



CHEMISTRY

BOOKS - NTA MOCK TESTS

NEET MOCK TEST 07

Chemistry

1. The density of a gas is 1.964 gdm^{-3} at 273K and 76cmHg . The gas is

A. CH_4

B. C_2H_6

C. CO_2

D. Xe

Answer: C



Watch Video Solution

2. In $Fe(CO)_5$ the Fe-C bond possesses

A. π - character only

B. Ionic character

C. σ - character only

D. Both σ and π characters

Answer: D



Watch Video Solution

3. Which is used for the formation of nylon-6, 6 ?

A. Sulphurhexa fluoride

B. Adipic acid

C. Sulphurous acid

D. Phthalic acid

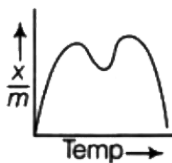
Answer: B



Watch Video Solution

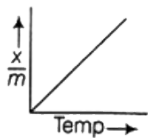
4. Which of the following represents physical adsorption?

A.

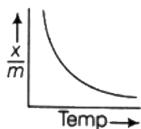


B.





C.



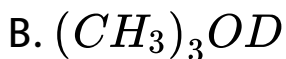
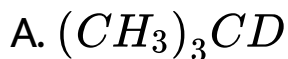
D.

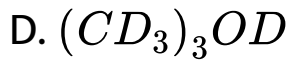
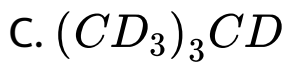
Answer: D



Watch Video Solution

5. $(CH_3)_3CMgCl$ on reaction with D_2O produces





Answer: A



Watch Video Solution

6. Difference in density is the basis of

A. Ultrafiltration

B. Molecular sieving

C. Gravity separation

D. Molecular attraction

Answer: C



Watch Video Solution

7. Stibene ($PhCH = CHPh$). Can exist in two diastereomeric forms (X) and (Y) and (X) is found to be more soluble in water than (Y). Predict which of the following statement is correct?

A. X is trans isomer

B. Stability of $x >$ Stability of Y

C. Melting point of $X >$ Melting point of Y

D. Boiling point of $X >$ boiling point of Y

Answer: D



Watch Video Solution

8. "Chile saltpeter" is an ore of

A. Iodine

B. Sodium

C. Bromine

D. Magnesium

Answer: B



Watch Video Solution

9. Which among the following statements is false?

A. The correct order of osmotic pressure for

0.01 M aqueous solution of each compound

is

$BaCl_2 > KCl > CH_3COOH > \text{Sucrose.}$

B. The osmotic pressure (π) of a solution is given by the equation (πMRT) where eM is the molarity of the solution).

C. Raoult's law states that the vapour pressure of a component over a solution is proportional to its mole fraction.

D. Two sucrose solutions of the same molality prepared in different solvents will have the same freezing point depression.

Answer: D



10. The rate law for a reaction between the substances A and B is given by

$$\text{Rate} = k[A]^n[B]^m$$

On doubling the concentration of A and halving the concentration of B, the ratio of the new rate to the earlier rate of the reaction will be as:

A. $m + n$

B. $n - m$

C. $2^{(n-m)}$

D. 2^{m+n}

Answer: C



Watch Video Solution

11. How many carbon atoms are present in 0.35 mole of $C_6H_{12}O_6$?

(Given : $N_A = 6.023 \times 10^{23}$)

A. 1.26×10^2 carbon atoms

B. 1.26×10^{24} carbon atoms

C. 1.26×10^{44} carbon atoms

D. 1.26×10^{48} carbon atoms

Answer: B



Watch Video Solution

12. Which of the following shell , form only outer orbital octahedral complex ?



D. None of these

Answer: B



[Watch Video Solution](#)

13. Which of the following is hypnotic drug?

A. Luminal

B. Salol

C. Catechol

D. paracetamol

Answer: A



[Watch Video Solution](#)

14. Which of the following statements is correct?

A. The electronic configuration of Cr is



B. The magnetic quantum number may have a negative value

C. In silver atom 23 electrons have a spin of one type and 24 of the opposite type,
(Atomic No. of Ag = 47)

D. All of the above

Answer: D



Watch Video Solution

15. Which of the following is the wrong statement?

A. All the actinoid elements are radioactive

B. Alkali and alkaline earth metals are s - block elements

C. Chalcogens and halogens are p - block elements

D. The first member of the lanthanoid series is

lanthanum

Answer: D



Watch Video Solution

16. A gaseous mixture containing He, CH_4 and SO_2 in 1:2:3 mole ratio, calculate the molar ratio of gases effusing out initially.

A. $\sqrt{2} : \sqrt{2} : 3$

B. 2 : 2 : 3

C. 4:4:3

D. 1:1:3

Answer: C

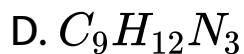
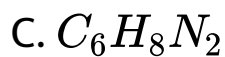


Watch Video Solution

17. In a compound C , H , N atoms are present in 9:1:3.5 by weight. Molecular weight of compound is 108. Its molecular formula is:

A. $C_2H_6N_2$

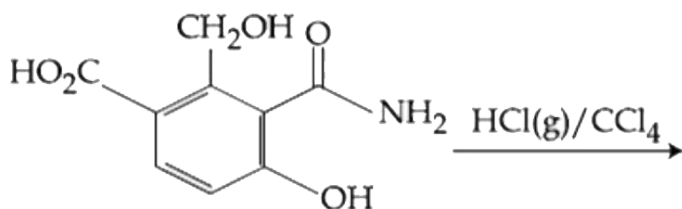
B. C_3H_4N

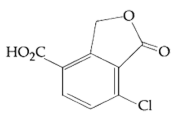


Answer: C

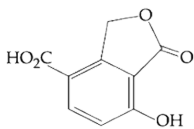
 **Watch Video Solution**

18. The major product expected from the following reaction is :

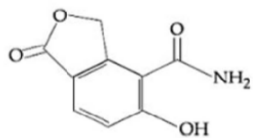




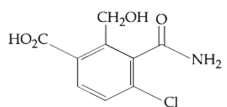
A.



B.



C.



D.

Answer: C



Watch Video Solution

19. PCl_5 causes cleavage of ether linkage $R - O - R'$ forming RCl , $R'Cl$ and $POCl_3$. $C_5H_{12}O$ on reaction with PCl_5 forms 2 - chloropropane and 1 - chloroethane as main compound.

Thus, $C_5H_{12}O$ is named as

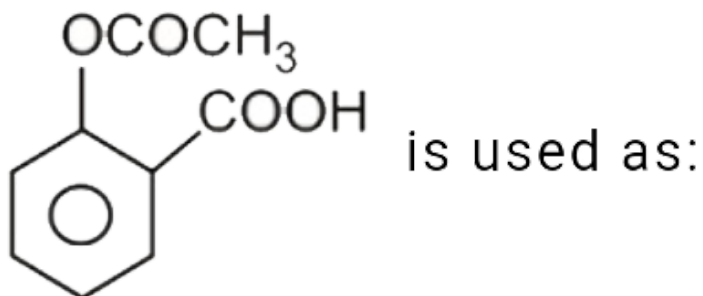
- A. 1 - ethoxypropane
- B. 2 - ethoxypropane
- C. 1 - ethyl propane
- D. 2 - ethylpropane

Answer: B



Watch Video Solution

20. Complete the following reaction



- A. Antacid
- B. Insecticide
- C. Antihistamine
- D. Analgesic

Answer: D



Watch Video Solution

21. The density of KBr is 2.75gcm^{-3} length of the unit cell is 654pm . $K = 39$, $Br = 80$, then what is true about the predicted nature of the solid?

A. Solid has face centred cubic system with coordination number = 6

B. Solid has simple cubic system with coordination number = 4

C. Solid has face centred cubic system with coordination number = 1

D. None of the above

Answer: A



Watch Video Solution

22. Benzamide on treatment with $POCl_3$ gives :

A. Aniline

B. Benzonitrile

C. Chlorobenzene

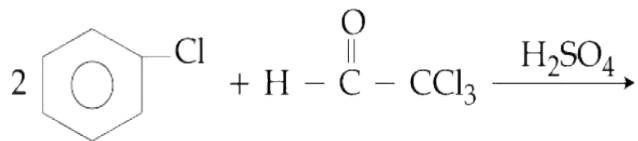
D. Benzyl amine

Answer: B

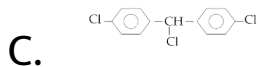
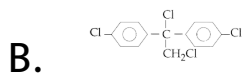
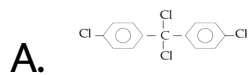


Watch Video Solution

23. Chlorobenzene reacts with trichloro acetaldehyde in the presence of H_2SO_4



The major product formed is :



Answer: D



Watch Video Solution

24. Electrolysis of a solution of HSO_4^- ions produces $S_2O_8^{2-}$. Assuming 75% current efficiency, what current should be employed to achieve a production rate of 1 "mole" of $S_2O_8^{2-}$ per hour?

- A. 71.50 A
- B. 35.70 A
- C. 142.96 A
- D. 285.93 A

Answer: A



25. Sodium chloride is soluble in water but not in benzene because

A. $\Delta H_{\text{solvation}} < \Delta H_{\text{Lattice energy}}$ in water and

$\Delta H_{\text{solvation}} > \Delta H_{\text{Lattice energy}}$ in benzene

B. $\Delta H_{\text{solvation}} > \Delta H_{\text{Lattice energy}}$ in water and

$\Delta H_{\text{solvation}} < \Delta H_{\text{Lattice energy}}$ in benzene

C. $\Delta H_{\text{solvation}} = \Delta H_{\text{Lattice energy}}$ in water and

$\Delta H_{\text{solvation}} > \Delta H_{\text{Lattice energy}}$ in benzene

D. $\Delta H_{\text{solvation}} < \Delta H_{\text{Lattice energy}}$ in water and

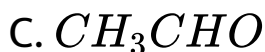
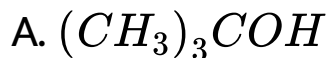
$\Delta H_{\text{solvation}} = \Delta H_{\text{Lattice energy}}$ in benzene

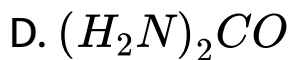
Answer: B



Watch Video Solution

26. The compound in which all carbon atoms use only sp^3 -hybrid orbitals for bond formation is:





Answer: A



Watch Video Solution

27. Which of the following will produce only one product on reduction with $LiAlH_4$?

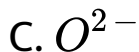
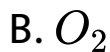


Answer: A



Watch Video Solution

28. When H_2O_2 is oxidised, the product is

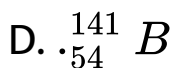
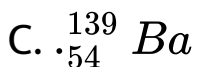
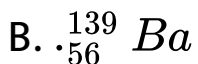
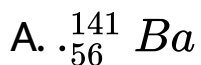
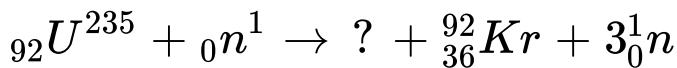


Answer: B



Watch Video Solution

29. Fill in the blank



Answer: A



Watch Video Solution

30. The pH value of decinormal solution of NH_4OH which is 20% ionised is

A. 13.30

B. 14.70

C. 12.30

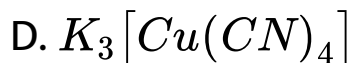
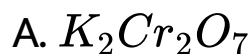
D. 12.95

Answer: C



Watch Video Solution

31. Among the following, the compound that is both paramagnetic and coloured is



Answer: C



Watch Video Solution

32. The alkali metals form salt like hydrides by the direct synthesis at elevated temperature. The thermal stability of these hydrides decreases in which of the following orders ?

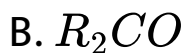
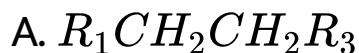


Answer: B



Watch Video Solution

33. By the ozonolysis of $RCH = CR_1R_2$ which of the following of the product obtained



D. None of these

Answer: C



Watch Video Solution

34. The relative lowering of vapour pressure of an aqueous solution containing a non-volatile solute, is 0.0125. The molality of the solution is

A. 0.70

B. 0.50

C. 0.80

D. 0.40

Answer: A



Watch Video Solution

35. A chemistry student trying to detect the metallic ion in a salt, makes a paste on a clean platinum wire loop of the salt with concentrated HCl. When he takes a small amount of this paste and keeps it in a non-luminous Bunsen flame, the colour of the flame changes to grassy green. He should, therefore, conclude that the metal is

A. Barium

B. Calcium

C. Potassium

D. Strontium

Answer: A



Watch Video Solution

36. Pauling's electronegativity values for elements are useful in predicting

- A. Polarity of bonds in molecules
- B. Positions of elements in electrochemical series
- C. Co - ordination number of elements
- D. Oxidation number of elements

Answer: A



Watch Video Solution

37. The enthalpy of vaporisation of a liquid is 30kJmol^{-1} and entropy of vaporisation is $75\text{Jmol}^{-1}\text{K}^{-1}$. The boiling point of the liquid at 1atm is :

A. 250 K

B. 400 K

C. 450 K

D. 600 K

Answer: B



Watch Video Solution

38. Lanthanide contraction is caused due to -

A. The imperfect shielding on outer electrons

by 4 f - electrons from the nuclear charge

B. The appreciable shielding on outer

electrons by 4 f- electrons from the nuclear

charge

C. The appreciable shielding on outer electrons by 5d - electrons from nuclear charge

D. The same effective nuclear charge from Ce to Lu

Answer: A



Watch Video Solution

39. Which of the following are not state functions?

(I) $q + w$

(II) q

(III) w

(IV) $H - TS$

A. (I) and (IV)

B. (II), (III) and (IV)

C. (I), (II) and (III)

D. (II) and (III)

Answer: D



Watch Video Solution

40. Which of the following cannot form an amphoteric oxide ?

A. Al

B. Sn

C. Sb

D. P

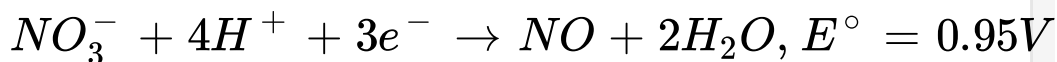
Answer: D



Watch Video Solution

41. What is the potential of an electrode which originally contained $0.1MNO_3^-$ and $0.4MH^+$ and which has been treated by 60% of the cadmium necessary to reduce all the NO_3^- to $NO(g)$ at 1 atm.

Given,



and $\log 2 = 0.3010$

A. 0.52 V

B. 0.44

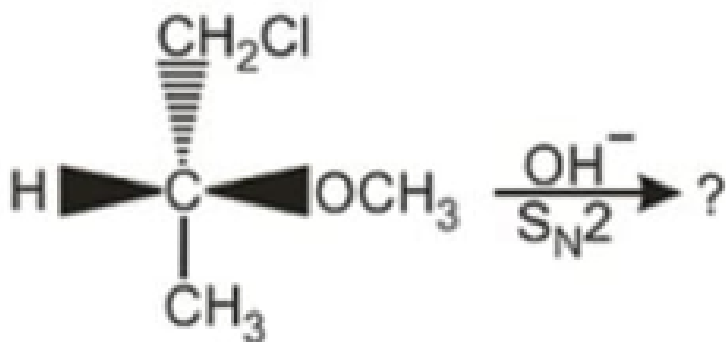
C. 0.86 V

D. 0.78 V

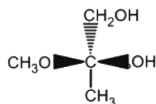
Answer: C

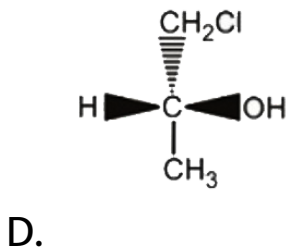
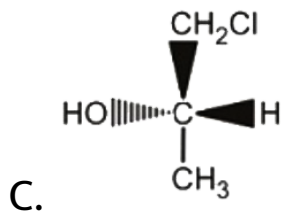
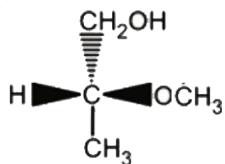
 Watch Video Solution

42. What is the major product of the reaction ?



A.





Answer: B

 **Watch Video Solution**

43. Rutherford's α particle scattering experiment eventually led to the conclusion that

- A. mass and energy are related
- B. electrons occupy space around the nucleus
- C. neutrons are found deep in the nucleus
- D. the point of impact with matter can be precisely determined

Answer: B



Watch Video Solution

44. $[Fe(NO_2)_3Cl_3]$ and $[Fe(O - NO)_3Cl_3]$

show

- A. Linkage isomerism
- B. Geometrical isomerism
- C. Optical isomerism
- D. Hydrate isomerism

Answer: A



Watch Video Solution

45. The equilibrium constant of the reaction $A_2(g) + B_2(g) \rightleftharpoons 2AB(g)$ at 373 K is 50. If 1 L of flask containing 1 mole of $A_2(g)$ is connected to 2L flask containing 2 moles $B_2(g)$ at $100^\circ C$, the amount of AB produced at equilibrium at $100^\circ C$ would be

- A. 0.93 mol
- B. 1.87 mol
- C. 2.80 mol
- D. 3.74 mol

Answer: B



Watch Video Solution