

Topic : IUPAC Nomenclature & Isomerism
Type of Questions

- Single choice Objective ('-1' negative marking) Q.1 to Q.4
 Multiple choice objective ('-1' negative marking) Q.5 to Q.6
 Subjective Questions ('-1' negative marking) Q.7
 Comprehension ('-1' negative marking) Q.8

(3 marks, 3 min.)
 (4 marks, 4 min.)
 (4 marks, 5 min.)
 (3 marks, 3 min.)

M.M., Min.

[12, 12]

[8, 8]

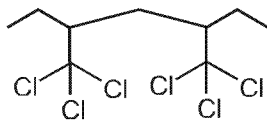
[4, 5]

[3, 3]

1. The correct IUPAC name of $\text{H}_3\text{C}-\overset{\text{Br}}{\underset{\text{F}}{\text{C}}}-\underset{\text{C}_2\text{H}_5}{\text{CH}}-\overset{\text{Br}}{\underset{\text{I}}{\text{C}}}-\text{CH}_3$

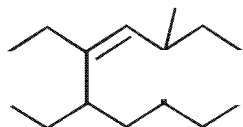
- (A) 2,4-Dibromo-3-ethyl-2-fluoro-4-iodopentane (B) 2,4-Dibromo-3-ethyl-4-fluoro-2-iodopentane
 (C) 2,4-Dibromo-4-fluoro-2-iodo-3-ethylpentane (D) 2,4-Dibromo-2-fluoro-4-iodo-3-ethylpentane

2. The correct IUPAC name of the following compound is :



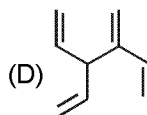
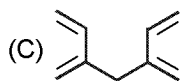
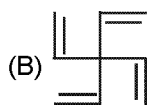
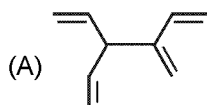
- (A) 1,1,1,5,5,5-Hexachloro-2,4-diethylpentane. (B) 3,5-Hexachlorodimethylheptane.
 (C) 3,3,3,5,5,5-Hexachloromethylheptane. (D) 3,5-Bis(trichloromethyl)heptane.

3. The correct IUPAC name of the following compound is :



- (A) 5,6-Diethyl-8-methyldec-6-ene (B) 5,6-Diethyl-3-methyloct-4-ene
 (C) 5,6-Diethyl-3-methyldec-4-ene (D) 2,4,5-Triethylnon-3-ene

4. Diethenyl pentadiene is :



- 5.* Which IUPAC name is **correct** :

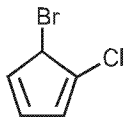
- (A) $\text{CH}_3-\underset{\text{C}_2\text{H}_5}{\text{CH}}=\underset{\text{C}_2\text{H}_5}{\text{CH}}-\text{CH}_3$ 2,3-Diethylbutene

- (B) $\text{HC}\equiv\text{C}-\underset{\text{HC}=\text{CH}_2}{\text{CH}}-\text{CH}=\text{CH}_2$ 3-Ethynylpenta-1, 4-diene

- (C) $\text{HC}\equiv\text{C}-\text{CH}=\text{CH}_2$ Butenyne

- (D) $\text{CH}_3-\text{CH}=\text{CH}-\text{C}\equiv\text{CH}$ Pent-3-en-1-yne

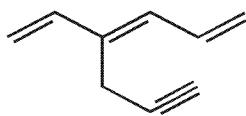
- 6.* Which of the given is/are correct IUPAC names :
- (A) 2,3-Dichlorocyclohex-1-ene (B) 2,5-Dimethyloct-4-ene
(C) 4-Bromo-1-chloropentane (D) 6-Ethyl-2,3-dimethylnonane
7. Write the sum of locant in the following compound is:



8. **Comprehension #**

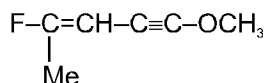
While naming unsaturated hydrocarbons, lowest locant is allotted for multiple bond than any substituent, since the priority of multiple bond is more than any substituent present. When the locant for unsaturated is same from either side then double bond is given priority over triple bond. For main chain selection if the size of main chain and number of unsaturation are equal, then priority is given to the lowest set of locants for unsaturation.

(a) IUPAC name of the following compound is



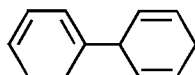
- (A) 3-(Prop-2-ynl)hexe-1,3,5-triene
(B) 4-Ethenylhepta-1, 3-dien-6-yne
(C) 4-Ethenylhexa-4, 6-dien-1-yne
(D) 4-(Prop-2-ynyl) hexa-1,3,5-triene

(b) IUPAC name of the following compound is



- (A) 4-Fluoro-1-methoxypent-1-yn-4-ene
(B) 1-Fluoro-1-methyl-4-methoxybut-1-en-3-yne
(C) 4-Fluoro-1-methoxypent-3-en-1-yne
(D) 2-Fluro-5-methoxypent-2-en-4-yne

(c) IUPAC name of the following compound is



- (A) 3-(cyclohexa-1, 3-dienyl)cyclohexa-1,4-diene
(B) 4-(cyclohexa-2, 5-dienyl)cyclohexa-1,3-diene
(C) 2-(cyclohexa-1, 3-dienyl)cyclohexa-1,3-diene
(D) 1-(cyclohexa-2, 5-dienyl)cyclohexa-1,3-diene

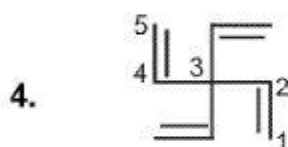
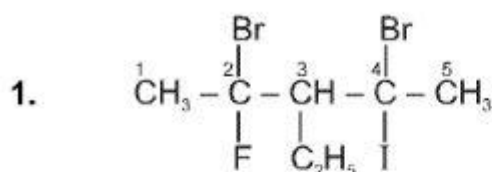
Answer Key

DPP No. # 4

- | | | | | | | | |
|----|---------|-----|---------|-----|-----|----|-----|
| 1. | (A) | 2. | (D) | 3. | (C) | 4. | (B) |
| 5. | (B,C,D) | 6. | (B,C,D) | 7. | 6 | | |
| 8. | (a) (B) | (b) | (C) | (c) | (D) | | |

Hints & Solutions

DPP No. # 4



Diethenyl pentadiene

