

MODAL PAPER - II

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 booklet.
 - 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. Water melon brought out from the refrigerator retains its coolness for a long time than any other fruit. Why ?
2. What is the Solenoid ?
3. A substance 'X' is a mild base which gives relief from indigestion. Name the substance 'X' and write its formula.
4. Name two elements that you would expect to have chemical properties similar to Mg. What is the basis for your choice?

SECTION - II

Note :

(5x2=10M)

- i) Answer all the following questions.
- ii) Each question carries 2 Mark.

5. Write the differences between convex lens and concave lens.
6. Write the differences between 'Myopia' and 'Hyper metropia'.
7. Define the Lenz's law and explain it.
8. Assume the atomic numbers 9,34 belongs to which block ?
9. What is the difference between σ and π bonds ?

SECTION - III**Note :****(4x4=16M)****i) Answer all the following questions.****ii) Each question carries 4 Mark.**

10. (a) What do you understand by method of mixtures ? Using the concept of method of mixture. Derive the formula for the resultant temperature of two substances of mass m_1 and m_2 whose initial temperature are T_1 and T_2 (Note : $T_1 > T_2$).

(or)

- (b) Write the Experimental procedure in finding the refractive index of a prism.

11. (a) Explain the experiment to prove that on passing electricity, water dissociates to hydrogen and Oxygen.

(or)

- (b) How do you condemn the use of alcohol as a social practice ?

12. (a) Conduct an activity to show that resistance of a conductor is proportional to the length of the conductor for constant cross - section area and temperature.

(or)

- (b) Describe an activity to show that blue coloured copper sulphate contains water of crystallization.

13. (a) Draw a neat labelled diagram of Electricity Motor and label the parts.

(or)

- (b)



MODAL PAPER - II**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. The amount of water vapour present in air is called ()
 a) Humidity b) Fog c) Dew d) Smoke
15. On Which factors does the rate of evaporation depends ()
 a) Surface area of the liquid b) Temperature
 c) Amount of vapour already present in the surrounding air d) All the above
16. The principle given by Pierre de Fermat "Light Chooses the path which takes the to travel ()
 a) least distance b) least time c) less velocity d) Less speed
17. "The radius of curvature will be twice the distance of focal length", known by Uma, imagined a symbol for the statement. Find the symbol related to statement.()
 a) $R = 2f$ b) $2R = f$ c) $\frac{f}{R} = 2$ d) $R = f$
18. When a light ray passes from to medium, it deviates towards normal()
 a) denser-rarer b) Rarer, denser c) Denser-Denser d) Rarer rarer
19. Focal length of the lens depends on ()
 a) material by which it has been made b) radii of curvature
 c) both a and b d) none of the above
20. One Kilo watt hour (1 kwh) = ()
 a) $36 \times 10^6 J$ b) $36 \times 10^{10} J$ c) $3.6 \times 10^6 J$ d) $8.314 \times 10^8 J$
21. Consider the following statements ()
I : In series connection, the same current flows through each resistor
II : In parallel connection, the same potential difference gets applied across each resistor.
 a) Both I and II are correct b) I is correct but II is wrong
 c) I is wrong but II is correct d) Both I and II are wrong

22. Choose the set of matching answer ()
- | | |
|-----------------------------------|---|
| 1. Magnetic field line | A) Direction of magnetic field lines |
| 2. Electric motor | B) North pole to South pole |
| 3. Flemming left handule | C) Pair of slip rings |
| 4. Maxwell's right hand grip rule | D) Direction of motion of a conductor in a magnetic field |
- a) 1-D, 2-A, 3-C, 4-B b) 1-B, 2-A, 3-C, 4-D
c) 1-B, 2-C, 3-D, 4-A d) 1-B, 2-A, 3-D, 4-C
23. is vision defect indicaty that the power of accommodation of the eye usually decreases with ageing. ()
- a) Hypermetropia b) Myopia c) Colourblindness d) Presbyopia
24. Find the odd one out with respect to chemical double displacement reaction()
- a) $NaOH, HCl$ b) $NaCl, AgNO_3$ c) $Fe, CuSO_4$ d) $Pb(NO_3)_2, KI$
25. Which of the following can be used as antioxidants to prevent the spoilage of food?
- a) N_2, Cl_2 b) N_2, O_2 c) N_2 only d) O_2 only ()
26. Which of the following is a starting material for chlor-alkali process ()
- a) Chlorine b) Sodium chloride
c) Sodium hydroxide d) Alcohol
27. $1s^2 \quad 2s^2 \quad 2p^3$

↑↓	↑↓	↑↓	↑	
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 In this electronic configuration which rule is violate ()
- a) Aufbau b) Pauli c) Hund d) Bohr
28. Match the following ()
- | Molecule | Hybridisation |
|-------------|---------------|
| i) $BeCl_2$ | P) sp^3 |
| ii) BF_3 | Q) sp |
| iii) H_2O | R) sp^2 |
- a) i - Q, ii - P, iii - R b) i - Q, ii - R, iii - P
c) i - P, ii - Q, iii - R d) i - R, ii - P, iii - R
29. Which pair of elements is from the same period of the periodic table ()
- a) Cl, Br b) Na, Ca c) K, Br d) Cl, Li
30. Which among the following element has the largest atomic radii ()
- a) Na b) Mg c) K d) Ca
31. The molecules has one sigma bond and two pi bonds are ()
- a) HCl, CO_2 b) C_2H_2, N_2 c) N_2, C_2H_4 d) O_2, CO_2
32. The earthy impurities associated with mineral used in metallurgy are called()
- a) Slag b) Flux c) Gangue d) Ore
33. Match the following ()
- | | |
|--------------------|-----------|
| 1) Aldehyde | a) R-O-R |
| 2) Ketone | b) R-COOH |
| 3) Carboxylic acid | c) R COOR |
| 4) Ethers | d) R-CHO |
- a) 1-d, 2-c, 3-b, 4-a b) 1-d, 2-c, 3-a, 4-b
c) 1-c, 2-d, 3-a, 4-b d) 1-a, 2-b, 3-c, 4-d

