doubtnut
India's Number 1 Education App

CHEMISTRY

BOOKS - NTA MOCK TESTS

NTA NEET SET 42

Chemistry

1. Which of the following cannot behave like a Lewis acid ?

A. CO_3^{2-}

B. Zn^{2+}

C. SO_3

D. $SiCl_4$

Answer: A

Watch Video Solution

2. Which of the following cannot give iodometric titrations?

A. Ag^+

B. Fe^{3+}

C. Pb^{2+}

D. Cu^{2+}

Answer: C

Watch Video Solution

3. Which of the following is known as gem - dibromide ?

A. $CH_3CH(Br)CH(Br)CH_3$

B. $CH_2(Br)CH_2CH_2$

C. CH_2BrCH_2Br

D. $CH_3CBr_2CH_3$

Answer: D

Watch Video Solution

4. Potassium is involved in

A. Water

B. Kerosene

C. Alcohol

D. Liquid ammonia

Answer: B

Watch Video Solution

5. Colloidal solution of which of the following cannot be prepared by Breding's arc method?

A. Pt

B. Au

C. Ag

D. Fe

Answer: D

Watch Video Solution

6. Which set of reagents are needed to synthesize the given unsymmetrical alkyne $CH_3 - C \equiv C - CH_2 - CH_3$?

A. Acetaldyde , 1 - bromopropane and conc.H_2SO_4

B. Ethyne , iodomethane , iodothane and sodamide

C. 1,2 - dichloroethane , 1 - propanol and alcoholic potassium hydroxide

D. Ethene , iodoethane , iodomethane and potassium hydroxide

Answer: B

Watch Video Solution

7. The relationship between $\left[Co(NH_3)_4Cl_2\right]NO_2$ and $\left[CO(NH_3)_4Cl.\ NO_2\right]Cl$ isomers is

A. Linkage

B. Geometrical

C. Ionization

D. Optical

Answer: C

Watch Video Solution

8. Which reagent used to test unsaturation of alkenes ?

A. conc . H_2SO_4

B. Solution of Br_2 in CCl_4

C. Ammonical Cu_2Cl_2

D. Ammonical $AgNO_3$

Answer: B

Watch Video Solution

9. Which compound does not from iodoform with alkali and iodine? .

A. Diethyl ketone

B. Acetone

C. Ethanol

D. Isopropyl alcohol

Answer: A

Watch Video Solution

10. An isostere is

A. ClO_4^- and OCN^-

B. NO_2^- and PO_4^{3-}

C. CO_2, N_2O, NO_3^-

D. NO_2^- and O_3

Answer: D

Watch Video Solution

11. The reaction of , water gas $(CO + H_2) + H_2$ at 673 K, 300 atmosphere in presence of the catalyst

Cr_3O_3 / ZnO is used for the manufacture of

A. CH_3OH

B. HCOOH

C. HCHO

D. CH_3COOH

Answer: A

Watch Video Solution

12. What is the general electronic configuration for second row transition series?

A. $[Ne]3d^{1-10}, 4s^2$

B. $[Ar]3d^{1-10}, 4s^{1-2}$

C. $[Kr]4d^{1-10}, 5s^{1-2}$

D. $[Xe]5d^{1-10}, 5s^{1-2}$

Answer: C

Watch Video Solution

13. RNH_2 reacts with $C_6H_5SO_2Cl$ in aqueous KOH to give a clear solution. On acidification a precepitate is obtained which is due to the formation of

A. $R-\overset{\overset{H}{|}}{\underset{\underset{H}{|}}{N}}{}^{+}-SO_2C_6H_5OH^-$

B. $C_6H_5SO_2NH_2$

C. $R - N^- SO_2C_6H_5K^+$

D. $R - NHSO_2C_6H_5$

Answer: D

Watch Video Solution

14. Which species in the given below has a coordinated bond ?

A. CH_4

B. SO_3^{2-}

C. NH_3

D. CO_2

Answer: B

Watch Video Solution

15. Cinnamic acid is formed when $C_6H_5 - CHO$ condenses with $(CH_3CO_2)O$ in the presence of

A. Sodium metal

B. Conc . H_2SO_4

C. Sodium acetate

D. Anhydrous $ZnCl_2$

Answer: C

Watch Video Solution

16. The chemical formula of chile salt petre is _____ .

A. $NaNO_3$

B. $Na_2SO_{4.10}H_2O$

C. KNO_3

D. $Na_2S_2O_{3.5}H_2O$

Answer: A

Watch Video Solution

17. The freshly prepared solution if sugar undergo change in optical rotation , with time , is known as

A. Inversion

B. Specific rotation

C. Rotatory motion

D. Mutarotation

Answer: D

Watch Video Solution

18. Calculate molarity of the resultant solution obtained by mixing 1 M and 2 .5 liter NaON solution and 0.5 M 3 liter NaOH solution .

A. 0.50 M

B. 0.73 M

C. 0.80 M

D. 1.0 M

Answer: B

Watch Video Solution

19. Electrolytic refining's is used to purify which of the following metals?

A. Cu and Zn

B. Ge and Si

C. Zr and Ti

D. Zn and Hg

Answer: A

Watch Video Solution

20. In which of the following crystals, alternate tetrahedral voids are occupied?

A. Na_2O

B. ZnS

C. NaCl

D. CaF_2

Answer: B

Watch Video Solution

21. Which of the following drugs is an analgesic?

A. Penicillin

B. Paludrin

C. Sulphaguanidine

D. Analgin

Answer: D

Watch Video Solution

22. By adding which of the following process, permanent hardness of water can be removed.

A. Sodiumbicarbonate

B. Sodium chloride

C. Washing soda

D. Sodalime

Answer: C

Watch Video Solution

23. Which statement of the following is incorrect for gases ?

A. Volume of the gas is equal to the volume of the container confining the gas

B. Confined gas exerts uniform pressure on the walls of its container in all directions

C. Gases do not have a definite shape and volume

D. Mass of the gas cannot gas cannot be determined by weighing a container in which it is enclosed

Answer: D

Watch Video Solution

24. Which of the following will exhibit geometrical isomerism?

A. Propene

B. Butene - 2

C. Butene - 1

D. 1, 1 - dichloro butane

Answer: B

Watch Video Solution

25. Which is a characteristic of catalyst used in a chemical reaction ?

A. Decreases rate constant of the reaction

B. Increase activation energy of the reaction

C. Reduces enthalpy of the reaction

D. Does not affect equilibrium constant of reaction

Answer: D

Watch Video Solution

26. The equilibrium that exists in aqueous solution , $CH_3COOH \Leftrightarrow CH_3COO^- + H^+$ if dil HCI is added at constant temperature then

A. The equilibrium constant will increase

B. The equilibrium constant will decrease

C. Concentration of CH_3COO^- will decrease

D. Concentration of CH_3COO^- will increase

Answer: C

Watch Video Solution

27. For the reaction of one mole of zinc dust with one mole of sulphuric acid in a bomb calorimeter ΔU and w correspond to

A. $\Delta U < 0, w = 0$

B. $\Delta U > 0, w = 0$

C. $\Delta U = 0, w < 0$

D. $\Delta U < 0, w > 0$

Answer: A

Watch Video Solution

28. The rate of a non - geseous reaction does not dependent on

A. Catalyst

B. Pressure

C. Concentration of CH_3COO^- will decrease

D. Temperature

Answer: B

Watch Video Solution

29. In the given cell representation $Zn|Zn^{2+}||Cu^{2+}|Cu$, which is the negative electrode ?

A. Zn^{2+}

B. Cu^{2+}

C. Zn

D. Cu

Answer: C

Watch Video Solution

30. In the following reaction correct change in phosphorus is explained by ,

$$4P + 3KOH + 3H_2O \rightarrow 3KH_2PO_2 + PH_3$$

A. P is oxidized as well as reduced

B. P is oxidized only

C. P is reduced only

D. None of these

Answer: A

Watch Video Solution

31. What is the oxidising agent in chlorine water ?

A. HCl

B. $HClO_2$

C. HOCl

D. None of these

Answer: C

Watch Video Solution

32. Activated charcoal is used to remove colouring matter from pure substance, it works by

A. Bleaching

B. Reduction

C. Oxidation

D. Adsorption

Answer: D

Watch Video Solution

33. P_2O_5 is heated with water to give

A. Hypophosphorus acid

B. Hypophosphoric acid

C. Orthophosphoric acid

D. Orthophosphorus acid

Answer: C

Watch Video Solution

34. One electron species having ionization enegry of $54.4eV$ is

A. He^+

B. H

C. Be^{2+}

D. Be^{3+}

Answer: A

Watch Video Solution

35. The structure of compound, which is formed by sp^3d hybridization will be

A. Angular

B. Planar

C. Pyramidal

D. Trigonal bipyramidal

Answer: D

Watch Video Solution

36. Arrange following carbocation in the decreasing order of stability

(i) $CH_3 - \overset{+}{C}H - CH_3$

(ii) $CH_3 - \overset{+}{C}H - O - CH_3$

(iii) $CH_3 - \overset{+}{C}H - CO - CH_3$

A. $(iii) > (ii) > (i)$

B. $(i) > (ii) > (iii)$

C. $(i) > (ii) > (iii)$

D. $(i) < (ii) < (iii)$

Answer: C

Watch Video Solution

37. Which is not an example of an ideal solution ?

A. $C_6H_{14} + C_7H_{16}$

B. $H_2O + C_4H_9OH$

C. $C_2H_5Br + C_2H_5I$

D. $CCl_4 + SiCl_4$

Answer: B

Watch Video Solution

38. Calculate the heat of formation of CO using given equations

$$C + O_2 \rightarrow CO_2, \Delta H = X$$

$$CO + \frac{1}{2}O_2 \rightarrow CO_2, \Delta H = Y$$

A. X - Y

B. X + Y

C. Y - 2X

D. 2X - Y

Answer: A

Watch Video Solution

39. Calculate the standard potential of the cell ,If the standard electrode potentials of

Zn^{2+}/Zn and Ag^{+}/Ag are -0.763 V and + 0.799 V respectively .

A. 0.036 V

B. 1.56 V

C. $-1.562V$

D. 0.799V

Answer: B

Watch Video Solution

40. The total number of structural ethers possible with the molecular formula $C_5H_{12}O$?

A. 4

B. 5

C. 6

D. 7

Answer: C

Watch Video Solution

41. What is vinegar ?

A. HCOOH

B. HCHO

C. CH_3CHO

D. CH_3COOH

Answer: D

Watch Video Solution

42. Which of the following polymer is an example of fibre ?

A. Silk

B. Nylon - 6 , 6

C. Dacron

D. All of these

Answer: D

Watch Video Solution

43. The gas A is bubbled through lime water , a while precipitate is formed . This precipitate dissolved on prolonged bubbling the same gas. On heating this solution, the white precipitate reappears with the evolution of gas B . The gases A and B respectively are

A. CO and CO_2

B. CO_2 and CO

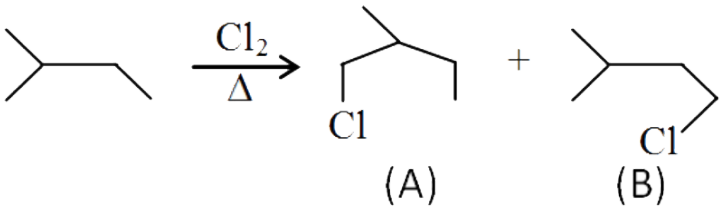
C. CO and CO

D. CO_2 and CO_2

Answer: D

Watch Video Solution

44. If the reactivity factor for chlorine substitution through free radical by abstracting a primary H - atom is 1 then the ratio of the amount of product A and B is -



A. 1 : 1

B. 1 : 2

C. 2 : 1

D. 3 : 1

Answer: C

Watch Video Solution

45. The missing structures A and B in the recation sequence:

$$R-CH_2-CH_2OH \xrightarrow[350^\circ C]{AI\,(2)\,O_3} R-CH=CH_2 \xrightarrow[(ii)\,Zn/H_3O]{(i)\,O_3}$$

$RCHO+A$, $RCHO \xrightarrow{Reduct} B$, are

A. CH_3OH, $RCOOH$

B. Methanal , RCH_2OH

C. Ethanal , RCOOH

D. Methanal , RCHOHR

Answer: B

Watch Video Solution