Date Planned : __ / __ / __	Daily Tutorial Sheet-1	Expected Duration : 45 Min
Actual Date of Attempt : __ / __ / __	JEE Main Archive	Exact Duration :_____

1. The correct match between items of List-I and List-II is : **(2000)**

List-I		List-I	
(A)	Coloured impurity	**(P)**	Steam distillation
(B)	Mixture of o-nitrophenol and p-nitrophenol	**(Q)**	Fractional distillation
(C)	Crude Naphtha	**(R)**	Charcoal treatment
(D)	Mixture of glycerol and sugars	**(S)**	Distillation under reduced pressure

(A) (A)-(R), (B)-(S), (C)-(P), (D)-(Q) **(B)** (A)-(R), (B)-(P), (C)-(S), (D)-(Q)

(C) (A)-(R), (B)-(P), (C)-(Q), (D)-(S) **(D)** (A)-(P), (B)-(S), (C)-(R), (D)-(Q)

2. Which of the following hydrocarbons has the lowest dipole moment ? **(2002)**

(A) cis-2-butene **(B)** 2-butyne

(C) 1-butyne **(D)** $H_2C = CH - C \equiv CH$

3. Which of the following will have meso-isomer also ? **(2003)**

(A) 2-chlorobutane **(B)** 2-hydroxypropanoic acid

(C) 2, 3-dichloropentane **(D)** 2, 3-dichlorobutane

4. Which type of isomerism is shown by 2,3-dichlorobutane ? **(2003)**

(A) Diastereomerism **(B)** Optical **(C)** Geometrical **(D)** Structural

5. Among the following, the molecule with the highest dipole moment is : **(2003)**

(A) CH_3Cl **(B)** CH_2Cl_2 **(C)** $CHCl_3$ **(D)** CCl_4

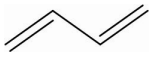
6. Which of the following compound is not chiral ? **(2004)**

(A) 1-chloropentane **(B)** 3-chloro-2-methylpentane

(C) 1-chloro-2-methylpentane **(D)** 2-chloropentane

7. Which of the following represent the given mode of hybridization $sp^2 - sp^2 - sp - sp$ from left to right? **(2004)**

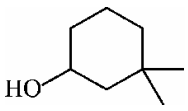
(A) $H_2C = CH - C \equiv N$ **(B)** $HC \equiv C - C \equiv CH$

(C) $H_2C = C = C = CH_2$ **(D)** 

8. Which one of the following does not have sp^2 hybridized carbon ? **(2004)**

(A) Acetone **(B)** Acetamide **(C)** Acetonitrile **(D)** Acetic acid

9. The IUPAC name of the compound : **(2004)**



(A) 3, 3-dimethyl-1-hydroxycyclohexane

(B) 1, 1-dimethyl-3-cyclohexanol

(C) 3, 3-dimethyl-1-cyclohexanol

(D) 1, 1-dimethyl-3-hydroxy cyclohexane

10. The compound formed in the positive test for nitrogen with the Lassaigne solution of an organic compound is : **(2004)**

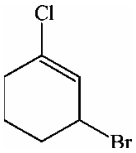
(A) $Fe_4[Fe(CN)_6]_3$ **(B)** $Fe_4[Fe(CN)_5 NOS]$

(C) $Fe(CN)_3$ **(D)** $Na_3[Fe(CN)_6]$

11. The ammonia evolved from the treatment of 0.30 g of an organic compound for the estimation of nitrogen was passed in 100 mL of 0.1 M sulphuric acid. The excess of acid required 20 mL of 0.5 M sodium hydroxide solution for complete neutralization. The organic compound is : **(2004)**

(A) acetamide **(B)** thiourea **(C)** urea **(D)** benzamide

12. The IUPAC name of the compound shown below is : **(2005)**



(A) 2-bromo-6-chlorocyclohex-1-ene

(B) 6-bromo-2-chlorocyclohexene

(C) 3-bromo-1-chlorocyclohexene

(D) 1-bromo-3-chlorocyclohexene

13. For which of the following parameters the structural isomers C_2H_5OH and CH_3OCH_3 would be expected to have the same values ? (Assume ideal behaviour) **(2005)**

(A) Heat of vaporization

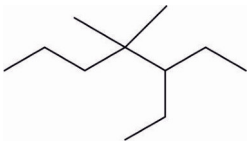
(B) Gaseous densities at the same temperature and pressure

(C) Boiling points

(D) Vapour pressure at the same temperature

14. An organic compound having molecular mass 60 is found to contain C = 20%, H = 6.67% and N = 46.67% while rest is oxygen. On heating it gives NH_3 along with a solid residue. The solid residue give violet colour with alkaline copper sulphate solution. The compound is : **(2005)**

(A) CH_3NCO **(B)** CH_3CONH_2 **(C)** $(NH_2)_2CO$ **(D)** $CH_3CH_2CONH_2$

15. The IUPAC name of  is : **(2006)**

(A) 1, 1-diethyl-2,2-dimethylpentane **(B)** 4, 4-dimethyl-5, 5-diethylpentane

(C) 5, 5-diethyl-4, 4-dimethylpentane **(D)** 3-ethyl-4, 4-dimethylheptane