CHEMISTRY

BOOKS - SHARAM PUBLICATION

SET 15

Exercise

1. The electron gain ethalpy of F, Cl and Br are in the order.

A. $F > Cl > Br$

B. $Cl > F > Br$

C. $Br > F > Cl$

D. $Cl > Br > F$

Answer:

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2. The half - life period of a first order reaction

is $69.3s$.What is the rate constant.

A. $0.001 \, \text{sec}^{-1}$

B. $0.11 \, \text{sec}^{-1}$

C. $1 \, \text{sec}^{-1}$

D. $0.1 \, \text{sec}^{-1}$

Answer:

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3. Heating pyrites to remove sulphur is called
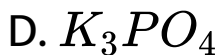
A. Froth Floatation
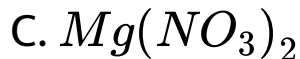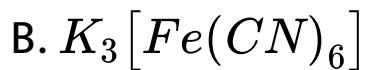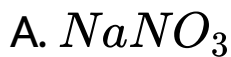
B. Calcination

C. Liquation

D. Roasting

Answer:

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4. Which of the following electrolyte is most effective in coagulation of a negatively charged colloidal solution?

A. $NaNO_3$

B. $K_3\left[Fe(CN)_6\right]$

C. $Mg(NO_3)_2$

D. K_3PO_4

Answer:

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5. Conductivity of an electrolytic solution

depends on

A. nature of electrolyte

B. concentration of an electrolyte

C. distance between electrodes

D. Both (i) and (ii)

Answer:

6. The name of reaction in which an acid chloride reacts with H_2 in presence of $Pd/BaSO_4$ and xylene is
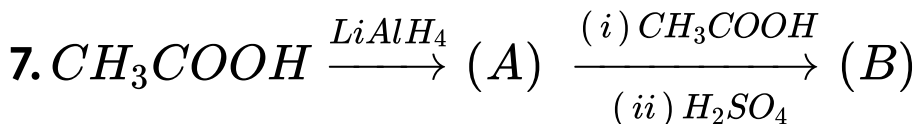
A. Aldol condensation

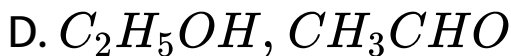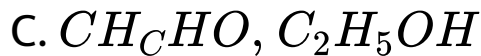B. Cannizaro's reaction

C. Etard's reaction

D. Rosenmund's reduction

Answer:

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7. $CH_3COOH \xrightarrow{LiAlH_4} (A) \xrightarrow[(ii)\,H_2SO_4]{(i)\,CH_3COOH} (B)$

in this above reaction A and B respectively are:

A. $CH_3COOC_2H_5, C_2H_5OH$

B. $CH_3CH_2OH, CH_3COOC_2H_5$

C. CH_CHO, C_2H_5OH

D. C_2H_5OH, CH_3CHO
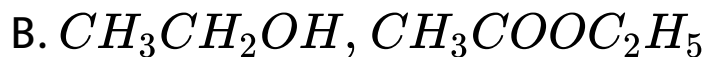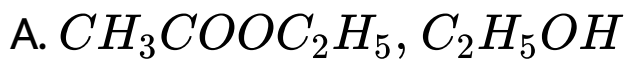
Answer:

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8. What happens to the boiling point of the solution when a non- volatile electrolyte is added to pure water?

9. Write the allotropic form of phosphorus.

10. Write the name of the two antacids.

11. What are the monomors of bakelite?

12. What happens when magnesium nitride is boiled with water ?

13. Which of the following ions will have highest paramagnetic character?

Cr^{3+}, Zn^{2+}, Cu^{2+} and Fe^{2+}

14. What is the electronic configuration of first row transition elements?

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15. What do you mean by unit cell?

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16. Calculate the boiling points of a solution prepared by dissolving 15g NaCl to 250g of water. (K_b of water = $0.512 K kg mol^{-1}$, molar mass of NaCl = 58.5) (Hints: $\triangle T_b = iK_b m$)

17. Calculate the electrode potential of a copper wire dipped in 0.1M $CuSO_4$ solution at 298 K. The standrd electrode potential of copper is +0.34 volt.

18. What are ligands? Give an example of a bidentate and hexadentate ligand.

19. What happens when SO_2 gas is passed through acidified $KMnO_4$ solution ?

20. How can you prepare Cl_2 from brine?

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21. What do you mean by addition polymerization? Given example.

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22. Why are synthetic detergents superior to Soaps?

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23. How will you distinguish between acetaldehyde and acetone?

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24. Explain what are ionic and covalent solids.Give one example of each.

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25. Discuss the structure of $[Co(NH_3)_6]^{3+}$ on the basic of VBT. It is inner or outer orbital complex?

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26. What are different types of emulsions? How can they be stabilized. Give examples.

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27. What is Hell-Volhard-zelinsky reaction? Give an example.

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28. What is iodoform test? Which type of compounds exhibit this test?

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29. What is the action H_2SO_4 on carbon and sugar?

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30. Discuss electrolytic refining of copper.

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31. Give main features of crystal field theory of coordination compounds in octahedral crystal

field.

32. What does S_N2 reaction mean? Write the mechanism of the reaction with an example.

33. What is the reaction of ammonia with chlorine?

34. Define specific conductance and molar conductance. Give their unit. What is the relation between them?

35. 0.05 M NaOH solution offers a resistance of 32 ohms in a conductivity cell at 298K. If the cell constant of the cell is $0.376cm^{-1}$,

Calculate the molar conductance of NaOH solution.

36. Write the differences between true solution , colloidal solution and suspension.

37. Write notes on

Tyndal effect

38. Discuss Werner's theory of co-ordination compounds.

39. The complex ion $\left[Cu(H_2O)_6\right]^{2+}$ has one unpaired elecrtron. According to valence bond theory prove it is octahedral

40. The complex ion $\left[Cu(H_2O)_6\right]^{2+}$ has one unpaired elecrtron. According to valence bond theory show it is an outer orbital complex .

41. The complex ion $\left[Cu(H_2O)_6\right]^{2+}$ has one unpaired electron. According to valence bond theory which of the following statements are true?

The hybridisation is d^2sp^3.

42. The complex ion $\left[Cu(H_2O)_6\right]^{2+}$ has one unpaired electron. According to valence bond theory which of the following statements are true?

The complex is hexadenate ligand.

43. How is acetaldehyde prepared from acetylchloride?

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44. How does acetal dehyde react with

CH_3MgBr

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45. How does acetaldehyde react with Tollen's reagent

46. The molecular formula of a compound is C_3H_9N. Write the structural formula and give the IUPAC names of all possible amines represented by this formula.

47. What are polymers ? Give one example of each of addition and condensation polymer ?

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48. Write the name of two antiseptics.

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