MODAL PAPER - I

PHYSICAL SCIENCES -I

(ENGLISH MEDIUM)

PART A & B

Class : X **Max. Marks: 40** **Time : 2.45 hr**

Marks : 30 **PART - A** **Time : 2 hr**

Note: 1) Write the answer of 'Part-A' on separate answer, booklet.
2) Answer the 'Part-B' on the same, and is attach to. the 'Part-A' Answer bóoklet.
3) Additional 15 minutes are given to. read the question paper, before start the examination.

SECTION - I

Note : **(4x1=4M)**

i) Answer all the following questions.
ii) Each question carries 1 Mark.

1. Why ice floats on water ?
2. Name the different apparatus where we are using the convex and concave lenses.
3. Which of the following salt has blue colour and why ?

   $CuSO_4.5H_2O(or)CuSO_4$
4. What happends when a small piece of Sodium is dropped into ethanol ?

SECTION - II

Note : **(5x2=10M)**

i) Answer all the following questions.

ii) Each question carries 2 Mark.

5. Write the difference between Realimage and virtual image.
6. Write the importance of 'rods' and 'cones' of retina.
7. Define the ohmic and non-ohmic conductors and give two examples each of them.

8. In the following table, the matching is done worngly. Re-write the following table correctly after making necessary corrections.

1.	Plaster of Paris	-	in glass industry
2.	Washing soda	-	for making toys
3.	Baking soda	-	in the preparation of chloroform
4.	Bleaching powder	-	faster cooking

9. What is thermite process ? Mention its applications in daily life.

SECTION - III

Note : **(4x4=16M)**

i) Answer all the following questions.
ii) Each question carries 4 Mark.

10. (a) Explain any four applications of specific hat in your daily life.

(or)

(b) How do you oppreciate the nature of ciliary muscles in eye ?

11. (a) Explain the significance of the three quantum numbers in predicting the postings of an electron in an atom ?

(or)

(b) Define the modern periodic law? Discuss the construction of the long form of the periodic table?

12. (a) Write the experimental method in verification of laws of reflection in plane mirrors.

(or)

(b) What is hybridisation ? Explain the for formation BF_3 molecule using hybridisation ?

(*a*) BF_3 (*b*) $BeCl_2$

13. (a) Draw the diagram of A.C generator and label the parts.

(or)

(b) Draw a neat labelled diagram to know the process of water when electricity is passed through it.

MODAL PAPER - I

PHYSICAL SCIENCES -I

(ENGLISH MEDIUM)

PART A & B

Class : X **Max. Marks: 40** **Time : 2.45 hr**

Marks : 10 **PART - B** **Time : ½ hr**

Note : Choose the correct answer. **(20x½=10M)**

14. Which of the following is the formula used to determine the specific heat of a substance? ( )

a) $S\frac{Q}{\Delta t}$ b) $S = Q\Delta t$ c) $S = \frac{Q}{m\Delta t}$ d) $S = \frac{m\Delta t}{Q}$

15. The minimum conditions to get shadows is ( )

a) Source of light b) An opaque object

c) a screen d) All of the above.

16. All normals of a concave mirror converge towards a point is called ( )

a) pole of the mirror b) Focus point

c) Centre of curvature d) Principal point

17. The light ray incident on a lens, the undevided situation is through ( )

a) F_1 b) F_2 c) P d) C_1

18. ..... light falling on it goes into the eye and coming back to the outside without any change of light. ( )

a) Cornea b) Pupil c) Retina d) lens

19. The actual shape of rainbow is ( )

a) Semi circular b) Circular c) Cone d) Sphere

20. The example of non-ohmic conductor ( )

a) Silver b) Copper c) Silicon d) Aliminium

21. The SI unit of magnetic flux is ( )

a) Dynes b) Ocrsted c) Gauss d) Weber

22. The device used for producing electric current is called a ( )

a) generator b) galvanometer c) ammeter d) motor

23. Which of the following process is the responsible for the formation of dew on the window-panes, flowers, grass etc, during winter season ? ( )

a) Condensation b) Melting c) Evaporation d) Freezing

24. Rancidity is ..... reaction ( )

a) a reduction b) a double displacement

c) an electrolytic d) an oxidation

25. Which of the following salt does not contain water of crystallization? ( )

a) Baking soda b) Gypsum c) Washing Soda d) Plaster of paris

26. Match the following ( )

	Set A		Set B
a)	l = 0 ( )	1)	f-sub shell
b)	l =1 ( )	2)	d-sub shell
c)	l = 2 ( )	3)	p-sub shell
d)	l = 3 ( )	4)	s-sub shell

a) a=2, b=1 c=4, d=3 b) a=3, b=2, c=1, d=4

c) a=4, b=3, c=2, d=1 d) a=1, b=3, c=2, d=4

27. Which of the following has largest size ( )

a) Mg^{2+} b) Rb^{+} c) Li^{+} d) Na^{+}

28. Which of the following do not have Ionic bond ( )

a) $NaCl$ b) HCl c) $MgCl_2$ d) $BaCl_2$

29. Match the following: ( )

Molecules		**Bond angles**
1. CH_4	**P)**	$107^\circ 48^1$
2. H_2O	**Q)**	180°
3. NH_3	**R)**	$104^\circ 31^1$
4. $BeCl_2$	**S)**	$109^\circ 28^1$

a) 1-P, 2-Q, 3-R, 4-S b) 1-S, 2-R, 3-Q, 4-P

c) 1-Q, 2-R, 3-P, 4-S d) 1-S, 2-R, 3-P, 4-Q

30. Which of the following oxides of iron would be obtained on prolonged reaction of iron with steam ( )

a) FeO b) Fe_2O_3 c) Fe_3O_4 d) Fe_2O_3 and Fe_3O_4

31. Example of Sulphide ore ( )

a) Carnalite b) Zinc blende c) Zn cite d) Magnatite

32. The hydrocarbon which can show isomerism is ( )

a) C_2H_6 b) C_3H_8 c) C_4H_{10} d) C_2H_4

33. The first artificial organic substance prepared in labouratory is ( )

a) Alcohol b) Ammonium Cynate

c) Butane d) Urea