CHEMISTRY

BOOKS - MODERN PUBLICATION

SAMPLE PAPER 2016

Exercise

1. Choose and write the correct answer of the following:

Which one is the ore of copper?

A. Bauxite

B. Dolomite

C. Haematite

D. Chalcopyrite

Answer:

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2. Which one of the following compound is a protein ?

A. Penicillin

B. Orlon

C. Keratin

D. Savlon

Answer:

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3. Which of the following reagents produces pure acid-chloride from monocarboxylic acid ?

A. PCl_3

B. PCl_5

C. SO_2Cl_2

D. $SOCl_2$

Answer:

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4. In Hofmann-bromamide reaction an amide is converted to -

A. Primary amine

B. Secondary amine

C. Tertiary amine

D. Aldehyde

Answer:

5. Which one of the following reaction involves both aryl and alkyl halide ?

A. Wurtz reaction

B. Wurtz- Fitting reaction

C. Sandmeyer reaction

D. Friedel- Craft reaction

Answer:

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6. Oxygen is not evolved when ozone reacts with -

A. KI

B. SO_2

C. $SnCl_2$

D. Pbs

Answer:

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7. A detergent is

A. Drug

B. Catalyst

C. Soap

D. Surface active agent

Answer:

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8. Nitration of nitrobenzene yields -

A. o-dinitrobenzene

B. m-dinitrobenzene

C. p-dinitrobenzene

D. 1,2,3 - trinitrobenzene

Answer:

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9. The disease nightblindness is caused due to the deficiency of -

A. Vitamin -A

B. Vitamin-B_(1)

C. Vitamin-B_(2)

D. Vitamin-C

Answer:

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10. Which of the following is a monosaccharide ?

A. Lactose

B. Maltose

C. Fructose

D. Cellulose

Answer:

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11. What is Oleum ? Write its formula.

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12. Write the unit of cell constant.

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13. Name the compound precipitated when excess of bromine water is added to aniline.

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14. What are the Monomers used for preparing Buna-S ?

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15. What is the shape of XeF_2 molecule ?

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16. The unit of rate constant for a zero order reaction is_____

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17. Drug used in bringing down the body temperature in high fever is called_____

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18. Toluene on oxidation with CrO_2Cl_2 gives_____ and the reaction is called_____

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19. $Ni(CO)_4$ is an example of _____ and _____ bonded organo metallics.

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20. Isotopes having positive packing fraction indicates _____ of the nucleus.

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21. Suggest a chemical test to distinguish between pentan-2-one and pentan-3-one. Give equation.

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22. How is toluene converted to benzene ?

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23. How is ferric chloride prepared ? Explain why it is acidic.

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24. Why hydrogen sulphide cannot be dried by conc. H_2SO_4?

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25. What is Cannizzaro's reaction? Give equation.

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26. Why HF cannot be stored in glass bottle? Explain with equation.

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27. State the Law of mass action and explain any two significance of equilibrium constant.

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28. How does common ion effect help in the preparation of pure NaCl from an impure variety ?

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29. The aqueous solution of which amongst the following is the most acidic and why? HF, HCl, HBr, HI

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30. Write the structural formulae of the three derivatives of monocarboxylic acid. Identify the functional group present in them.

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31. "Direct iodination of benzene is difficult." Explain. Suggest an alternative route for the synthesis of iodo benzene.

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32. What is a Buffer solution? Derive Hendersen's equation for calculation of the pH Of a basic buffer.

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33. The half - life of a radioactive element is 69.3 days.Find out the time taken for a given sample to the element to be reduced to $\frac{1}{10^{th}}$ of its initial activity.

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34. Equivalent conductance at infinite dilution of NH_4CI, NaOH and NaCl are 129.8, 217.4 and 108.45 mho cm^2 gm equivalent-' respectively.Calculate the equivalent conductance of HN_4OH at infinite dilution.

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35. What is Diazo reaction ? Write the structure of the product of this reaction. Using this reaction how the following compounds are prepared? (i)Benzene (ii) Fluorobenzene

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36. How is acetaldehyde prepared from acetylchloride?

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37. How does acetaldehyde react with Tollen's reagent

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38. Arrange the order of reactivity of the following compounds towards nucleophiles: $CH_3CHO, (CH_3)_2CO, HCH0$

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39. Describe the laboratory method of preparation of sulphur dioxide. How does it react with acidified $KMnO_4$ solution and chlorine water ?

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40. Define transition elements. Discuss their following characteristic properties : Magnetic property

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41. Define specific, equivalent and molar conductance. Write their units. Derive the relation between specific conductance and molar conductance. What is the effect of dilution on specific and equivalent conductance?

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42. Write notes on :

Solubility product and its application to analysis of Group -II and Group - III (B) basic radicals.

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43. Write notes on: Hess's law of constant heat of summation.

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