



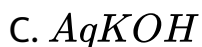
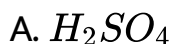
## CHEMISTRY

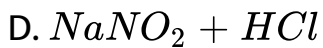
### BOOKS - SHARAM PUBLICATION

### 2014 QUESTION PAPER

#### Exercise

1. Acetamide is converted to methylamine when it is heated with—





**Answer:**



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2. Which of the following is not addition polymer ?

A. Polythelene

B. Teflon

C. Bakelite

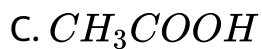
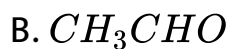
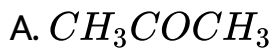
D. PVC

**Answer:**



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3. Calcium acetate on heating gives -



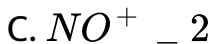
**Answer:**



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4. The electrophile in the nitration of benzene is



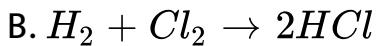
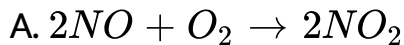


**Answer:**

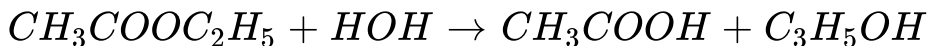


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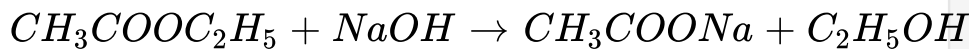
5. Which of the following reaction is a zero order reaction?



C.



D.



**Answer:**



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6. Which one of the following is the ore of copper ?

A. Bauxite

B. Dolomite

C. Chalcopyrite

D. Haematite

**Answer:**

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7. The coordination number of cobalt in  $[Co(NH_3)_3Cl_3]$  is

A. 3

B. 2

C. 4

D. 6

**Answer:**

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8. Considering entropy as parameter in the following chemical reaction at  $298K$  :  $x(g) + y(g) = xy(l)$

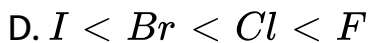
- A.  $\Delta S$  is negative
- B.  $\Delta S$  is positive
- C.  $\Delta S$  is zero
- D.  $\Delta S$  cannot be predicted

**Answer:**

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**9.** In the halogen family, the oxidising action increases in the order.

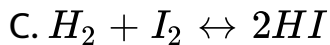
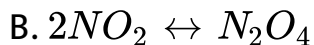
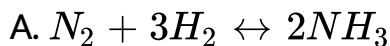
- A.  $F < Cl < Br < I$
- B.  $Cl < I < Br < F$
- C.  $I < F < Cl < Br$



Answer:

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10. In which of the following gaseous reactions  $K_P = K_C$  ?



Answer:

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11. What is the pOH of 0.001(M)  $NaOH$  solution ?

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12. Write the IUPAC name of  $K_4[Fe(CN)_6]$ .

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13. What is the unit of rate constant of the first order reaction?

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14. Which halogen shows only one oxidation number in its compounds ?

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15. Give the relationship between chemical equivalent and electrochemical equivalent of an element?

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16. Natural rubber is the polymer of—

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17. Complete the following reaction and name the products



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18. Fill in the blanks : Electrophilic substitution reaction in

phenol takes place at ..... position.

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19. Fill in the blanks :  ${}^6_{12}C + {}^2_4He \rightarrow {}^8_{14}O + \dots$

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20. The precipitate formed when an aldehyde react with Fehling solution is \_\_\_\_\_.

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21. Correctly match List - I with List - II :

List-I	List-II
A. Crocin	1. Polymer
B. Surf	2. Rhodenticide
C. Bakelite	3. Antipyretic
D. Zinc phosphide	4. Detergent
	5. Insecticide

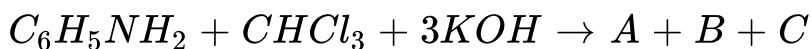
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22. What are antiseptics ? Give three names of antiseptics.



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23. Identify A, B,C and name the reaction.



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24. Explain - why methylamine is a stronger base than aniline ?



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25. How can convert benzene to benzoic acid ?



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26. What is the action of ozone on acidified ferrous sulphate? Give equation.

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27. How many  $\alpha$  and  $\beta$  particles are emitted during the transformation of  ${}_{90}^{228}\text{Th}$  to  ${}_{86}^{216}\text{Rn}$ ?

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28. Why hydrofluoric acid is the weakest of all the halogen acids ?

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29. What is galvanic cell? Give an example.

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30. Difference between double salt and complex salt.

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31. Why  $FeCl_3$  solution is acidic ?

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32. Define Bond energy.



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**33.** What are essential and nonessential amino acids ? Give two examples of essential amino acids.

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**34.** Which type of hybridisation takes place in xenon during formation of  $XeF_2$  ? What is its shape ?

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**35.** Why are most of the transition metal compounds are paramagnetic ?

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**36.** What is packing fraction ? How it is related to stability of nuclei ?

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**37.** Explain Friedel - Craft reaction with two examples.

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**38.** How benzenediazonium chloride is prepared from aniline ?

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**39.** Starting from benzenediazonium chloride how the following can be prepared ?

Chlorobenzene

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**40.** Starting from benzenediazonium chloride how the following can be prepared ?

p - hydroxyazobenzene

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**41.** Write with equation what happens when : a mixture of calcium acetate and calcium formate is heated.

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42. Write with equation what happens when : Phenyl magnesium bromide in ether is treated with carbon dioxide and the product is hydrolysed with dilute acid.

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43. Write with equation what happens when : Toluene is treated with chromylchloride in carbon tetrachloride and on subsequent treatment with water.

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44. Define and explain Hess 's law with an example.



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**45.** Define conductance, specific conductance and equivalent conductance.



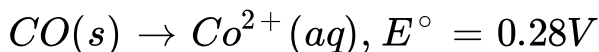
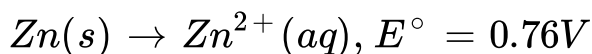
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**46.** Describe the construction and working of Daniell cell.

The following reaction occurs in a cell



Write the electrode reaction and find out the emf of the cell. Given



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47. Explain Group displacement law with suitable example.

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48. Give the principle of extraction of iron from one of its ore.

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49. Describe a method of preparation of ozone.

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**50.** Explain with equation how does ozone react with

Hydrogen peroxide



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**51.** Explain with equation how does ozone react with

Pottassium iodide.



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