



# CHEMISTRY

## BOOKS - UNITED BOOK HOUSE

### SET-10

#### Exercise

1. Percentage of empty space in body centred cubic lattice.

A. 0.68

B. 0.32

C. 0.74

D. 0.26

**Answer:**



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2. The potential of hydrogen electrode at pH = 10 is:

A. 0.59V

B. 0.00 V

C. 0.59 volt

D. (-)0.59 V

**Answer:**



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**3.** The extent of adsorption of a gas on a solid depends upon.

A. temperature

B. pressure

C. nature of the gas

D. all of the factors

**Answer:**



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**4. Deacon's process produces:**

A.  $Cl_2$

B.  $N_2$

C.  $P_4$

D. S

**Answer:**



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5. Which oxidation state is common for all lanthanoid.

A. (+)5

B. (+)4

C. (+)3

D. (+)2

**Answer:**



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6. Alkaline  $KMnO_4$  oxidises  $I^-$  to:

A.  $IO^-$

B.  $I_2$



**Answer:**



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7. Oxidation state of Fe in

$[Fe(H_2O)_5NO]SO_4$  is:

A. (+)2

B. (+)5

C. (+)6

D. (+)1

**Answer:**



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**8.** Swart's reaction is done to prepare.

A.  $CH_3F$

B.  $CH_3Cl$

C.  $CH_3Br$



D.  $CH_3I$

**Answer:**



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9. In Reimer Tiemann the reagent used.

A. Alkaline  $KMnO_4$

B.  $CHCl_3$ ,  $AqNaOH$

C.  $CH_3COONa$ ,  $CH_3COOH$

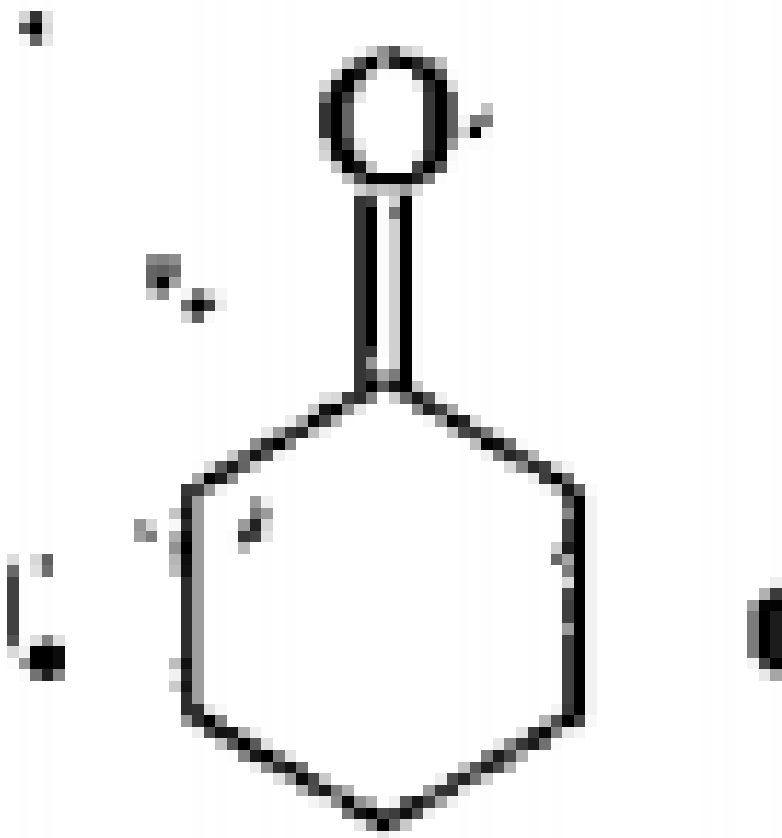
D.  $CH_3COCl$ ,  $AlCH_3$

**Answer:**



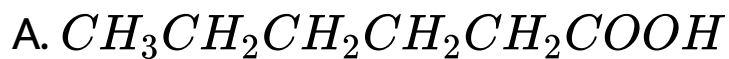
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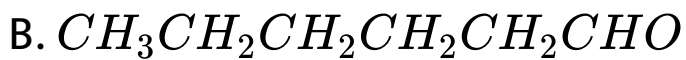
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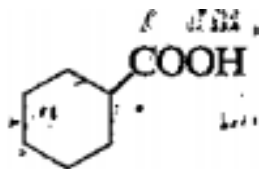
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oxidation with trifluoroacetic acid yields.

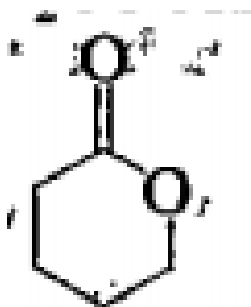




C.



D.



**Answer:**



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11. Functional isomers of nitroalkanes is:

- A. Alkyl amine
- B. Alkyl (Cyanide)
- C. Alkyl nitriles
- D. Alkyl nitrites

**Answer:**



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12. Draw the correct structure of pyrimidine.



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13. Teflon is.

A. Poly tetrafluoroethylene

B. Polyacryl nitrile

C. Polyvinyl chloride

D. neoprene

**Answer:**



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**14.** Norepinephrine is a/an.

- A. antibiotic
- B. analgesic
- C. anti depressant
- D. antihistamine

**Answer:**



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**15.** Name one salt which is used in salt bridge.



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**16.** Write Nernst equation for electromotive force for Galvanic cell.



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**17.** What is the use of alum for purification of water?



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**18.** Calculate the spin only magnetic moment of  $Fe^{2+}$  ion.



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**19.** State one use of Tantalum.



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20. Name one antibiotic drug.



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21. Calculate the depression of freezing point of water when 1.8 gm glucose dissolves in 250 ml water.



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**22.** Calculate the osmotic pressure of a soln in which 15 gm urea is dissolved in 250 ml water at  $25^{\circ}C$  temperature.



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**23.** What is physical adsorption? What is change of entropy in the process adsorption.



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24. How do size of particles of adsorbent, pressure of gas and prevailing temperature influence the extent of adsorption of gas on a solid



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25. Why the melting point of bismuth is less than that of As?



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26. Why the bond dissociation enthalpy of  $F_2$  is less than that of  $Cl_2$ .



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27. What is meridional isomer? Give example.



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28. What is co-polymer? Give example.



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**29.** Calculate the edge length of body centred cubic lattice having density  $9.4 \text{ g. cm}^{-3}$  and atomic weight 56.



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**30.** What is imperfect crystal? Give one example of metal excess lattice.



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**31.** Show that for the first order reaction half life is independent of initial concentration of reactant.



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**32.** What is positive deviation of Raoult's law?  
What is the reason behind it?



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**33.** Calculate the amount of  $Cu$  will be realised at electrode when 1.5 ampere current is passed for one hour through  $CuSO_4$  solution?



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**34.** What is leaching? How alumina is separated from bauxite by this process?



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**35.** Write two difference between calcination and roasting? What is thermit welding?



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**36.** Why mercurous ion exist in  $Hg_2^{2+}$  form?

Why  $Fe^{3+}$  is more stable than  $Fe^{2+}$  ?



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**37.** Why Scandium can't form colour compound? Write the general electronic configuration for 'f' block element.



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**38.** How would you synthesis DDT? Mention one use of it.



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**39.** Why vinyl halide shows reluctance to nucleophilic substitution reaction? What product will result when alkyl halide is treated with AgCN solution.



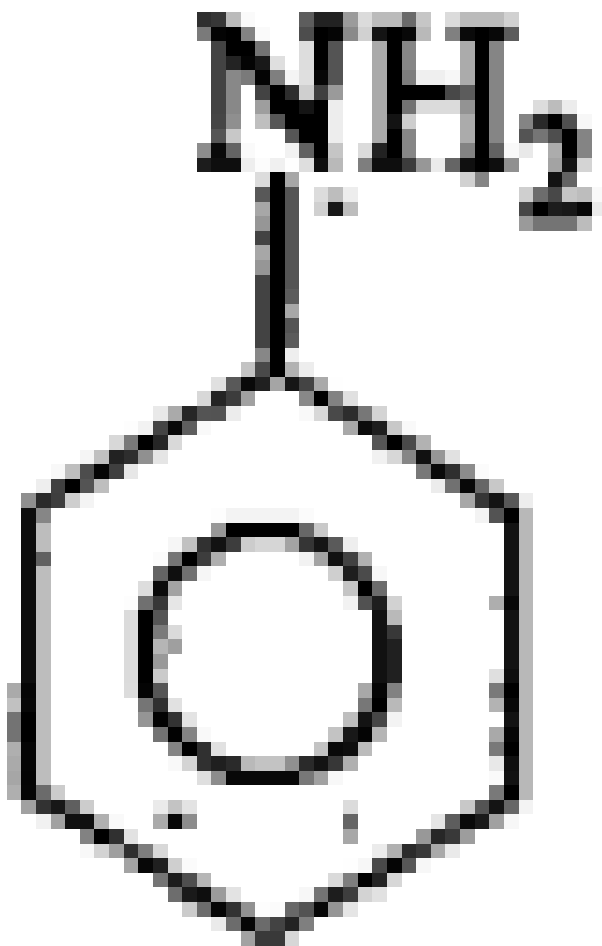
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**40.** Draw the correct structure of *Phenol* and Aniline



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41. Compare the basicity of  $CH_3NH_2$  &



what

happens when methyl amine is passed through cuprous chloride solution?



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**42.** What is mutarotation? What is mutarotation? What type of tautomerism is involved in mutarotation?



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**43.** Show that for the Zero order reaction half line is not independent of initial concentration of reactant.



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44. What is the unit of rate constant of  $n^{th}$  order reaction?



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45. Explain why the catenation property of sulphur is higher than that of oxygen?



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46.  $F_2$  does not show any positive oxidation state. What is the basicity of  $H_3PO_2$ ?



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47. Give example of two food preservative.



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48. Name the carboxylic acid which has reducing property, What happens when it is

heated with tollens reagent? Give equation.

Convert  $CH_3COOH \rightarrow CH_3NH_2$



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