CHEMISTRY

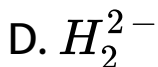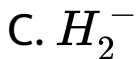# BOOKS - KUMAR PRAKASHAN KENDRA CHEMISTRY (GUJRATI ENGLISH)

QUESTION ASKED IN JEE -2018

Mcq

1. According to molecular orbital theory, which of the following will not be a viable molecule?
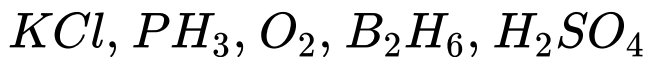
A. He_2^{2+}

B. He_2^+

C. H_2^-

D. H_2^{2-}

Answer: D

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2. Which of the following compounds contain(s) no covalent bond(s) ?

KCl, PH_3, O_2, B_2H_6, H_2SO_4

A. KCl, B_2H_6

B. KCl, H_2SO_4

C. KCl

D. KCl, B_2H_6

Answer: C

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3. Total number of lone pair of electrons in I_3^- ion is :

A. 3

B. 6

C. 9

D. 12

Answer: C

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4. The combustion of benzene (l) gives $CO_2(g)$ and $H_2O(l)$. Given that heat of combustion of benzene at constant volume is

$-3263.9 kJmol^{-1}$ at $25°C$, heat of combustion (in $kJmol^{-1}$) of benzene at constant pressure will be

A. 4152.6

B. 452.46

C. 3260

D. -3267.6

Answer: D

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5. Which of the following lines correctly show the temperature dependence of equilibrium constant, K, for an exothermic reaction ?

A. A and B

B. B and C

C. C and D

D. A and D

Answer: A

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6. An aqueous solution contains 0.10 M H_2S and 0.20 M HCl. If the equilibrium constants for the formation of HS^- from H_2S is 1.0×10^{-7} and that of S^{2-} from HS^- ions is 1.2×10^{-13} then the concentration of S^{2-} ions in aqueous solution is :

    A. 5×10^{-8}

    B. 3×10^{-20}

    C. 6×10^{-21}

    D. 5×10^{-19}

Answer: B

7. An aqueous solution an unknown concentration of Ba^{2+} , When 50 mL of a 1 M solution of Na, S0, is added, $BaSO_4$, just begins to precipitate. The final volume is 500 mL. The solubility product of $BaSO_4$ is 1×10^{-10} . What is the original concentration of Ba^{2+}

A. $5 \times 10^{-9} M$
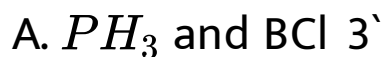
B. $2 \times 10^{-9} M$

C. $1.1 \times 10^{-9} M$

D. $1.0 \times 10^{-10} M$

Answer: C

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8. Which of the following are lewis acids ?

A. PH_3 and BCl_3`

B. $AlCl_3$ and $SiCl_4$

C. PH_3 and $SiCl_4$

D. BCl_3 and $AlCl_3$

Answer: D

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9. Which of the following salts is the most basic in aqueous solution?

A. $Al(CN)_3$

B. CH_3COOK

C. $FeCl_3$

D. $Pb(CH_3COO)_2$

Answer: B

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10. An alkali is titrated against an acid with methyl orange as indicator, which of the following is a correct combination ?

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