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MARKING SCHEME
PRACTICE PAPER (2021-22)
CLASS : XII
SUBJECT: CHEMISTRY (043)

Time Allowed : 90 Min. **Maximum Marks : 40**

समय : 90 मिनट **अधिकतम अंक - 40**

1. (a) AgBr

2. (a) Covalent solid

3. (d) $Na_2SO_4 \rightarrow 2Na^+ + SO_4^{2-}$

   Concentration = 0.3M

   $Ca(NO_3)_2 \rightarrow Ca^{2+} + 2NO_3^-$

   Concentration = 0.3M

   Osmotic pressure α number of particles

4. (a)

5. (a)

6. (d) PCC

7. (c)

8. (c) A = CH_3 MgCl, B = CH_4

9. (a) $H_2O > H_2Te > H_2Se > H_2S$

10. (a) XeF_4, XeF_2

11. (c) The number of tetrahedral voids in CCP structuer is 8.

12. (b) $a \neq b \neq c$, $\alpha \neq \beta \neq \gamma \neq 90°$

13. (a) 6.022×10^{18}

14. (c)

15. (d) General formula for carbohydrates is $C_x(H_2O)_y$

16. (d) Alkyl halide which will undergo S_N^1 reaction most readily $(CH3)_3C–I$.

17. (a) PQ

18. (a) The FCC has coordination number of 12 and contains 4 atoms per unit cell as $8\times\frac{1}{8}+6\times\frac{1}{2}=4$.

19. (a) 0.3RT

20. (c)

21. (a) $CH_3 – Cl + AgF \rightarrow CH_3–F+ AgCl$

22. (a)

23. (b) Primary structure

24. (d)

25. (b)

26. (c) Let $M^{3+} = x$

$M^{2+} = 98 – x$

$x (+3) + (98–x) (+2) = 100 \times 2$

$3x + 196 – 2x = 200$

$x = 4$

$\%\ \text{of}\ M^{3+} = \frac{4}{98}\times 100 = 4.08\%$

27. (c) $5 \text{ X } 10^{24}$

28. (a) $n=\frac{m}{M}=\frac{N}{10} \quad N = n\times No$

$\frac{1}{58.5}\times 6.022\times 10^{23}\ \text{molecules}$

Here 4 molecules of NaCl in unit cell.

$$\text{Number of unit cell} = \frac{6.022\times10^{23}}{58.5\times4} = 2.57\times10^{21} \text{ unit cells}$$

29. (d) $m = \frac{2.5\times10^{3}}{60\times75} \Rightarrow m = 0.556 \text{mol kg}^{-1}$

30. (a) $\Delta T_f = \text{Kg.m}$

$$= \frac{5.12\times1000\times1}{51.2\times250} = \frac{100}{250} = 0.4\text{k}$$

31. (b)

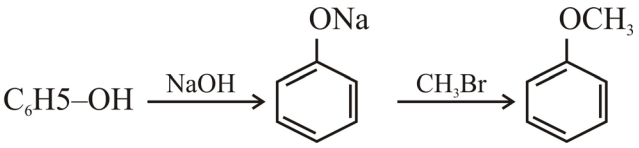
32. (b)

33. (b) ClF

34. (d) It is because in solution ClO_4^- much stable as dispersal of charge on oxygen.

35. (a) Cl^- and ClO_3^-

36. (b)

37. (c) 

38. (b)

39. (d) Glycine

40. (a) Gluconic acid

41. (b) Diphenyl

42. (c) $a = 2\sqrt{2}\ r = 2\times1.414\times0.144 = 0.407\text{nm}$

43. (c) Impurity defect

44. (b) Pressure of gas is not too high and temperature is not too low.

45. (a)

46. (a)

47. (d)

48. (d)

49. (c)

50. (b) 24.16×10^{23}

51. (a) $CH_3–OH$, $(CH_3)_3C–I$

52. (c)

53. (c)

54. (b)

55. (a)