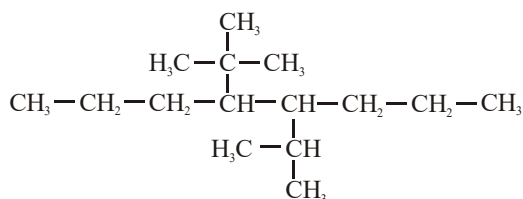


81. The hybrid state of C-atoms which are attached to a single bond with each other in the following structure are :
- $$\text{CH}_2 = \text{CH} - \text{C} \equiv \text{CH}$$
- (1) sp^2, sp (2) sp^3, sp (3) sp^2, sp^2 (4) sp^2, sp^3
82. The group of heterocyclic compound is :
- (1) Phenol, Furane (2) Furane, Thiophene
(3) Thiophene, Phenol (4) Furane, Aniline
83. The IUPAC name of the compound $\text{CH}_3 - \text{CH} = \underset{\text{CH}_2 - \text{CH}_3}{\text{C}} - \text{CH}_3$ is :
- (1) 2-Ethyl-2-butene (2) 3-Ethyl-2-butene
(3) 3-Ethyl-2-butene (4) 3-methyl-2-pentene
84. IUPAC name of $\text{CH}_2 = \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{C} \equiv \text{CH}$ is :
- (1) 1, 4-Hexenyne
(2) Hex-1-ene-5-yne
(3) 1-Hexyne-5-ene
(4) 1, 5-Hexyne
85. What is not true about homologous series ?
- (1) All the members have similar chemical properties
(2) They have identical physical properties
(3) They can be represented by a general formula
(4) Adjacent members differ in molecular mass by 14

SECTION -B

86. Which of the following is a heterocyclic compound
- (1) $\begin{array}{c} \text{HC}=\text{CH} \\ | \\ \text{HC}=\text{CH} \end{array} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{S}$ (2) $\begin{array}{c} \text{HC}=\text{COOH} \\ | \\ \text{HC}=\text{COOH} \end{array}$
- (3) $\begin{array}{c} \text{HC}=\text{CH} \\ | \\ \text{HC}=\text{CH} \end{array} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{CH}_2$ (4) $\begin{array}{c} \text{HC}=\text{CH} \\ | \\ \text{HC}=\text{CH} \end{array} \begin{array}{l} \diagup \\ \diagdown \end{array} \text{C}=\text{O}$
87. Give the IUPAC name of



- (1) 4-isopropyl-5-ter. butyl octane (2) 4-butyl-5-isopropyl octane
(3) 2-methyl-3-propyl-4-ter. butyl heptane (4) 2, 2-dimethyl-3-propyl-4-isopropyl heptane
88. The IUPAC name of given compound is :-
- $$\text{CH}_3\text{CH}=\underset{\text{COOH}}{\text{C}}-\text{CHC}_2\text{H}_5$$
- (1) 3-Carboxy-2-pentene
(2) 2-Ethylidene butanoic acid

- (3) 2-Ethyl-2-butenoic acid
(4) 3-Ethyl-2-buten-4-oic acid
89. The number of primary, secondary and tertiary carbon atom in toluene is given by the set :
(1) 1, 6, 0 (2) 1, 0, 0 (3) 2, 5, 0 (4) 1, 6, 1
90. The IUPAC name of the compound Glycerine $\begin{array}{c} \text{CH}_2 - \text{CH} - \text{CH}_2 \\ | \quad | \quad | \\ \text{OH} \quad \text{OH} \quad \text{OH} \end{array}$
(1) 1, 2, 3-Tri hydroxy propane (2) 3-Hydroxy pentane-1, 5-diol
(3) 1, 2, 3-Hydroxy propane (4) Propane-1,2,3-triol