



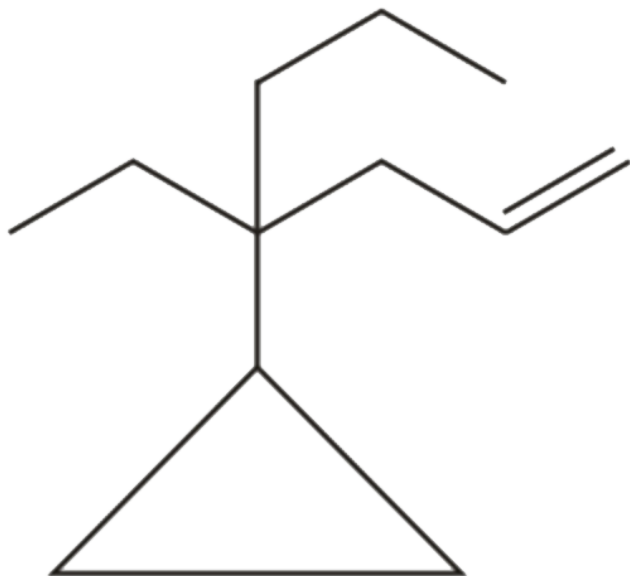
CHEMISTRY

BOOKS - NTA MOCK TESTS

NTA NEET SET 105

Chemistry

1. What is the correct IUPAC name of this compound?



A. 4-cyclopropyl-4-propyl hexene

B. 4-ethyl-4-cyclopropyl heptene

C. 4-cyclopropyl-4-ethyl heptene

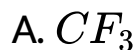
D. both B and C

Answer: C



Watch Video Solution

2. Hybridisation of central atom changes for which of the following molecule when undergoes dimerization?



D. All of these

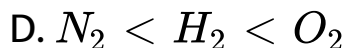
Answer: D



Watch Video Solution

3. The value of Henry's law constant for few gases at 298 K is given below. Arrange these gases in the increasing order of their solubility .

N_2 : 76.48 kbar. O_2 : 34.86 kbar, H_2 : 69.16 kbar



Answer: D



Watch Video Solution

4. If the distance between Na^+ and Cl^- ions in NaCl crystal is 'a' pm, the edge length of the unit cell is

A. $4apm$

B. $\frac{a}{4}pm$

C. $\frac{a}{2}pm$

D. $2apm$

Answer: D



Watch Video Solution

5. Drying agent which reacts with CO_2 and involves water vapour is

A. CaO

B. $CaCl_2$

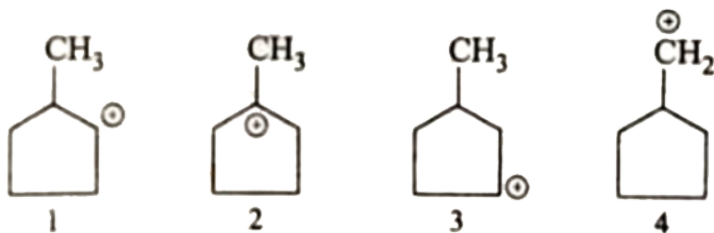
C. $CaCO_3$

D. $Ca(NO_3)_2$

Answer: A



6. Arrange stability of given carbocations in decreasing order



A. 1,2,3,4

B. 2,3,1,4

C. 2,1,3,4

D. 2,3,4,1

Answer: B



Watch Video Solution

7. The compressibility of a gas is less than unity at *STP* .

A. $V_m > 22.4$ litre

B. $V_m < 22.4$ litre

C. $V_m = 22.4$ litre

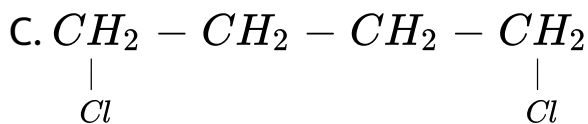
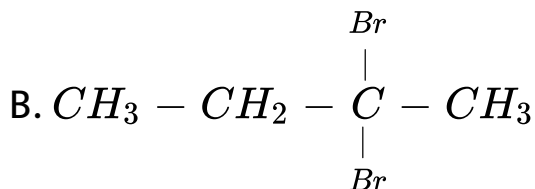
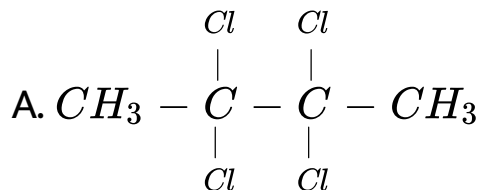
D. $V_m = 44.8$ litre

Answer: B



Watch Video Solution

8. 2-Butyne can be prepared from which of following compounds?



D. Both A and B

Answer: D



Watch Video Solution

9. What is not true about N_2O_3 ?

A. It is an equimolar mixture of NO and NO_2

B. N - N bond length is approximately 186 pm

C. Bond angle around N atoms are equal

D. All the bond angles around N atoms are different

Answer: C



Watch Video Solution

10. Which of the following set is having correct statements?

1. Molecular crystals are hard in nature

2. Silicon carbide is a covalent crystal

3. Increase in radius ratio result in increase in coordination number

4. In calcium fluoride structure, coordination number of Ca^{2+} is 4

A. 1,2

B. 2,3

C. 1,2,3

D. 2,3,4

Answer: B



Watch Video Solution

11. What is correct order of decreasing ionic character ?

$PbCl_2(I)$, $PbF_2(II)$, $PbI_2(III)$, $PbBr_2(IV)$

A. III gt IV gt I gt II

B. I gt II gt III gt IV

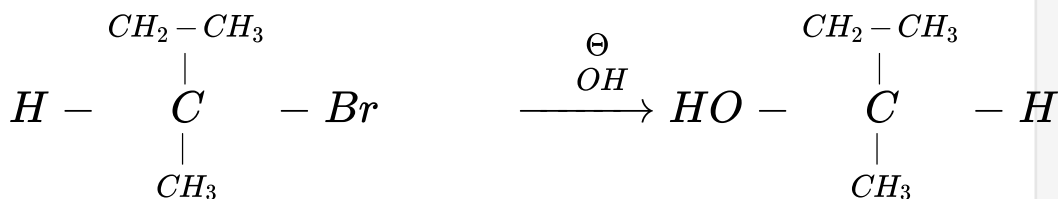
C. III gt I gt IV gt II

D. II gt I gt IV gt III

Answer: D

 Watch Video Solution

12. The give reaction



Is an example of

A. S_E2

B. S_N1

C. S_N2

D. S_E1

Answer: C



Watch Video Solution

13. In which of the following compounds , the nitrogen atom exhibits negative oxidation state?

A. Sodium nitrate

B. NO

C. Sodium azide

D. Sodium nitrite

Answer: C





14. An aqueous solution of hydrogen sulphide shows the equilibrium: $H_2S \rightleftharpoons H^{\oplus} + HS^{\ominus}$

If dilute hydrochloric acid is added to an aqueous solution of H_2S , without any change in temperature, the

- a. The equilibrium constant will change.
- b. The concentration HS^{\ominus} will increase.
- c. The concentration of un-dissociated hydrogen sulphide will decrease.
- d. The concentration of HS^{\ominus} will decrease.

A. the equilibrium constant will change

B. the concentration of HS^- will increase

C. the concentration of undissociated hydrogen sulphide will decrease

D. the concentration of HS^- will decrease

Answer: D



Watch Video Solution

15. In two H atoms A and B the electrons move around the nucleus in circular orbits of radius r and $4r$ respectively. The ratio of the times taken by them to complete one revolution is

A. 1:4

B. 1:2

C. 1:8

D. 2:1

Answer: C

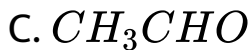
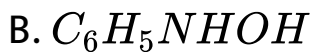


Watch Video Solution

16. Which of the following can reduce Tollen's reagent

?

A. *HCOOH*



D. All of these

Answer: D



Watch Video Solution

17. Aqueous solution of Ni^{2+} contains

$[Ni(H_2O)_6]^{2+}$ and its magnetic moment is 2.83 B.M.

When ammonia is added in it, the predicted change

in the magnetic moment of solution is:

A. it will remain same

B. it increases from 2.83 BM

C. it decreases from 2.83 BM

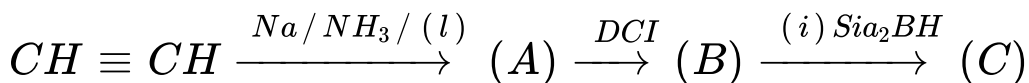
D. It cannot be predicted theoretically

Answer: A



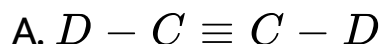
Watch Video Solution

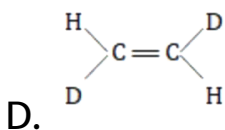
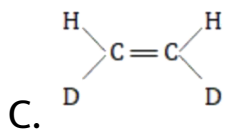
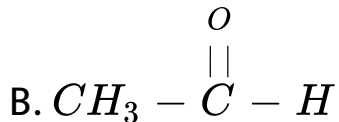
18. In the reaction



.

The product 'C' is





Answer: C



Watch Video Solution

19. The enthalpies of formation of N_2O and NO are 28 and 90 kJ mol^{-1} respectively. The enthalpy of the reaction, $2N_2O(g) + O_2(g) \rightarrow 4NO(g)$ is equal to

A. 8 kJ

B. 88 kJ

C. $-16kJ$

D. $304kJ$

Answer: D



Watch Video Solution

20. Three Faraday of electricity is passed through aqueous solutions of $AgNO_3$, $NiSO_4$ and $CoCl_3$ kept in three vessels using inert electrodes. The ratio

in mol in which the metals Ag, Ni and Co will deposited is

A. 3 : 2 : 1

B. 1 : 2 : 3

C. 2 : 3 : 6

D. 6 : 3 : 2

Answer: D



Watch Video Solution

21. What is the binding energy (in J/mol or kJ/mol) of an electron in a metal, whose threshold frequency for

photoelectron is $3.5 \times 10^{13} \text{ s}^{-1}$?

A. $66.38 \text{ kJ} / \text{mol}$

B. $6.95 \text{ kJ} / \text{mol}$

C. $13.91 \text{ kJ} / \text{mol}$

D. $27.82 \text{ kJ} / \text{mol}$

Answer: C



Watch Video Solution

22. The correct IUPAC name of

$[\text{Cr}(\text{H}_2\text{O})_5(\text{NCS})][\text{ZnBr}_4]$ is

A. pentaqua isothiocyanato chromate (II) tetra
bromozincate (II)

B. pentaqua isothio cyanate zince bromide
chromate (III)

C. pentaque isothiocyanato chromium (III) tetra
bromozincate (II)

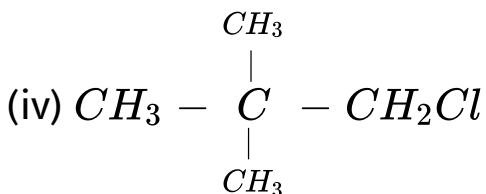
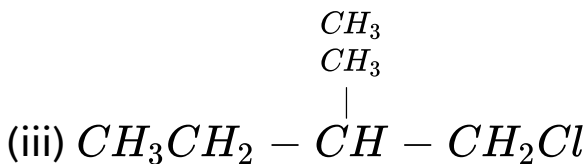
D. isothio cyantopenta aqua ammine chromium
(II) zinc chloride (IV)

Answer: C



Watch Video Solution

23. Arrange the following compounds in order of their reactivity towards S_N2 reaction



A. (iv) gt (ii) gt (i) gt (iii)

B. (ii) gt (iii)gt (iv) gt (i)

C. (iii) gt (i) gt (ii) gt (iv)

D. (i) gt (ii) gt (iii) gt (iv)

Answer: D



Watch Video Solution

24. What is the correct sequence of the increasing order of freezing point at one atmosphere of the following 0.01 M aqueous solution?

1. Urea, 2. Potassium chloride, 3. potassium sulphate,
4. Potassium phosphate.

Select the correct answer using the codes gives below

A. 3,4,1,2

B. 3,4,2,1

C. 4,3,1,2

D. 4,3,2,1

Answer: D



Watch Video Solution

25. Which of the following shape are not possible for possible value of n in XeF_n molecule ?

A. Linear

B. Square planar

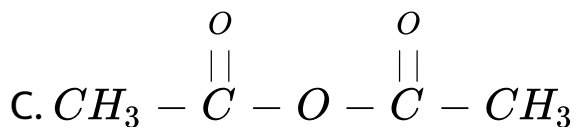
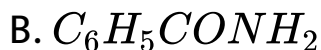
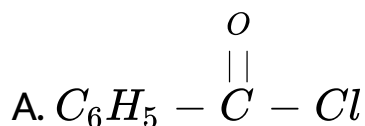
C. Trigonal planar

D. Capped octahedral

Answer: C

 Watch Video Solution

26. Which one of the following compounds gives carboxylic acid with HNO_2 ?



Answer: B



Watch Video Solution

27. Equal volumes of $1M\text{HCl}$ and $1M\text{H}_2\text{SO}_4$ are neutralised by $1M\text{NaOH}$ solution and x and $y\text{kJ}$ / equivalent of heat are liberated, respectively. Which of the following relations is correct?

A. $x = y$

B. $x = 0.5y$

C. $x = 0.4y$

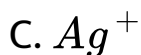
D. None of these

Answer: B



Watch Video Solution

28. Which of the following does not give borax bead test ?



Answer: C



Watch Video Solution

29. Two moles of an ideal gas is expanded isothermally and reversibly from 2 litre to 20 litre at 300 K. The enthalpy change (in kJ) for the process is

A. 22.4 kJ

B. -22.4kJ

C. 9.6kJ

D. 0kJ

Answer: D

30. If the maximum concentration of $PbCl_2$ in water is 0.01 M at $25^\circ C$, its maximum concentration in 0.1 M NaCl will be

A. $2 \times 10^{-3} M$

B. $1.6 \times 10^{-2} M$

C. $1 \times 10^{-4} M$

D. $4 \times 10^{-4} M$

Answer: D



Watch Video Solution

31. The incorrect statement regarding cellulose is

A. it is a polymer of D-glucose

B. It has $\beta - 1, 4 -$ glycosidic linkage

C. it is used for making rayon fibre

D. it can be obtained by polymerisation of D-glucose in the lab.

Answer: D



Watch Video Solution

32. Lactose on hydrolysis with dil.HCl gives

- A. Glucose and fructose
- B. Glucose and mannose
- C. Fructose and mannose
- D. Glucose and galactose

Answer: D



Watch Video Solution

33. For adsorption of gas on solid surface. The plots of $\log x / m$ versus $\log P$ is linear with a slope equal to

A. K

B. $\log K$

C. $1/nK$

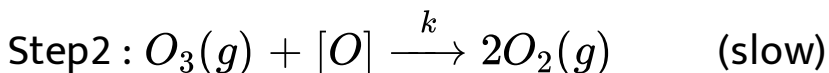
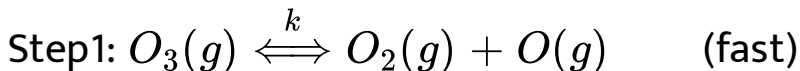
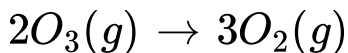
D. $1/n$ (n being integer)

Answer: D



Watch Video Solution

34. Ozone depletion takes place as :



order of the reaction will be :

A. 1

B. 2

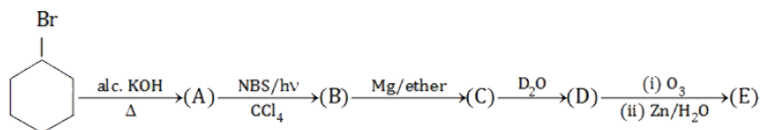
C. 3

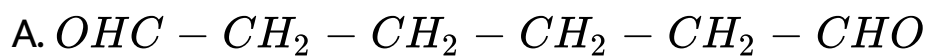
D. unpredictable

Answer: A

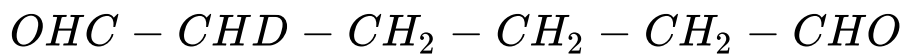
 **Watch Video Solution**

35. Complete the following

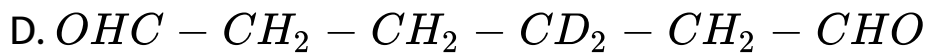
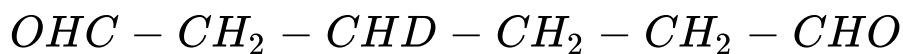




B.



C.



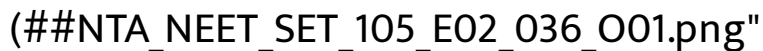
Answer: B



Watch Video Solution

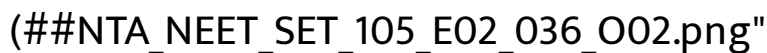
36. In which reaction the product is not correctly given ?

A. $\text{PhOCH}_3 + \text{Br}_2 \xrightarrow{\text{FeBr}_3}$

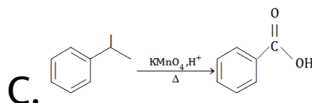
(NTA_NEET_SET_105_E02_036_001.png"

width="30%")>

B. $\text{PhCOOH} + \text{CH}_3\text{CH}_2\text{Cl} \xrightarrow{\text{AlCl}_3}$

(NTA_NEET_SET_105_E02_036_002.png"

width="30%")>



D. Both A and B

Answer: D



Watch Video Solution

37. The spin only magnetic moment value of $Cr(CO)_6$ is

A. 0

B. 2.84

C. 4.90

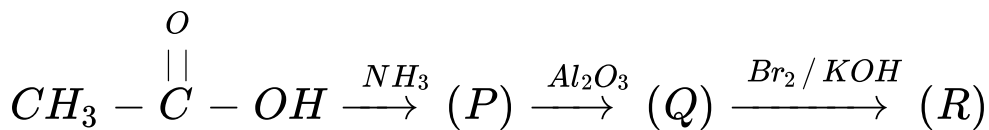
D. 5.92

Answer: A

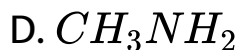
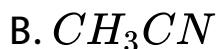


Watch Video Solution

38.



. R is



Answer: D



Watch Video Solution

39. A certain weak acid has a dissociation constant 1.0×10^{-4} . The equilibrium constant for its reaction with a strong base is :

A. 1.0×10^{-4}

B. 1.0×10^{-10}

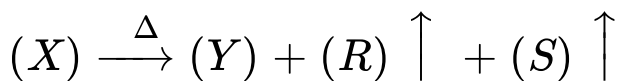
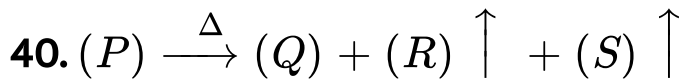
C. 1×10^{10}

D. 1.0×10^{-14}

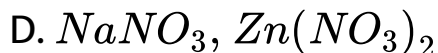
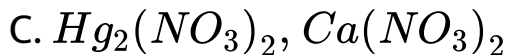
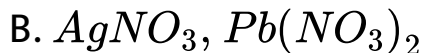
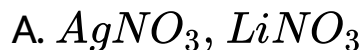
Answer: C



Watch Video Solution



P and X are respectively



Answer: B



Watch Video Solution

41. Table sugar is

A. A disaccharide consisting of D-glucose and D-fructose

B. a monosaccharide

C. a disaccharide of D-glucose

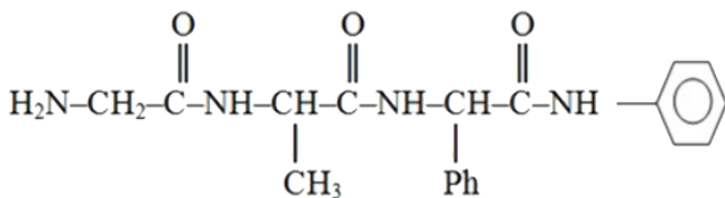
D. D - glucose

Answer: A



Watch Video Solution

42. The number of peptide bond(s) in the following molecule is



A. 3

B. 2

C. 1

D. 0

Answer: A



Watch Video Solution

43. The pair that requires calcination is

A. $ZnCO_3$ and CaO

B. $Fe_2O_3 \cdot xH_2O$ and $CaCO_3$, $MgCO_3$

C. ZnO and $Fe_2O_3 \cdot xH_2O$

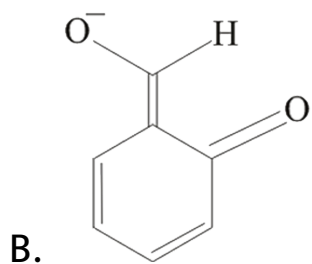
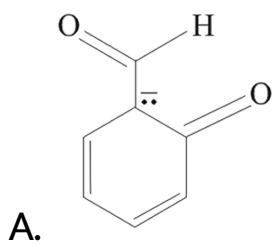
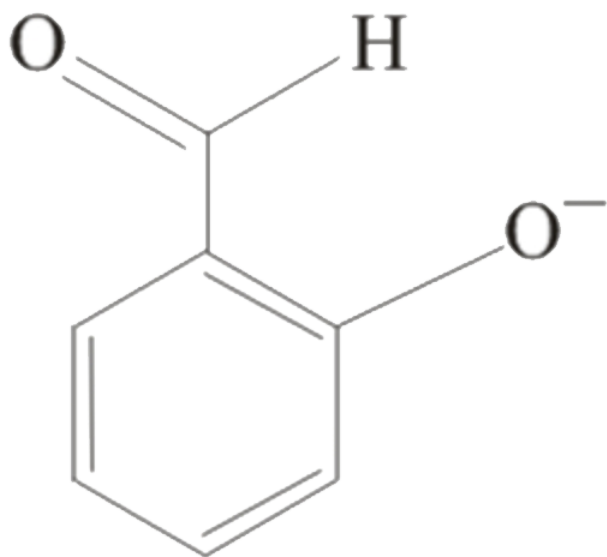
D. All of these

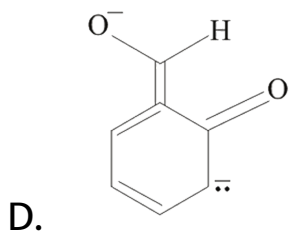
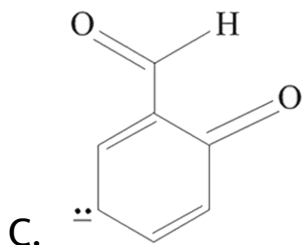
Answer: D



Watch Video Solution

44. Which one is not a resonance form of a phenolate ion?





Answer: D

 [Watch Video Solution](#)

45. The addition of Br_2 to (E)-but-2-ene gives

A. (R,R)-2,3-dibromobutane

B. (S,R)-2,3-dibromobutane

C. (R,S)-2,3-dibromobutane

D. A mixture of (R,R) and (S,S) 2,3 dibromobutane

Answer: C



Watch Video Solution