

QB365 Question Paper Software
11th Standard - Chemistry
Organic Chemistry - Some Basic Principles and Techniques
Assertion and reason

Exam Time: 00:20 Hrs

Date: 2025-10-11

Total Marks: 10

Questions:

Assertion and reason

1. **Assertion:** is 3-methyl butanoic acid.

Reason: In poly functional group, the substituent should be given lower number than the principal functional group.

Codes:

- A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
- B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
- C) If assertion is true but reason is false.
- D) If the assertion and reason both are false.
- E) If assertion is false but reason is true.

2. **Assertion:** Methylene has a sextet of electrons.

Reason: Methylene behaves as a nucleophile.

Codes:

- A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
- B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
- C) If assertion is true but reason is false.
- D) If the assertion and reason both are false.
- E) If assertion is false but reason is true.

3. **Assertion:** Mixture of o-nitrophenol and p-nitrophenol can be separated by steam distillation.

Reason: p-nitrophenol is steam volatile while o-nitrophenol is not steam volatile.

Codes:

- A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
- B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
- C) If assertion is true but reason is false.
- D) If the assertion and reason both are false.
- E) If assertion is false but reason is true.

4. **Assertion:** Sulphur present in an organic compound can be estimated quantitatively by Carius method.

Reason: Sulphur is separated easily from other atoms in the molecule and gets precipitated as light yellow solid.

Codes:

- A) If both assertion and reason are true and the reason is the correct explanation of the

assertion.

B) If both assertion and reason are true but reason is not the correct explanation of the assertion.

C) If assertion is true but reason is false.

D) If the assertion and reason both are false.

E) If assertion is false but reason is true.

5. **Assertion:** Pent-1-ene and pent-2-ene are position isomers.

Reason: Position isomers differ in the position of functional group or a substituent.

Codes:

A) If both assertion and reason are true and the reason is the correct explanation of the assertion.

B) If both assertion and reason are true but reason is not the correct explanation of the assertion.

C) If assertion is true but reason is false.

D) If the assertion and reason both are false.

E) If assertion is false but reason is true.

6. **Assertion:** Carbon shows the property of catenation.

Reason: Carbon atom possesses a unique property to link together to form very long chains.

Codes:

a) Both A and R are true, and R is the correct explanation of A.

b) Both A and R are true, and R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true

7. **Assertion:** Diethyl ether and Methyl propyl ether are isomers of each other.

Reason: Compounds having molecular formula but different structural formula.

Codes:

a) Both A and R are true, and R is the correct explanation of A.

b) Both A and R are true, and R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true

8. **Assertion:** Shape of ethyne is linear and it shows triple covalent bond.

Reason: Ethyne is heavier than air and its boiling point is +75 degree Celsius.

Codes:

a) Both A and R are true, and R is the correct explanation of A.

b) Both A and R are true, and R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true

9. **Assertion:** Ethyl alcohol is called as spirit of wine and it is obtained from starchy grain.

Reason: Cracking of petroleum is a source of ethane, which is used in preparation of alcohol.

Codes:

a) Both A and R are true, and R is the correct explanation of A.

b) Both A and R are true, and R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true

10. **Assertion:** Ethene is used for ripening of fruits.

Reason: Ethanol is used to make polyethylene.

Codes:

- a) Both A and R are true, and R is the correct explanation of A.
- b) Both A and R are true, and R is not the correct explanation of A.
- c) A is true but R is false.
- d) A is false but R is true

Answers Key:

Assertion and reason

- 1. B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
- 2. C) If assertion is true but reason is false.
- 3. C) If assertion is true but reason is false.
- 4. E) If assertion is false but reason is true.
- 5. A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
- 6. a) Both A and R are true, and R is the correct explanation of A.
- 7. a) Both A and R are true, and R is the correct explanation of A.
- 8. c) A is true but R is false.
- 9. b) Both A and R are true, and R is not the correct explanation of A.
- 10. c) A is true but R is false.