

Tips, Tricks, General Knowledge, Current Affairs, Latest Sample, Previous Year, Practice Papers with solutions.

CBSE 12th Chemistry 2007 Unsolved Paper Outside Delhi

Buy Solution: http://www.4ono.com/cbse-12th-chemistry-solved-previous-year-papers/

CBSE 12th Chemistry 2007 Unsolved Paper Outside Delhi

TIME - 3HR. | QUESTIONS - 30

THE MARKS ARE MENTIONED ON EACH QUESTION

SECTION - A

Q.1. What are the products of hydrolysis of sucrose? I mark

Q. 2. Out of
$$CH_3-CH$$
 — CH_2-Cl and CH_3-CH_2-CH — CH , which is more reactive CH_3 CH_3

towards $S_N 1$ Reaction and why? 1 mark

- Q.3. What is the formula of a compound in which the element Y form ccp lattice and atom of X occupy 1/3rd of tetrahedral voids? *I mark*
- Q.4. Give the IUPAC name of the following compound: $1\ mark$

$$H_2C = CH - CH - CH_2 - CH_2 - CH_3$$

$$|$$

$$OH$$

- Q.5. Express the relation between conductivity and molar conductivity of a solution held in a cell. I mark
- Q.6. What are three types of RNA molecules which perform different functions? 1 mark
- Q. 7. What are the products of hydrolysis of sucrose? 1 mark
- Q.8. (i) Gas (A) is more soluble in water than Gas (B) at the same temperature. Which one of the two gases will have the higher value of KH (Henry's constant) and why?
 - (ii) In non-ideal solution, what type of deviation shows the formation of maximum boiling azeotropes.

SECTION - B

- Q. 9. When a co-ordination compound $CrCl_3$. $6H_2O$ is mixed with $AgNo_3$, 2 moles of AgCl are precipitated per mole of the compound. Write. 2 marks
 - (i) Structural formula of the complex.
 - (ii) IUPAC name of the complex.
- Q.10. A solution of $CuSo_4$ is electrolyzed for 10 minutes with a current of 1.5 amperes. What is the mass of copper deposited at the cathode? 2 mark

- Q.11. Distinguish between 'rate expression' and 'rate constant' of a reaction. 2 mark
- Q.12. Write the dispersed phase and dispersion medium of the following colloidal system: 2 mark
 - (i) Smoke
 - (ii) Milk

OR

What are lyophobic and lyophobic colloids? Which of these sols can be easily coagulated on the addition of small amounts of electrolytes?

- Q. 13. (a) Name the method used for removing gangue for sulphide ores.
 - (b) How is wrought iron different from steel. 2 marks
- Q. 14. Give reasons for the following: 2 marks
 - (i) Ethyl iodide undergoes S_N 2 reaction faster than ethyl bromide.
 - (ii) (\pm) 2-Butanol is optically inactive.
 - (iii) C-X bond length in halobenzene is smaller than C-X bond length in \mathcal{CH}_3-X .
- Q. 15. Account for the following: 2 marks
 - (i) Schottky defects lower the density of related solids.
 - (ii) Conductivity of silicon increases on doping it with phosphorus.
- Q.16. Define the following terms: 2 marks
 - (i) Lyophilic colloid
 - (ii) Zeta potential
 - (iii) Associated colloids
- Q. 17. Explain glucose. What is the role of glucose (cane sugar) from Sucrose? 2 marks
- Q.18. Express the relation among the cell constant, the resistance of the solution in the cell the conductivity of the solution. How in the conductivity of a solution related to its

molar conductivity? 2 marks

SECTION - C

- Q.19. What are emulsions? What are there different types? Give one example of each type. 3 marks
- Q. 20. (I) What is the role of t-butyl peroxide in the polymerization of ethene?
 - (ii) Identify the monomers in the following polymer:

$$NH - (CH_2)_6 - NH - CO - (CH_2)_4 - CO_n$$

(iii) Arrange the following polymers in the increasing order of their intermolecular forces: Polystyrene, Terylene, Buna-S. 3 marks

- Q. 21. Give reasons:
 - (a) n-Butylbromide has higher boiling point than t-butyl bromide.
 - (b) Racemic mixture is optically inactive.
 - (c) The presence of nitro group $(-NO_2)$ at o/p positions increases increases the reactivity of haloarenes towards nucleophilic substitution reactions. 3 marks
- Q.22. Complete the following chemical equation: 3 marks
 - (i) $Na_2CrO_4 + H_2SO_4 \rightarrow$
 - (ii) $MnO_2 + KOH + O_2 \rightarrow$
 - (iii) $HgCl_2 + SnCl_2 \rightarrow$
- Q.23. Write the names and structures of the monomers of the following polymers: 3 marks
 - (i) Buna- S
 - (ii) Neoprene
 - (iii) Nylon-6, 6
- Q. 24. Complete the following reactions: 3 marks

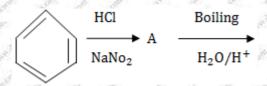
(i)
$$CH_3$$
 CH_2 NH_2 + $CHCl_3$ +alc. KOH \rightarrow

(II)

$$C_6H_5N_2^+Cl^-$$

$$(Room temp.)$$

(III)



- Q. 25. What are lyophilic and lyophobic sols? Give one example of each type. Which one of these two types of sols is easily coagulated and why? 3 marks
- Q. 26. Account for the following observations: 3 marks
 - (i) pK_h for aniline is more than that for methylamine.
 - (ii) Methylamine solution in water reacts with ferric chloride solution to give a precipitate of ferric hydroxide.
 - (iii) Aniline does not undergo Friedel-Crafts reaction.
- Q.27. Why is europium (II) more stable than cerium (II). 3 marks

SECTION - D

- Q.28. (a) Define the following terms: 5 marks
 - (i) Molarity,
 - (ii) Molal elevation constant (K_b)
 - (b) A solution containing 15 g urea (molar mass = 60 g mol^{-1}) per lit-re of solution in

water has the same osmotic pressure (isotonic) as a solution of glucose (molar mass = 180 g mol^{-1}) in water. Calculate the mass of glucose present in one litre of its solution.

Or

- (a) What type of deviation is shown by a mixture of ethanol and acetone? Give reason.
- (b) A solution of glucose (molar mass = $180 \text{ g } mol^{-1}$) in water is labelled as 10% (by mass). What would be the molality and molarity of the solution? (Density of solution = $1.2mL^{-1}$)
- Q.29. (a) How will you bring about the following conversions: 5 marks
 - (i) Ethanol to3-hydrixybutanal
 - (ii) Benzaldehyde to Benzophenone
- (b) An organic compound a has the molecular formula $C_8H_{16}O_2$. It gets hydrolyzed with dilute sulphuric acid and gives a carboxylic acid B and an alcohol C. Oxidation of C with chromic acid also produced B. C on dehydration reaction gives but-1-ene. Write equations for the reactions involved.
- Q. 30. (a) How will you convert the following: 5 marks
 - (i) Propanone to Propan-2-ol
 - (ii) Ethanal to 2-hydroxy propanoic acid
 - (iii) Toluene to benzoic acid
 - (b) Give simple chemical test to distinguish between:
 - (i) Pentan-2-one and Pentan-3-one
 - (ii) Ethanal and Propanal

Or

a. Write the products of the following reactions:

(i)
$$CH_3 - C - CH_3 \xrightarrow{Zn - Hg} conc. HCl$$

(ii)
$$CH_3 - C - CH_3 + H_2$$

$$Pb - BaSO_4$$

$$||$$

$$O$$

