



CHEMISTRY

BOOKS - MODERN PUBLICATION

SAMPLE PAPER 2016



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

$\mathsf{C.}\,SO_2Cl_2$

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*

$\mathsf{B.}\,SO_2$

C. $SnCl_2$

 $\mathsf{D}.\,Pbs$

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:



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:



10. Which of the following is a monosaccharide

?

A. Lactose

B. Maltose

C. Fructose

D. Cellulose

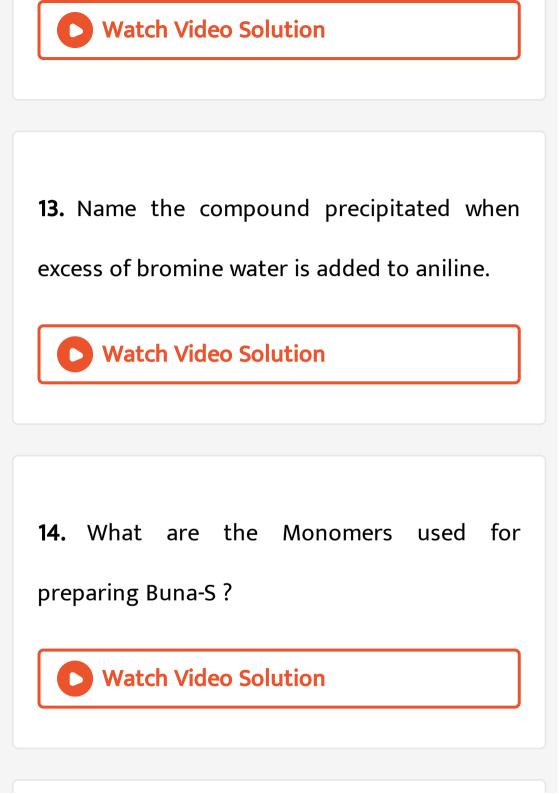
Answer:

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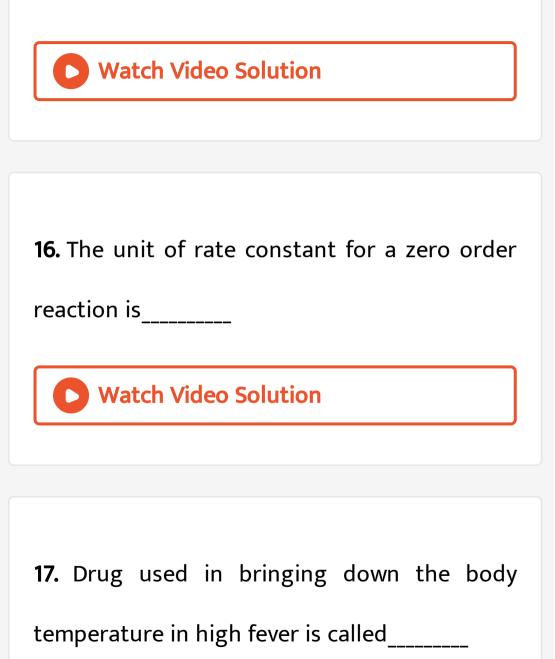
11. What is Oleum ? Write its formula.



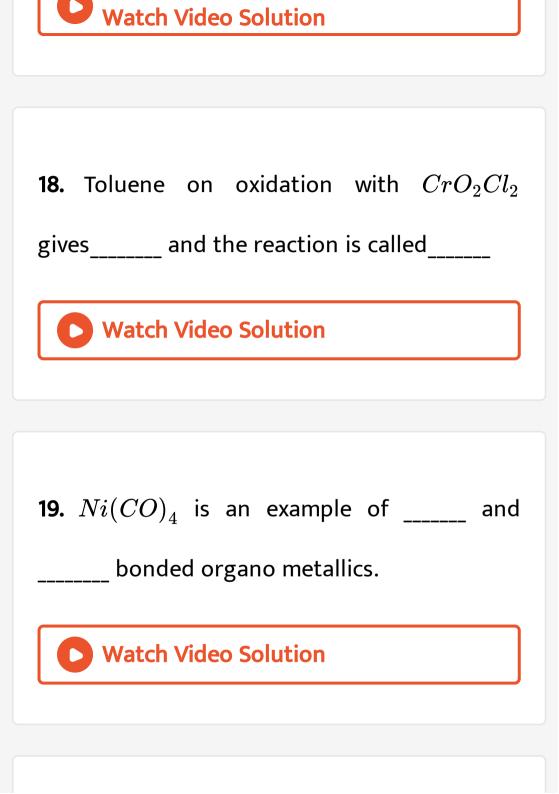
12. Write the unit of cell constant.



15. What is the shape of XeF_2 molecule ?







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

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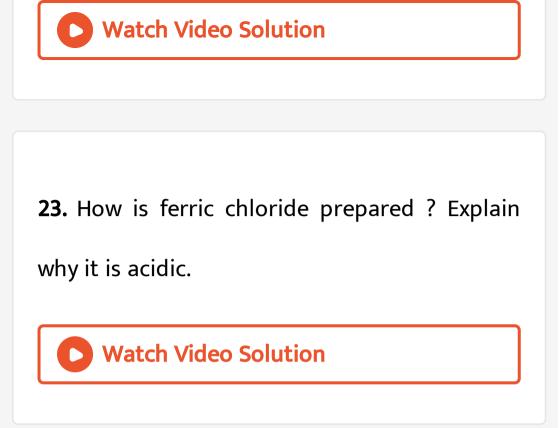
21. Suggest a chemical test to distinguish

between pentan-2-one and pentan-3-one. Give

equation.

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22. How is toluene converted to benzene ?



24. Why hydrogen sulphide cannot be dried by

conc. H_2SO_4 ?

25. What is Cannizzaro's reaction? Give equation.Watch Video Solution

26. Why HF cannot be stored in glass bottle?

Explain with equation.

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 ?

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



30. Write the structural formulae of the three

derivatives of monocarboxylic acid. Identify the

functional group present in them.



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.

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.



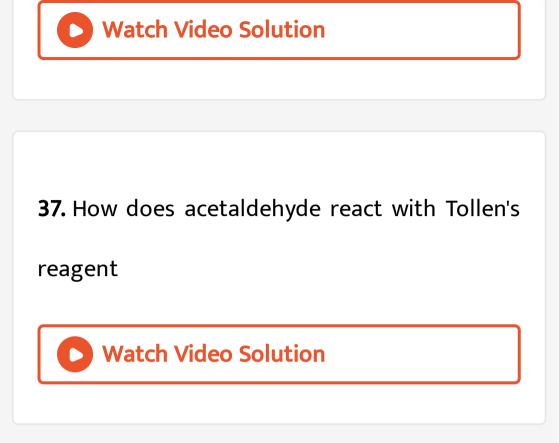
34. Equivalent conductance at infinite dilution of NH_4CI , NaOH and NaCl are 129.8, 217.4 and 108.45 mho cm^2 gm equivalent-' respectively.Calculate the equivalent conductance of HN_4OH at infinite dilution.



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?



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



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

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?



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.