



CHEMISTRY

BOOKS - NTA MOCK TESTS

NTA TPC JEE MAIN TEST 71

Chemistry

1. In a compound AB atomic radius A and B are 4\AA and 2\AA . Electronegativity difference

between A and B is 1.9. The distance between A and B atoms d_{A-B} is

A. 6.72\AA

B. 5.82\AA

C. 6.9\AA

D. 7.5\AA

Answer: B



View Text Solution

2. Non metals in modern periodic table belongs to

A. s-block

B. p-block

C. d-block

D. f-block

Answer: B



View Text Solution

3. In the I_3^- ion, the number of bonds pair x and lone pairs Y around the central atom are

A. X Y
2 2

B. X Y
2 3

C. X Y
3 2

D. X Y
4 3

Answer: B



View Text Solution

4. Which of the following correctly matched

a. Mond's process - Ni

b. Zone Refining - Ti

c. Hoop's Method - Al

d. Hydro metallurgy - Ag

A. a,b,d

B. b,c,d

C. a,c,d

D. a,b,c,d

Answer: C

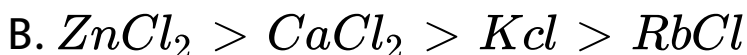


View Text Solution

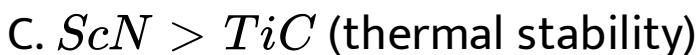
5. Which of the following statements is an incorrect statement?

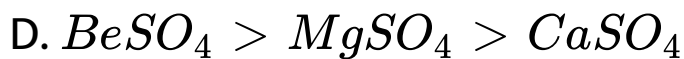


(thermal stability)



(covalent character)





(solubility)

Answer: C



View Text Solution

6. The correct statement about the magnetic properties of $[Fe(CN)_6]^{3-}$ and $[FeF_6]^{3-}$ is : $(Z - 26)$.

A. $[Fe(CN)_6]^{3-}$ is paramagnetic

$[FeF_6]^{3-}$ is diamagnetic

B. Both are diamagnetic

C. $[Fe(CN)_6]^{3-}$ is diamagnetic $[FeF_6]^{3-}$

is paramagnetic

D. Both are paramagnetic

Answer: D



View Text Solution

7. Which of the following order is correct for thermal stability?



Answer: A



View Text Solution

8. When glycerol reacts with exactly 3 moles of HI, it forms X and when it reacts with an excess of HI, it forms Y. Here Y and X, respectively are:

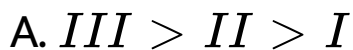
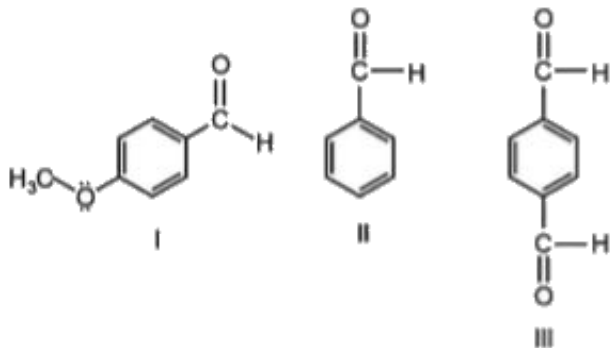
- A. 2-iodopropane and allyl iodide
- B. 1-iodopropane and allyl iodide
- C. Allyl iodide and 2-iodopropane
- D. Allyl iodide and propene

Answer: A



View Text Solution

9. The K_{eq} value of for the addition of HCN, to the following is

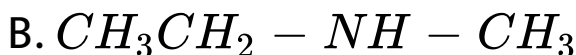
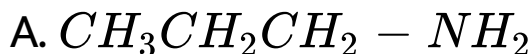


Answer: A



View Text Solution

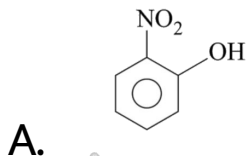
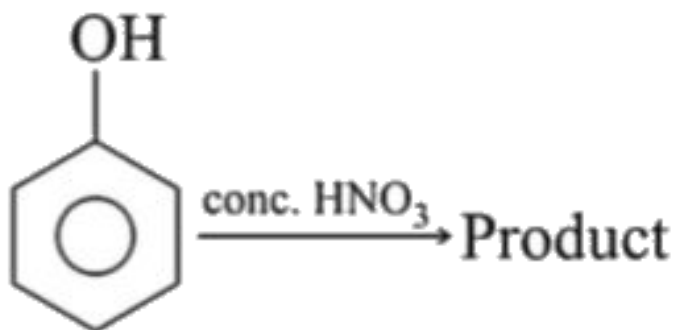
10. Which of the following compounds after reacting with benzene sulphonyl chloride is soluble in alkali solution:



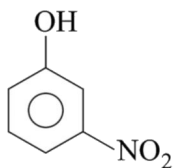
Answer: A

 [View Text Solution](#)

11. Main product of following reaction will be:



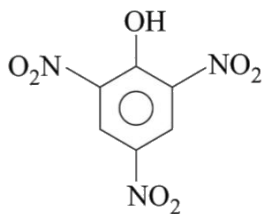
B.



C.



D.

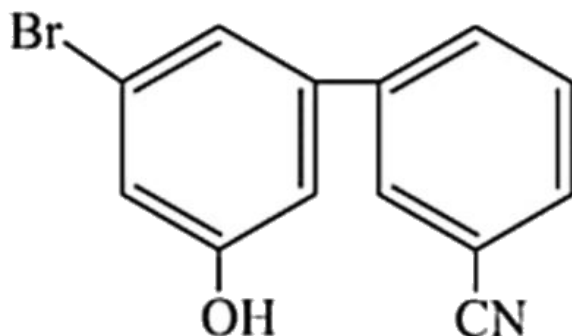


Answer: D



View Text Solution

12. What is the correct IUPAC name of the compound shown below?



A. 3-(3-bromo-5-hydroxy phenyl)

benzonitrile

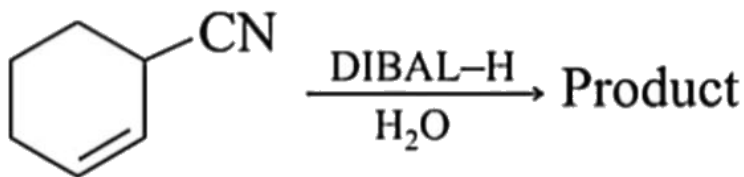
B. 5-bromo-3-(3-cynaphenyl)phenol

C. 3-(3-hydroxy-5-bromophenyl)benzonitrile

D. 3-bromo-5-(3-cyanophenyl)phenol

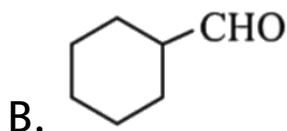
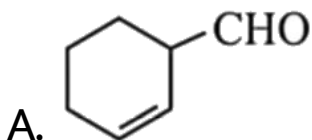
Answer: A

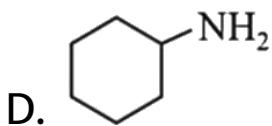
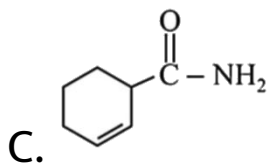
 [View Text Solution](#)



13. is :-

is





Answer: A

 [View Text Solution](#)

14. The unit cell of lithium is body centred cube. If the edge length of cube is 350 pm, the atomic radius of Li is

A. 101.8pm

B. 122.4 pm

C. 135.2 pm

D. 151.6pm

Answer: D



View Text Solution

15. Which of the following is correct match for separation?

A.

	Column-I	Column-II
(1) (A)	Two solids which have different solubilities in a solvent	(a) Crystallisation

B.

	Column-I	Column-II
(2) (B)	Steam volatile liquid	(b) Simple distillation

C.

	Column-I	Column-II
(3) (C)	Two liquid have large difference in boiling point	(c) Fractional distillation

D.

	Column-I	Column-II
(4) (D)	Two liquid which have boiling points close to each other	(d) Steam distillation

Answer: A



View Text Solution

16. Find the pair of species which have same percentage of carbon.

A. CH_3COOH and $C_6H_{12}O_6$

B. CH_3COOH and C_2H_5OH

C. $HCOOCH_3$ and $C_{12}H_{22}O_{11}$

D. $C_6H_{12}O_6$ and $C_{12}H_{22}O_{11}$

Answer: A



View Text Solution

17. 2 mole $H_2(g)$ present in 8L of container. If pressure exerted by gas is 1 bar then mean square speed of molecule will be

A. $1.2 \times 10^6 m^2 / s^2$

B. $6 \times 10^5 m^2 / s^2$

C. $2 \times 10^5 m^2 / s^2$

D. $3 \times 10^6 m^2 / s^2$

Answer: B



View Text Solution

18. The electronic configuration of calcium ion (Ca^{2+}) is

A. $1s^2, 2s^2 2p^6, 3s^2 3p^6, 4s^2$

B. $1s^2, 2s^2 2p^6, 3s^2 3p^6, 4s^0$

C. $1s^2, 2s^2 2p^6, 3s^2 3p^6, 3d^2$

D. $1s^2, 2s^2, 2p^6, 3s^2 3p^6, 3d^5$

Answer: B



[View Text Solution](#)

19. For reaction $A + 3B \rightarrow 2C + D$ which one of the following is not correct?

A. Rate of disappearance of A = rate of formation of D

B. Rate of formation of $C = \frac{2}{3} \times$ Rate of disappearance of B

C. Rate of formation of $D = \frac{1}{3} \times$ Rate of disappearance of B

D. Rate of disappearance of $A = 2 \times$ Rate of formation of C

Answer: D



View Text Solution

20. 200cm^3 of $0.1\text{M}\text{H}_2\text{SO}_4$ is mixed with 150cm^3 of 0.2 M KOH . Find the value of evolved heat.

A. 1.7kj

B. 2.7kj

C. 9.2kj

D. 3.2kj

Answer: A



View Text Solution

21. Palladium(II) tends to form complexes with a coordination number of 4. One such compound was originally formulated as $PdCl_2 \cdot 3NH_3$ suppose an aqueous solution of the compound is treated with excess $AgNO_3(aq)$, how many moles of $AgCl(s)$ are formed per mole of $PdCl_2 \cdot 3NH_3$?



[View Text Solution](#)

22. The number of pi bonds in Cl_2O_7 are

 [View Text Solution](#)

23. In order of oxidise a mixture containing one mole of each of FeC_2O_4 , $FeSO_4$ and $Fe(NO_2)_3$ is acidic medium, the number of moles of $KMnO_4$ required is

 [View Text Solution](#)

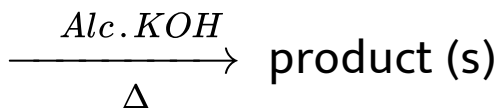
24. Total number of chiral carbons in

$\beta - D - (+) -$ glucose?



[View Text Solution](#)

25. 3-Chloro-3-cyclopentylhexane

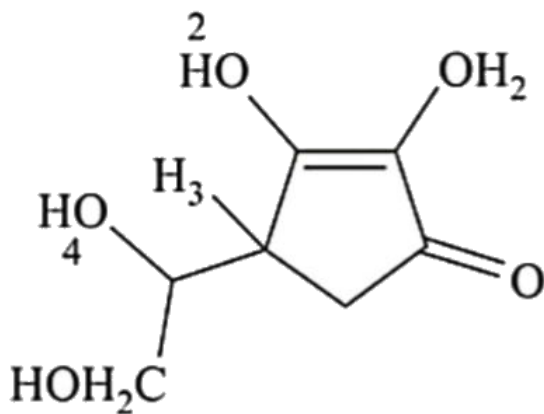


The number of possible product (s) in the above reaction is?



[View Text Solution](#)

26. Which hydrogen will be the first one in the descending order of acidity out of the marked H in the structure?



[View Text Solution](#)

27. Total number of non narcotic analgesics from the following is

Morphine, ibuprofen, naproxen, codeine, heroin, novalgin, marijuana, methyl salicylate, paracetamol



[View Text Solution](#)

28. m_m° for NaCl, HCl and NaA are 126.4, respectively. 425.9 and $100.5 \text{ cm}^2 \text{ mol}^{-1}$ If the conductivity of

0.001MHA is $5 \times 10^{-5} S\text{cm}^{-1}$ percent

degree of dissociation of HA is

 [View Text Solution](#)

29. Assume the solubility of $PbCl_2$ in water is $S\text{molL}^{-1}$ and its solubility product is K_{sp} .

The relation between K_{sp} and S is represented

as $S = \sqrt[3]{\frac{K_{sp}}{x}}$. The value of x is

 [View Text Solution](#)

30. In $H_2P_2O_7$ what is the oxidation number of P?



[View Text Solution](#)