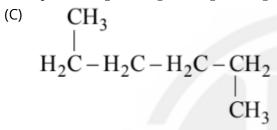
**DHA: 04** 

## **UDAAN 2026**

# Chemistry **Carbon and Its Compounds**

**Q1** Which of the following is not a straight chain hydrocarbon?

(B) 
$$H_3C - CH_2 - CH_2 - CH_2 - CH_2 - CH_3$$



$$(D)$$
  $CH_3$   $CH-CH_2-CH_2-CH_3$ 

Q2 Which among the following are unsaturated hydrocarbons?

(i) 
$$H_3C-CH_2-CH_2-CH_3$$

(ii) 
$$H_3C-C\equiv C-CH_3$$

(iii)

(iv)

$$H_3C - C = CH_2$$

$$CH_3$$

- (A) (i) and (iii)
- (B) (ii) and (iii)
- (C) (ii) and (iv)
- (D) (iii) and (iv)
- **Q3** Which among the following is the correct chemical formula of pentyl?
  - $(A) CH_3$
- (B)  $-C_5H_{12}$
- $(C) C_{\perp} H_{0}$
- (D)  $-C_5H_{11}$
- Q4 The name of the compound

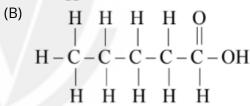
$$CH_3-CH_2-CHO$$
 is:

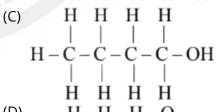
- (A) Propanal
- (B) Propanone

- (C) Ethanol
- (D) Ethanal
- **Q5** The heteroatoms present in

$$CH_3-CH_2-O-CH_2-CH_2Cl$$
 are:

- (i) oxygen
- (ii) carbon
- (iii) hydrogen
- (iv) chlorine
- (B) (ii) and (iii)
- (A) (i) and (ii) (C) (iii) and (iv)
- (D) (i) and (iv)
- Q6 The correct structural formula of butanoic acid





- **Q7** In which of the following compounds, —OH is the functional group?
  - (A) Butanone
- (B) Butanol
- (C) Butanoic acid
- (D) Butanal

**Q8** What will be the IUPAC name of the compound below?

$$\begin{array}{c|c} H & H \\ | & | \\ H - C - C - C \equiv C - H \\ | & | \\ H & H \end{array}$$

(A) But-2-yne

(B) But-1-yne

(C) But-3-yne

(D) But-1-ene



# **Answer Key**

Q1 D

Q2 C

Q3 D

Q4 Α Q5 D

Q6 D

Q7 B

Q8 В



## **Hints & Solutions**

Note: scan the QR code to watch video solution

#### Q1 Text Solution:

If any C in the chain is connected to more than two carbon atoms, it is not considered as a straight-chain hydrocarbon.

(D) is not a straight-chain hydrocarbon.

#### **Video Solution:**



### **Q2** Text Solution:

(ii) and (iv) are unsaturated hydrocarbons.

#### **Video Solution:**



#### Q3 Text Solution:

C<sub>5</sub>H<sub>11</sub> is the correct chemical formula of pentyl.

#### **Video Solution:**



#### **Q4** Text Solution:

The name of the compound is propanal.

#### **Video Solution:**



#### Q5 Text Solution:

Heteroatoms are atoms other than carbon and hydrogen in an organic molecule.

In CH<sub>3</sub>-CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>CI, the heteroatoms are:

(i) oxygen (O)

(iv) chlorine (CI)

#### **Video Solution:**



#### Q6 Text Solution:

(D) is the correct structural formula of butanoic acid.

#### **Video Solution:**



#### Q7 Text Solution:

The -OH group is the functional group of

Among the options, Butanol is an alcohol.

#### **Video Solution:**



### **Q8** Text Solution:

The triple bond is at the first carbon from the right end in a 4-carbon chain but-1-yne.







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