CLASS X SCIENCE

(Omitted & Selected)

CHAPTER	NAME OF CHAPTER	OMITTED TOPICS	SELECTED TOPICS
PHYSICS			
1	**Light-Reflection and Refraction**	Application of spherical mirrors and lenses / Numerical based on mirror & lens formula (i.e. solved numerical in page 12-17, 26-27, 37 - 41 and questions of the same type)	Textbook page number 1-36 except numerical problems on page 12-17 and 26-27.
2	**The Human Eye and the Colourful World**	Functioning of lens in humaneye; problems of vision and remedies. Applications of spherical mirrors and lenses. (Page No 47 – 55)	Page 55 – 63 (Starting from PRISM)
3	**Electricity**	NIL	Whole Chapter
4	**Magnetic Effects of Electric Current**	Direct current. Alternating current; frequency of AC. Advantage of AC over DC. Domestic electric circuits. Page 112 – 118 (Starting from Electric Generator – MCB)	Page 97 – 111 (Starting from Magnet – Fleming's Right Hand Rule)
5	**Sources of Energy**	Whole Chapter	NIL

CHEMISTRY			
6	**Periodic Classification of Elements**	Page No 145 – 150	Page No 150 – 167 (Starting from Modern Periodic Table)
7	**Chemical Reactions and Equations**	No Omission	Whole Chapter
8	**Metals and Non-Metals**	Page No 210 – 217 (Starting from Metals & Metallurgy)	Page No 195 – 210 Page No 217 – 220 (Startingfrom Alloys)
9	**Acid, Bases and Salts**	Page No 230 – 233 (Starting from dilution of acid – Role of water to explain thebasic nature of bases)	Page No 225 – 230 Page No 233 – 250 (Startingfrom chemical definition of base.
10	**Carbon and its compounds**	Page 277 – 291 (Starting from types of structuralisomerism) Page 294 - 296 (Starting from Synthetic detergents)	Page No 255 – 277 Page No 292 - 294 (Starting from Soaps & Detergents)
BIOLOGY			
11	**Life Processes**	NIL	Whole Chapter
12	**Control and Coordination**	Whole Chapter	NIL
13	**How do Organisms Reproduce?**	NIL	Whole Chapter
14	**Heredity and Evolution**	Page 397 – 403 (Evolution part)	Page 391 – 397 (Heredity part)
15	**Our Environment**	NIL	Whole Chapter
16	**Management of Natural Resources**	Whole Chapter	NIL

Weightage to Content Area :

Unit	Topic	Marks
1	Light	12
2	The Human Eye	
3	Electricity	12
4	Magnetic Effects	
5	Periodic Classification	07
6	Chemical Reactions	
7	Metals and Non-Metals	10
8	Acids, Bases and Salts	
9	Carbon	06
10	Life Process	09
12	How do Organisms Reproduce	05
13	Heredity and Evolution	04
14	Our Environment	05
	Total	70

Weightage to Form of Questions :

Sl/no.	***Form of Questions***	***No. of Questions***	***Marks for each question***	***Total Marks***
2.1	Objective Type	14	1	14
2.2	Very Short Answer	07	1	07
2.2	Short Answer I	08	2	16
2.3	Short Answer II	07	3	21
2.4	Long Answer	03	4	12
	TOTAL	**39**		**70**

Scheme of option :

There shall not be any overall choice in the question paper. However, internal choice on a very selective basis shall be given based on same objective. It shall also have same mark allotment and same difficulty level.

Scheme of Section :

There shall be three sections namely Section A (Physics), Section B (Chemistry) and Section C (Biology).

Sample Blue Print : Science - 10

Forms of Question/ Topic	Knowledge					Understanding					Application					HOTS					Evaluation					Total
	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	Obj	VSA	SA I	SA II	LA	
Light The Human Eye		1(1)		3(1)		1(1)			3(1)							2(2)							2(1)			**12(7)**
Electricity			2(1)											3(1)		4(1) 2(2)					1(1)					**12(6)**
Magnetic Effects Periodic Classification							1(1)			4(1)			2(1)													**7(3)**
Chemical Reactions																										
Metals and Non- Acids, Bases and Salts			2(1)			2(2)			3(1)							1(1)							2(1)			**10(6)**
Carbon		1(1)					1(1)						2(1)			1(1)					1(1)					**6(5)**
Life Process	2(2)		2(1)	3(1)		1(1)																1(1)				**9(6)**
How do Organisms reproduce										1(1)							1(1)									**5(2)**
Heredity and Evolution				3(1)			1(1)																			**4(2)**
Our Environment			2(1)											3(1)												**5(2)**
Sub - total	**2(2)**	**2(2)**	**8(4)**	**9(3)**		**4(4)**	**3(3)**		**6(2)**	**8(2)**			**4(2)**	**6(2)**		**4(1) 6(6)**	**1(1)**				**2(2)**	**1(1)**	**4(2)**			**70(39)**
Total	**21(11)**					**21(11)**					**14(5)**					**7(7)**					**7(5)**					

Note : 1) The figures in the bracket denotes the number of questions.

2) This is only a sample Blue Print. The question setter may develop his/her own Blue Print as per the question design.

Omitted PRACTICALS 10

1. To find the pH of the following samples by using pH paper/universal indicator.
   i) Dilute Hydrochloric acid
   ii) Dilute NaOH solution
   iii) Dilute Ethanoic acid solution
   iv) Lemon juice
   v) Water
   vi) Dilute Sodium Bicarbonate Solution.

7. To determine the equivalent resistance of two resistors when connected in parallel.

8. To prepare a temporary mount of a leaf peel to show stomata.

15. To study the following properties of acetic acid (ethanoic acid):
   i) odour
   ii) solubility in water
   iii) effect on litmus
   iv) reaction with sodium bicarbonate

Selected PRACTICALS 10

List of experiments

1. To study the properties of acids and bases HC1 & NaOH by their reaction with
   i) Litmus solution (Blue/Red)
   ii) Zinc metal
   iii) Solid Sodium Carbonate
2. To determine the focal length of
   a) Concave mirror
   b) Convex lens by obtaining the image of a distant object.

3. To trace the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.

4. To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I.

5. To determine the equivalent resistance of two resistors when connected in series.

6. To show experimentally that light is necessary for photosynthesis.

7. To show experimentally that carbon dioxide is given out during respiration.

8. To study (a) binary fission in Amoeba and (b) budding in yeast with the help of prepared slides.

9. To determine the percentage of water absorbed by raisins.

10. To prepare SO_2 gas, observe its following properties and draw inferences in respect of

i) odour
ii) solubility in water
iii) effect on litmus paper
iv) action on acidified potassium dichromate solution.

11. a) To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions,
i) $ZnSO_4$(aq.)
ii) $FeSO_4$ (aq.)
iii) $CuSO_4$ (aq.)
iv) $Al_2(SO_4)_3$(aq.)

b) Arrange Zn, Fe, Cu and Al metals in the decreasing order of reactivity based on the above result.