



CHEMISTRY

BOOKS - SHARAM PUBLICATION

2012 QUESTION PAPER

Exercise

1. pH of 0.001(*M*) *NaOH* solution is

- A. 3
- B. 7
- C. 11
- D. 14

Answer:



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2. For an unstable nucleus

- A. n/p ratio is high
- B. Binding energy is low
- C. Packing fraction is +ve
- D. all of the above

Answer:



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

- A. Dolomite
- B. Malachite
- C. Bauxite

D. Hematite

Answer:



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4. Which of the following is an insecticide ?

A. Dettol

B. Aspirin

C. Aldrin

D. Zinc Phosphide

Answer:



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5. The solubility of CaF_2 in water is 's' moles per litre, its solubility product is

A. $3s$

B. $2s^2$

C. $4s^3$

D. $4s^2$

Answer:



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6. Which of the following compound will not react with ammoniacal $AgNO_3$ solution ?

A. Acetylene

B. Acetone

C. Acetaldehyde

D. Formic acid

Answer:



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7. In the upper layer of the atmosphere, ozone is formed by the:

- A. By combination of oxygen
- B. By high pressure on oxygen
- C. By action of electric discharge on oxygen
- D.

Answer:



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8. The unit of entropy are:

A. $JK^{-1}mo \leq^{-1}$

B. $KJ^{-1} mole^{-1}$

C. $JK^{-1}mo \leq$

D. $KJmol^{-1}$

Answer:

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9. Electrophilic substitution reaction in benzaldehyde takes place at

A. o- position

B. p- position

C. m- position

D. o and p position

Answer:

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10. Which of the following is the IUPAC name of $K_4[Fe(CN)_6]$?

- A. Potassium ferricyanide
- B. Potassium ferrocyanide
- C. Potassium hexacyanoferrate
- D. Potassium hexacyanoferrate

Answer:

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11. Fill in the blanks : The half life period of a radioactive substance is 69.3 years. The disintegration constant is

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12. Nylon 6,6 is prepared by the condensation of and

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13. The transition elements are paramagnetic due to the presence of

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14. Fill in the blanks : The name of electrophile used for the sulphonation of benzene is

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15. In the electrochemical cell, oxidation takes place at

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16. Which of the following attacks glass ?

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17. What is the value of change in entropy at equilibrium ?

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

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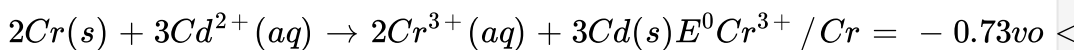
19. Write the name of two antibiotic drugs.

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20. Why is the solution containing sodium acetate and acetic acid called a buffer solution ?

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21. Represent the cell and calculate the Standard e.m.f. of the cell having following cell reaction:



and $E^0 Cd^{2+} / Cd = -0.40 \text{ volt}$

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

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23. What is the action of ozone with lead sulphide? Give equation.

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24. Discuss the principle of manufacture of sulphuric acid by contact process. Why is H_2S not dried over concentrated H_2SO_4 ?

How does concentrated H_2SO_4 react with (i) copper and (ii) sugar?

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25. What happens when $SnCl_2$ solution is added to $CuCl_2$ solution ?

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26. Sodium acetate solution is alkaline. Give reason.

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27. State Kohlrausch's law. Discuss with an example .

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28. How is benzene converted to toluene ?

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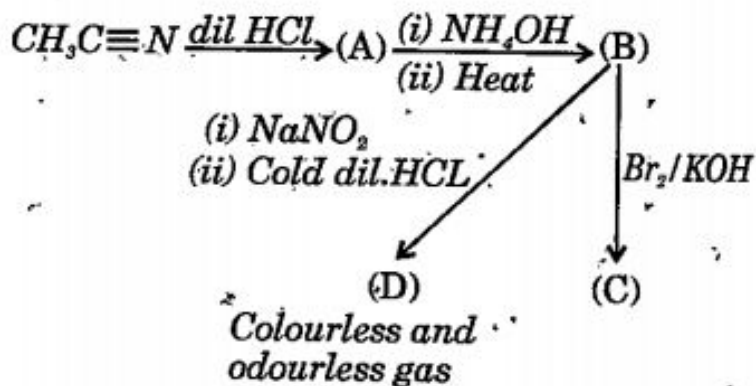
29. What is the action of benzaldehyde with HCN ?

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30. What happens when acetamide is treated with sodium and ethyl alcohol.

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31. Identify A, B, C and D.



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32. Why aniline is less basic than methyl amine?

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33. What are organometallic compounds? Give two examples.

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34. What happens when propionic acid is treated with thionyl chloride?

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35. What is Reimer-Tiemann reaction?

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36. State and explain Faraday's laws of electrolysis. When a current of 24A strength is passed through $AgNO_3$ solution for 10 min 16 grams of silver is deposited . Find out the electrochemical equivalent of silver.

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37. Write short notes on :

activation energy

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

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39. What is carbon dating ? Explain. In a sample of wood C-14 activity is 10% of the activity found in fresh wood. Calculate the age of wood sample. $\left(\frac{t_1}{2} \text{ for C-14 is 5760 years} \right)$

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40. Justify the position of noble gases in the periodic table .

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41. How is acetic acid prepared from



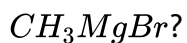
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42. How is acetic acid prepared from



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43. How is acetic acid prepared from



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44. Write one reaction to distinguish between formic acid and acetic acid.

Give equation.

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45. What happens when sodium benzoate is distilled with sodalime?



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46. How is benzene diazonium chloride prepared from aniline? How are the following compounds prepared from it?

(i) Benzene (ii) Phenol (iii) Iodobenzene (iv) Phenylcyanide.



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47. How is benzene diazonium chloride prepared from aniline? How are the following compounds prepared from it?

(i) Benzene (ii) Phenol (iii) Iodobenzene (iv) Phenylcyanide.



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48. How is benzene diazonium chloride prepared from aniline? How are the following compounds prepared from it?

(i) Benzene (ii) Phenol (iii) Iodobenzene (iv) Phenylcyanide.



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49. How is benzene diazonium chloride prepared from aniline? How are the following compounds prepared from it?

(i) Benzene (ii) Phenol (iii) Iodobenzene (iv) Phenylcyanide.



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