DISTRIBUTION FOR MARKS

CLASS - +2

SUBJECT - CHEMISTRY

Time : 3 hours **M.M. : 50**

S. No.	Unit	1 mark Ques.	2 mark Ques.	3 mark Ques.	Total Marks
1.	Solid state	3	–	1	6
2.	Solutions	3	–	1	6
3.	The P-Block Elements	4	2	–	8
4.	General Principles & process of isolation of elements	2	1	–	4
5.	Haloalkanes & Haloarenes	2	3	–	8
6.	Alcohols, Phenols & Carboxylic	2	3	–	8
7.	Biomolecules	3	–	1	6
8.	Polymers	1	–	1	4
	Total	**20**	**9**	**4**	**50**

PAPER TERM - 1

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Time : 3 hours **M.M. : 50**

Instructions:-

(i) All questions are compulsory

(ii) While answering your questions, you must indicate on your answer sheet the same question no as appearing in your question paper.

(iii) Internal choices are given in same questions.

(iv) Question No. 1–20 carry 1 mark, question 21–29 carry 2 marks, question 30–33 are of 3 marks.

1. For hap Lattice, the edge length is equal to.

   (a) 2V2r (b) 2r

   (c) $\frac{V3}{4}r$ (d) $\frac{4}{V3}r$

2. The empty space in hap arrangement is.

   (a) 34% (b) 47.6%

   (c) 32% (d) 26%

3. The appearance of colour in solid alkali metal halide is generally due to.

(a) Schottky defect (b) Frenkal defect

(c) F-centre (d) Inrterstitial position

4. The no. of moles in 180g of water is.

(a) 1 (b) 10

(c) 18 (d) 100

5. Molality of the solution is.

(a) no. of gm moles of solute dissolved per ml of sol^n

(b) no. of moles of solute dissolved per kg of solvent

(c) no. of moles of solute dissolved per litre of solution

(d) No. of gm of solute dissolved per kg of solvent

6. Isotonic solutions have.

(a) Same boiling point

(b) Same vapour pressure

(c) Same melting point

(d) Same osmotic pressure

7. Which of the following has highest ionisation enthalpy?

(a) P (b) N

(c) Ac (d) Sb

8. Pures form of iron is .....

9. Draw the structure of $HClO_4$?

10. Alkylhalides (Rx) react with Mg in dry ether to form .....

11. $Ca(OH)_2 + Cl_2 \rightarrow$ .....

12. The hybridisation in ICl_7 is.

(a) Sp^3d^2 (b) Cl^2sp^3

(c) Sp^3Cl (d) Sp^3

13. The process of converting hydrated alumina into anhydrous alumina is called .....

14. $C_6H_5OH \xrightarrow[H_2SO_4]{Conc.HNO_3}$ ..... It gives

(a) Benzene

(b) Catehol

(c) p-Nitrophenol

(d) 2, 4, 6 trinitrophenol

15. Alcohol fermentation is brought out by action of .....

16. $CH_3 - CH = CH_2 + HI \rightarrow$ .....

17. Which is not a reducing sugar?

(a) glucose (b) fructose

(c) Mannose (d) sucrose

18. DNA has deoxyribose, a base and third compound is.

(a) ribose (b) phosphoric acid

(c) adenine (d) thymine

19. Example of water insoluble vitamin .....

20. A copolymer example is .....

(a) PMMA (b) Bakelite

(c) Glyptal (d) Dacron

21. (a) H_2S is a gas while H_2O is liquid at room temperature. Explain?

(b) HI is stronger acid than HF. Why?

(c) Why is Helium used in diving apparatus?

22. (a) Give the geometry of XeF_4 and XeF_6?

(b) Why inter halogen compounds are more reactive than halogens?

(c) Why is yellow phosphorous kept under water?

23. Explain the froth floatation process of concentration of sulphide ore?

24. (a) What is race racemisation ?

(b) Explain Gattermann reaction?

25. (a) Define optical activity?

(b) Write short note on Hoffmann's ammonolysis?

26. (a) Define inversion?

(b) Why chloroform stored in dark bottles?

Or

(a) Why is thionly chloride method preferred for preparing alkyl chlorides from alcohols?

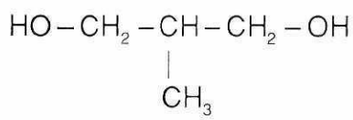
(b) Explain Resolution?

27. (a) Explain Reimer-Tiemann's reaction.

(b) Explain why propanol has higher boiling point than that of butane.

28. (a) Explain Williamson's synthesis.

(b) Write the IUPAC name of given compound.



29. (a) How will you distinguish primary, secondary and tertiary alcohols by lucas test?

(b) Give one example of secondary alochol

Or

(a) $R-OH + H-Cl(g) \xrightarrow[\Delta]{\text{anhy } ZnCl_2} R-Cl + H_2O$

(b) $R-OH + (RCO)_2O \rightarrow RCOOR' + RCOOH$

30. (a) Write short note on schottky defect?

(b) Define radius ratio. What is value of radius ratio for octahedral geometry?

31. (a) State Henry's law and mention some important applications.

(b) Define the term concentration of a solution?

Or

(a) Define azeotropic mixture?

(b) Molality is preferred over molarity. Why?

32. (a) What are essential amino acido and non-essential amino acids? Give examples.

(b) What is zwitter ions?

(c) What is gene?

33. (a) Differentiate between thermosetting and thermoplastic polymers.

(b) Write the preparation of Nylon–66 and its uses.