CHEMISTRY

BOOKS - MODERN PUBLICATION

SAMPLE PAPER 2012

Exercise

---

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

A. 3

B. 7

C. 11

D. 14

Answer:

Watch Video Solution

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:

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

A. Dolomite

B. Malachite

C. Bauxite

D. Hematite

Answer: A::C

 Watch Video Solution

4. Which of the following is an insecticide ?

A. Dettol

B. Aspirin

C. Aldrin

D. Zinc Phosphide

Answer: A::D

 Watch Video Solution

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:

▶ Watch Video Solution

6. Which of the following compound will nor react with ammoniacal $AgNO_3$ solution ?

A. Acetylene

B. Acetone

C. Acetaldehyde

D. Formic acid

Answer: A::C

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. By action of UV rays on oxygen

Answer:

8. The unit of entropy are:

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

B. $KJ^{-1}mo \leq^{-1}$

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

D. $KJmo \leq^{-1}$

Answer:

▶ Watch Video Solution

9. Electrophilic substitution reaction in benzaldehyde takes place at

A. o-position

B. p-position

C. m-position

D. o and p-position

Answer:

▶ Watch Video Solution

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

A. Potassium ferricyanide

B. Potassium ferrocyanide

C. Potassium hexocyanide (III)

D. Potassium hexacyanoferrate (II)

Answer: A::C

▶ Watch Video Solution

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

▶ Watch Video Solution

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

▶ **Watch Video Solution**

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

▶ **Watch Video Solution**

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

of benzene is ....

▶ **Watch Video Solution**

15. In the electrochemical cell, oxidation takes place at . . . .
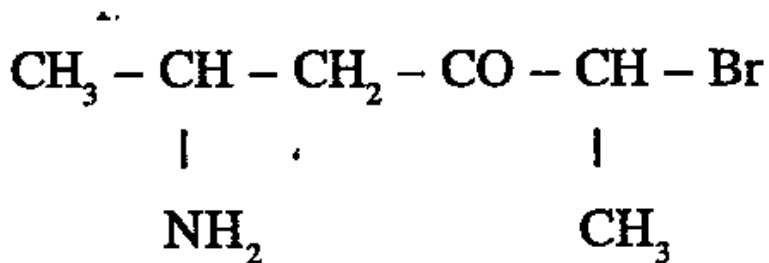
▶ **Watch Video Solution**

16. Which halogen acid does attack glass?

Watch Video Solution

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

Watch Video Solution

18. Write the IUPAC name of the following compund

$$CH_3 - CH - CH_2 - CO - CH - Br$$
$$\quad\quad\; | \quad\quad\quad\quad\quad\quad\; |$$
$$\quad\quad NH_2 \quad\quad\quad\quad\quad CH_3$$

Watch Video Solution

19. Give the relationship between chemical equivalent and electrochemical equivalent of an element?
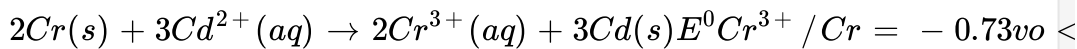
▶ Watch Video Solution

20. Write the name of two antibiotic drugs.

▶ Watch Video Solution

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

▶ Watch Video Solution

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

$$2Cr(s) + 3Cd^{2+}(aq) \rightarrow 2Cr^{3+}(aq) + 3Cd(s) E^0 Cr^{3+}/Cr = -0.73 vo <$$

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

> ▶ Watch Video Solution

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

> ▶ Watch Video Solution

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

> ▶ Watch Video Solution

25. H_2S cannot be dried by passing over conc. H_2SO_4 because:

> ▶ Watch Video Solution

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

27. Sodium acetate solution is alkaline. Give reason.

28. State KohIrausch's law.

29. How is benzene converted to toluene ?

30. What is the action of benzaldehyde with HCN ?

31. What happens when ethyl acetate is treated with sodium ethoxide and ethyl alcohol ? Give equation.

▶ **Watch Video Solution**

32. Why aniline is less basic than methyl amine?

▶ **Watch Video Solution**

33. What are organometallic compounds? Give two examples.

▶ **Watch Video Solution**

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

▶ **Watch Video Solution**

35. What is Riemer-Tiemann reaction? Give equation.

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.

37. Write short notes on :

activation energy

38. 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. $\left(\dfrac{t_1}{2} \right.$ for C-14 is 5760 years $)^{\backprime}$

> ▶ Watch Video Solution

39. Justify the position of boble gases in the periodic table .

> ▶ Watch Video Solution

40. Discuss one method of preparation and the structure of the following

compounds .

(a) XeF_2

(b) XeF_4

> ▶ Watch Video Solution

41. How is acetic acid prepared from (i) $CH_3CH_2OH(ii)CH_3COOC_2H_5$

and (iii) CH_3MgBr

> ▶ Watch Video Solution

42. Write one reaction to distinguish between formic acid and acetic acid. Give equation.

▶ **Watch Video Solution**

43. What happens when sodium benzoate is heated with soalime ?

▶ **Watch Video Solution**

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

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

▶ **Watch Video Solution**