecules	4
	Total	**70**

3. Internal Assessment:

The following points shall be given to the students in lieu of practical classes/examination by the institutions:

1. Students shall write all the procedures, observations, inferences and confirmations/results in their practical record book.
2. Students shall also draw all the apparatus to be used in salt analysis/qualitative analysis experiment in their record book.
3. Students shall write theory, reactions involved, procedures, observations, readings in the table and calculation etc. in their practical record book for volumetric analysis.
4. Students shall draw all apparatus to be used in volumetric analysis in their record book.
5. Teachers shall give some probable values for reading table in volumetric analysis so that students can use it for calculation and they may give a probable answer from the calculations.
6. Students shall write at least 3 (three) content based experiments with all requirements for the experiments and draw all apparatus to be used for experiments in their record book.
7. Besides the projects/activities given in the syllabus, teachers should encourage the students to try/practice other projects/activities related to the subject which can be done at home.
8. Teachers shall constantly guide students while doing projects/activities.
9. All projects/activities performed shall be recorded in their practical record book.
10. Teachers should give questions which tests understanding or applications of each experiment in place of viva for students to answer and record in their practical record book.

Evaluation Scheme for Practical Assessment:

1.	Volumetric Analysis	6 marks
2.	Salt Analysis	6 marks
3.	Content based Experiment	6 marks
4.	Project/Activities	7 marks
5.	Class Record/Viva	5 marks
	Total	**30 marks**

BIOLOGY

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

Unit I- Reproduction

Chapter 1: Reproduction in organisms:

Reproduction, a characteristic feature of all organisms for continuation of species; Modes of reproduction- asexual and sexual; Asexual reproduction; Modes- Binary fission, sporulation, budding, gemmule, fragmentation; vegetative propagation in plants.

Chapter 3: Human reproduction:

Microscopic anatomy of testis and ovary.

Unit II- Genetics and Evolution

Chapter 6: Molecular basis of inheritance/ (Heredity and variation)

Genome and Human genome project: DNA finger printing.

Chapter 7: Evolution:

Origin of life; Biological evolution and evidences for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence); Darwin's contribution, Modern synthetic theory of evolution; Mechanism of evolution-Variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy-Weinberg's principle, adaptive radiation, human evolution.

Unit III- Biology and Human Welfare

Chapter 9: Strategies for enhancement in food proteins/ (Improvement in food production)

Single cell protein.

Chapter 10: Microbes in human welfare:

Apiculture and animal husbandry.

Unit V- Ecology and environment

Chapter 16: Environmental issues:

Air pollution and its control; Water pollution and its control; Agrochemicals and their effects, solid waste management, radioactive waste management, greenhouse effects; Solid waste management; Radioactive waste management, greenhouse effect and global warming; Ozone depletion; Deforestation; Any three case studies as success stories addressing environmental issues.

Note: The unit-wise weightage remains the same as given in the Syllabus.

2. Internal (Practical) **Marks: 30**

A. List of experiments/spotting

1. Study of plant population density by quadrat method.
2. Study of plant population frequency by quadrat method.
3. Study of flowers adapted to pollination by different agencies(wind, insect).
4. Study of Mendelian inheritance using seeds of different colour/size of plant.
5. Study pedigree charts of genetic traits.
6. Exercise on controlled pollination: emasculation, bagging and tagging.
7. Study the morphological adaptations of two plants found in xerophytic conditions.
8. Study the morphological adaptations of two animals found in xerophytic conditions.
9. Study the morphological adaptations of two plants found in aquatic conditions.
10. Study the morphological adaptations of two animals found in aquatic conditions.

All experiments performed shall be recorded in their record book.

B. Prepare a model on the topic of your choice and make a video presentation of it. (The video should be of minimum 5 mins and maximum 10 mins).

N.B-

- ***All experiments performed shall be recorded in their practical record book.***
- ***Apart from practical experiments given in the syllabus, the teacher can implement other experiments/activities relevant to the subject to encourage the students in learning at home.***

Evaluation scheme for practical assessment:	**Marks**
A. Two experiments	7x2=14
B. Videography presentation	10
C. Practical record and Viva	6
Total	**30**

MATHEMATICS

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

Unit I: Relations and Functions

1. Relations and Functions

Binary operations.

2. Inverse Trigonometric Functions

Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric functions.

Unit II: Algebra

1. Matrices

Concept of elementary row and column operations. Proof of the uniqueness of inverse, if it exists.

2. Determinants

Properties of determinants, minors. Applications of determinants in finding the area of a triangle. Consistency, inconsistency and number of solutions of system of linear equations by examples.

Unit III: Calculus

1. Continuity and Differentiability

Continuity. Logarithmic differentiation. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric interpretations.

2. Applications of Derivatives

Use of derivatives in approximation.

3. Integrals

Integration using Trigonometric Identities. [Delete Ex: 7.3]

Integrals of the type:

$$\int \frac{dx}{\sqrt{ax^2+bx+c}}, \int \frac{(px+q)}{\sqrt{ax^2+bx+c}}dx, \text{ and } \int (px+q)\sqrt{ax^2+bx+c}\,dx$$

Definite integrals as a limit of a sum.

4. Applications of the Integrals

Area between two curves.

5. Differential Equations

General and particular solutions of a differential equation. Formation of differential equation whose general solution is given. Solutions of linear differential equation of the type: $\frac{dx}{dy} + Px = Q$, where P and Q are functions of y or constant

Unit IV: Vectors and Three-Dimensional Geometry

1. Vectors

Scalar triple product of vectors.

2. Three-dimensional Geometry

Angle between (i) two lines, (ii) two planes, (iii) a line and a plane.

Unit VI: Probability

Probability

Repeated independent (Bernoulli) trials and Binomial distribution

Note: The unit-wise weightage remains the same as given in the Syllabus.

COMPUTER SCIENCE

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

UNIT	Suggested for Deletion/Retention of Syllabus
I	Chapter 7 - File Handling in C++ (12 periods) Chapter 8 - Pointers
II	Chapter 3 – Queues (6 periods)
III	Chapter 1 - Database Concepts (6 periods) Chapter 2 - Structured Query Language (12 periods)
V	Chapter 2 - Open Source Technologies (6 periods)

Note: The unit-wise weightage, internal marks and areas of assessment remains the same as given in the Syllabus.

INFORMATIC PRACTICES

1. Unit/Chapter/Topics deleted from the Syllabus for 2020

Unit	Suggested for Deletion/Retention of Syllabus
Unit II (Programming with Java)	**Chapter 6.**Web technology **Chapter 7**. Developing data driven application using MySQL and Java.
Unit IV (IT Applications)	**Chapter10**.IT Applications- Case Studies

Note: The unit-wise weightage, internal marks and areas of assessment remains the same as given in the Syllabus.