

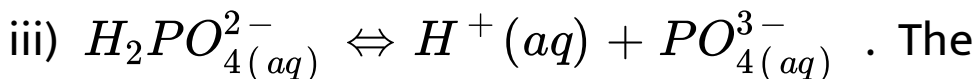
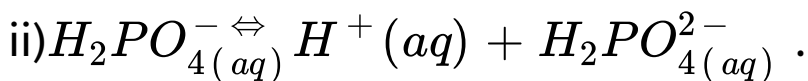
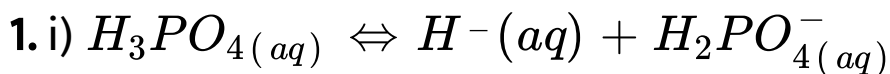


CHEMISTRY

BOOKS - TS EAMCET PREVIOUS YEAR PAPERS

AP EAMCET ENGINEERING ENTRANCE EXAM QUESTION PAPER 2017 (SOLVED)

Chemistry

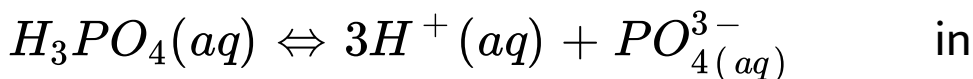


equilibrium constants for the above reactions

at a certain temperature are K_1 , K_2 and K_3

respectively. The equilibrium constant for the

reaction.



terms K_1 , K_2 and K_3 is

A. $K_1 + K_2 + K_3$

B. $\frac{K_1}{K_2 + K_3}$

C. $\frac{K_3}{K_1 K_3}$

D. $K_1 K_2 K_3$

Answer: D



Watch Video Solution

2. Which among the following are having diamagnetic property ?

(i) B_2 (ii) N_2

(iii) O_2 (iv) C_2

A. ii, iii

B. I, iv

C. ii, iv

D. I, ii

Answer: C



Watch Video Solution

3. Which one of the following statements is not correct?

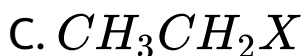
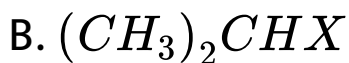
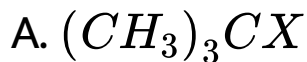
- A. The hydration enthalpies of alkali metal ions decrease down group .
- B. Lithium halides are some what covalent in nature.
- C. Alkali metals react with water liberating oxygen gas
- D. KO_2 is paramagnetic

Answer: C



Watch Video Solution

4. Which one of the following is more reactive towards S_N2 reaction?

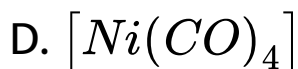
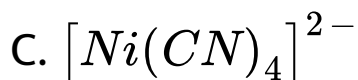
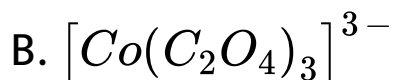
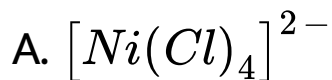


Answer: D



Watch Video Solution

5. Identify, from the following the diamagnetic, tetrahedral complex



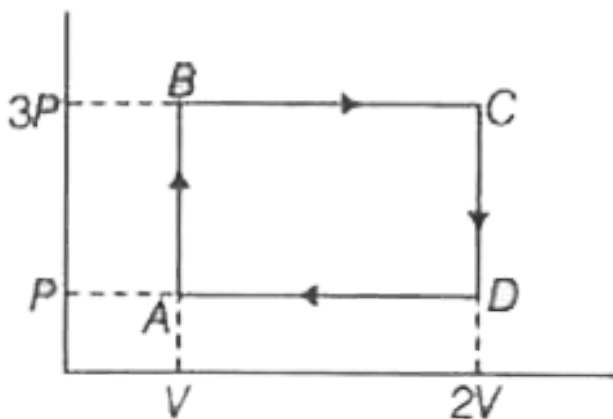
Answer: D



Watch Video Solution

6. What are X and Y in the following reactions

?



A.



B.



C.



D.



Answer: A



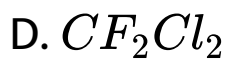
View Text Solution

7. Which of the following forms holes in the Ozone layer?

A. CO

B. SO_2

C. CO_2



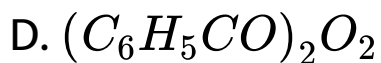
Answer: D



Watch Video Solution

8. Which one of the following is not used as an initiator in ionic polymerisation?





Answer: D



Watch Video Solution

9. Identify the statement which is not correct ?

A. Dehydrobromination of 2-

bromopentane gives pent-1-ene as the

major product

B. Freon 12 is manufactured by Samarts

reaction

C. $CHCl_3$ is stored in closed, dark

coloured bottles

D. Chronic exposure to $CHCl_3$ causes liver

damage

Answer: A



Watch Video Solution

10. To prepare XeF_6 , Xe and F_2 are mixed at 573K and 60 -70 bar in the ratio of

A. 20:1

B. 1:5

C. 5:1

D. 1:20

Answer: D



Watch Video Solution

11. Which one of the following solutions of compounds show highest osmotic pressure?

(AB, AB_2 and A_2B_3 are ionic compounds)

A. 5.0 M urea $i = 1.0$ and temperature is

$67^\circ C$

B. 1.5 M A_2B_2 type $i = 4.1$ and

temperature is $27^\circ C$

C. 3.0 M AB type $i = 1.6$ and temperature is

$27^\circ C$

D. 2 . 5 M AB_2 type I = 2 . 5 and

temperatuer is $57^\circ C$

Answer: D



Watch Video Solution

12. In which of the following reactions,

Hydrogen is liberated?



A. I, ii

B. ii, iii

C. I, iii

D. I, ii, iii

Answer: D



Watch Video Solution

13. 31 g of ethylene glycol ($C_2H_6O_2$) is dissolved in 600g of water. The freezing point

depression of the solution is (K_f for water is $1.86 \text{ K Kg mol}^{-1}$)

A. 0.77 K

B. 1.55 K

C. 4.65 K

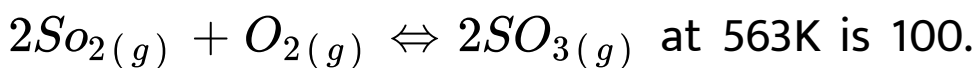
D. 3.10 K

Answer: B



Watch Video Solution

14. The equilibrium constant (K_c) for the following equilibrium



at equilibrium, the number of moles of SO_3 in the 10 litre flask is twice the number of moles of SO_2 , then the numbers of moles of oxygen is

A. 0.4

B. 0.3

C. 0.2

D. 0. 1

Answer: A



Watch Video Solution

15. The energy and radius of electron present in second orbit of He^+ respectively are

A. $-1.09 \times 10^{-18} J, 105.8 pm$

B. $-8.72 \times 10^{-18} J, 211.6 pm$

C. $-4.36 \times 10^{-18} J, 52.9 pm$

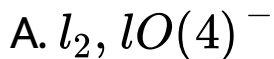
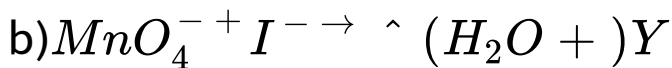
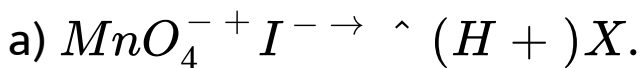
$$D. -2.18 \times 10^{-18} J, 105.8 pm$$

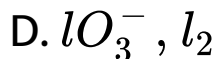
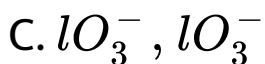
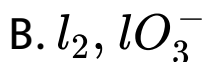
Answer: D



Watch Video Solution

16. What are X and Y in the following reactions?





Answer: B



Watch Video Solution

17. Assertion (A) : Na^+ and Mg^{2+} ions are isoelectronic but the ionic radius of Na^+ is greater than the of Mg^{2+} . Reason (R) : The

effective nuclear charge of Na^+ ion is less than that of Mg^{2+} ion.

A. Both (A) and (R) are correct but (R) is not the correct explanation of (A)

B. Both (A) and (R) are correct and (R) is correct explanation of (A)

C. (A) is not correct but (R) is correct

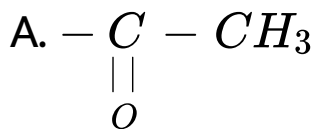
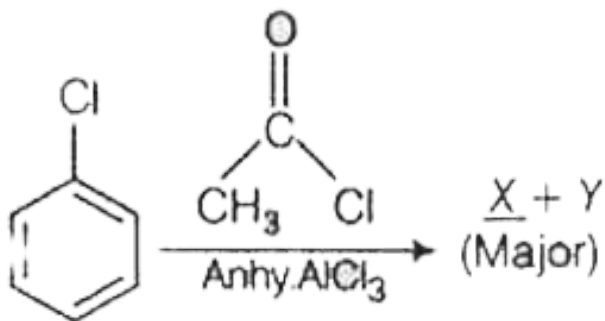
D. (A) is correct but (R) is not correct .

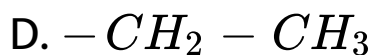
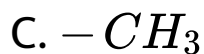
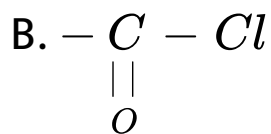
Answer: B



Watch Video Solution

18. What is Z in the following sequence of reaction ?





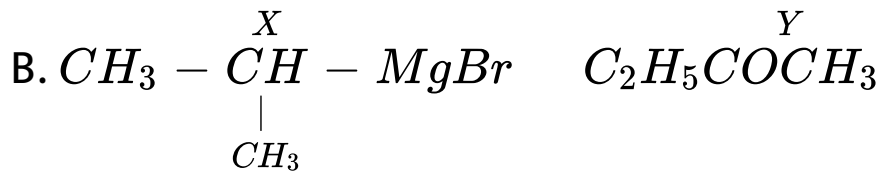
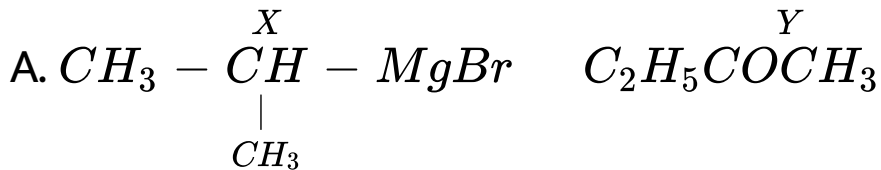
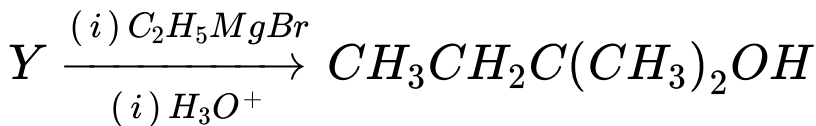
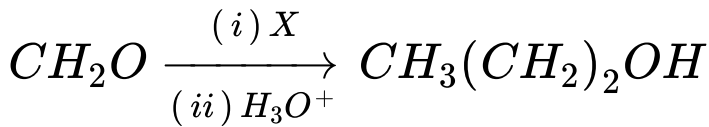
Answer: D



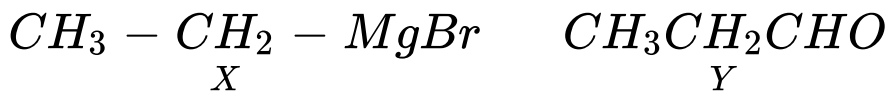
Watch Video Solution

19. What are X and Y in the following reactions

?



C.

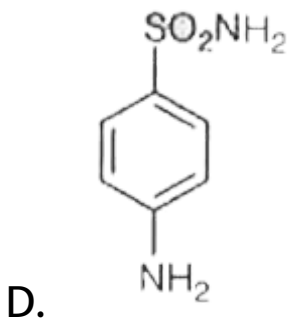
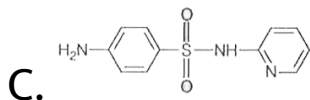
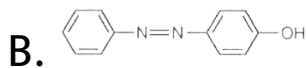
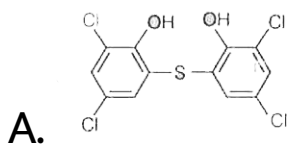


Answer: B



Watch Video Solution

20. Which of the following structure represents the compound, generally added to soaps to impart antiseptic properties ?



Answer: A



Watch Video Solution

21. The work functions of Ag, Mg, K and Na respectively in eV are 4.3, 3.7, 2.25, 2.30. when an electromagnetic radiation of wavelength of 300 nm is allowed to fall on these metal surfaces, the number of metals from which the electrons are ejected is.

$$(1eV = 1.6022 \times 10^{-19} J)$$

A. 4

B. 3

C. 2

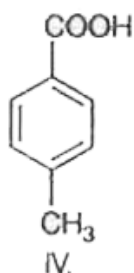
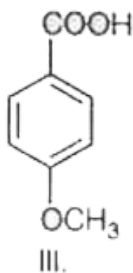
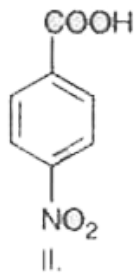
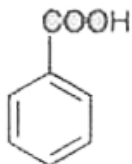
D. 5

Answer: B



Watch Video Solution

22. The increasing order of acidity of the following carboxylic acids is



A. $III > IV > II > I$

B. $II > III > II > I$

C. $I > II > IV > III$

D. $III > IV > I > II$

Answer: D



Watch Video Solution

23. Colloidal solution of gold is in different colours like red, purple, blue and golden because of

A. variable oxidation states of gold

B. size difference in the particles of gold

C. presence of impurities

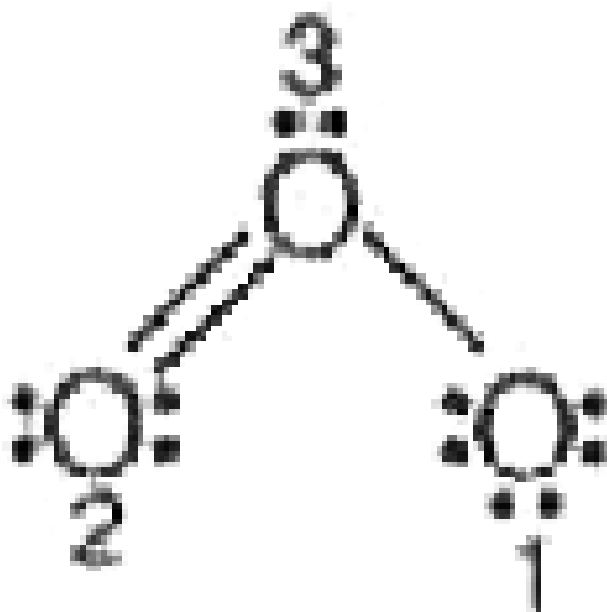
D. difference in the concentration of gold particles

Answer: B



Watch Video Solution

24. The Lewis structure for O_3 molecule is given below. The correct formal charges on oxygen atoms labelled 1, 2, 3 are respectively.



A. $-1, 0, +1$

B. + 1, 0, - 1

C. + 1, - 1, 0

D. 0, + 1, - 1

Answer: A



Watch Video Solution

25. Identify the statements which are not correct from the following

a) Carbohydrates are stored as glycogen in animals .

b) In glycylalanine, $-\overset{\overset{O}{\parallel}}{C}-$ of peptide bond belongs to alanine .

c) Base - sugar - phosphate unit is known as nucleoside .

d) Obesity is due to hypothyroidism . the correct answer is

A. *i, iv*

B. *ii, iii, iv*

C. *i, iii, iv*

D. *ii, iii*

Answer: D



Watch Video Solution

26. The enthalpy of formation ($\Delta_r H$) of methanol, formaldehyde and water -239 , -116 and -286KJmol^{-1} respectively. The enthalpy change for the oxidation of emthanol to formaldehyde and water in KJ is

A. -136

B. -173

C. 163

D. – 163

Answer: D



Watch Video Solution

27. Copper matte contains

A. CuO, FeS

B. Cu_2S, FeS

C. CuO, Cu_2S

D. Cu_2S , FeO

Answer: B



Watch Video Solution

28. At $27^\circ C$ in a 10L flask 4.0g of an ideal gaseous mixture containing He (molar mass 4.0 g mol^{-1}) and Ne (molar mass 20 g mol^{-1}) has a pressure of 1.23 atm. What is the mass% of neon? ($R = 0.082 \text{ LatmK}^{-1} \text{ mol}^{-1}$)

A. 25.2

B. 62.5

C. 84.2

D. 74.2

Answer: B



Watch Video Solution

29. $S + \text{conc. } H_2SO_4 \rightarrow X + Y$ here X is a gas and Y is a liquid and both are triatomic molecules. The number of electron lone pairs

present on the central atoms of X and Y are respectively.

A. 2, 1

B. 1, 0

C. 1, 2

D. 2, 2

Answer: C



Watch Video Solution

30. Identify the correct statements from the following

Electromeric effect is a permanent effect.

Hyper conjugation is a temporary effect.

Fractional distillation is used to separate two liquids from a mixture if the difference in their boiling points is less .

Different compounds are adsorbed on an adsorbent to different extents. the correct answer is

A. ii,iii,iv

B. i,ii,iii

C. ii,iv

D. iii,iv

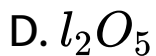
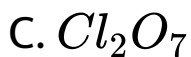
Answer: D



Watch Video Solution

31. Which of the following is used in the estimation of carbon monoxide?

A. I_2O_4



Answer: D



Watch Video Solution

32. Which one of the following statements is not correct?

A. In CO_2 molecule, carbon hybridisation is

sp

B. fullerenes are made by heating graphite

in an electric arc in presence of argon

gas .

C. Both $[SiF_6]^{2-}$ and $[SiCl_6]^{2-}$ ions are

know

D. In CO molecule, there are one 'sigma' (σ)

and two 'pi' (π) bonds.

Answer: C



Watch Video Solution

33. The drug, which was designed to prevent the interactions of histamine with the receptors present in the stomach wall is:

A. prontosil

B. cimetiding

C. aspartame

D. equanil

Answer: B



Watch Video Solution

34. Identify the correct statements for a ring system to exhibit aromaticity

a) It must not be planar .

b) It must possess $(4n + 2)\pi$ electrons.

c) it must be planar .

d) It must possess $4n\pi$ electrons . the correct

answer is

A. ii, iv

B. i, ii

C. i, iv

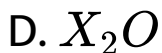
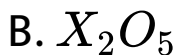
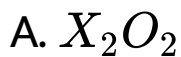
D. ii,iii

Answer: D



Watch Video Solution

35. Two oxides of a non-metal X contain 50% and 40% of non -metal respectively. If the formula of the first oxide is XO_2 , then the formula of second oxide is



Answer: C



Watch Video Solution

36. An element has a body centered cubic structure with a unit cell edge length of 400 pm. Atomic mass of an element is 24g mol^{-1}

What is the density of the element?

$$(N_A = 6 \times 10^{23} \text{ mol}^{-1})$$

A. 2.50 g cm^{-3}

B. 1.80 g cm^{-3}

C. 3.60 g cm^{-3}

D. 1.25 g cm^{-3}

Answer: D



Watch Video Solution

37. 20% of a first order reaction was found to be completed at 10 a.m at 11.30 a.m on the same dat, 20% of the reaction was found to be remaining . The half life period in minutes of the reaction is

A. 90

B. 45

C. 60

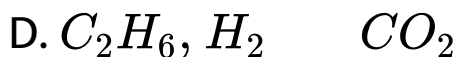
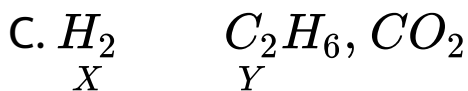
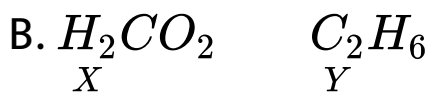
D. 30

Answer: B



View Text Solution

38. The gaseous products formed at cathode (X) and anode (Y), when an aqueous solution acetate is electrolysed are



Answer: C



Watch Video Solution

39. How many milliliters of 20 volume of H_2O_2 solution is needed to react completely with 500mL of acidified 1N $KMnO_4$ solution?

A. 224

B. 280

C. 140

D. 56

Answer: C



Watch Video Solution

40. Same amount of electricity is passed through aqueous solutions of $AgNO_3$ and $CuSO_4$. The number of Ag and Cu atoms deposited are x and y respectively. The correct relationship between x and y is

A. $x < y$

B. $x = 2y$

C. $x = y$

$$D. y = 2x$$

Answer: B



Watch Video Solution