

Chapter 12

Aldehydes, Ketones and Carboxylic Acids

(Assertion and Reason Questions)

Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.

- (a) If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
- (b) If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
- (c) If the Assertion is correct but Reason is incorrect.
- (d) If both the Assertion and Reason are incorrect.

Q.1. Assertion : The boiling points of aldehydes and ketones are higher than hydrocarbons and ethers of comparable molecular masses.

Reason : There is a weak molecular association in aldehydes and ketones arising out of the dipole-dipole interactions.

Q.2. Assertion : Formaldehyde is a planar molecule.

Reason : It contains sp^2 hybridised carbon atom.

Q.3. Assertion : Compounds containing $-CHO$ group are easily oxidised to corresponding carboxylic acids.

Reason : Carboxylic acids can be reduced to alcohols by treatment with $LiAlH_4$

-X-X-X-

ANSWER KEY

Q.1 : (a)

Q.2 : (a)

Q.3 : (b)