

**QB365 Question Paper Software**  
**12th Standard - Biology**  
**Sexual Reproduction in Flowering Plants Assertion and reason**

Exam Time: 00:20 Hrs

Date: 2025-09-27

Total Marks: 10

**Questions:**

1. **Assertion:** Perisperm is protective covering of seed and helps in dispersal and nutrition.

**Reason:** Pericarp is covering of fruit which is non-functional.

**Codes :**

- (a) Both assertion and reason are true and reason is the correct explanation of assertion
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion
- (c) Assertion is true but reason is false
- (d) Both assertion and reason are false

2. **Assertion:** Nucellus functions as a nutritive tissue.

**Reason:** Nucellus is always exhausted completely during development of embryo sac.

**Codes:**

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Both assertion and reason are false

3. **Assertion:** Allogamy includes both geitonogamy and xenogamy.

**Reason:** Allogamy needs abiotic or biotic external agencies for pollination

**Codes:**

- (a) Both assertion and reason are true and reason is the correct explanation of assertion.
- (b) Both assertion and reason are true but reason is not the correct explanation of assertion.
- (c) Assertion is true but reason is false.
- (d) Both assertion and reason are false

4. **Assertion (A) :** Pollen grain of angiosperm is considered as the male gametophyte.

**Reason (R) :** Pollen grain contains stigma, style and ovary.

- (a) If both A and R are true and R is correct explanation of A
- (b) If both A and R are true, but R is not the correct explanation of A
- (c) If A is true, but R is false
- (b) If A is false, but R is true

5. The diagram given below shows a phenomenon known as epihydrophily (Pollination occurring over the water surface). Refer to the given diagram and comment upon the appropriateness of Assertion and Reason.



**Assertion (A) :**Hydrophily is an uncommon mode of pollination exhibited by aquatic plants.

**Reason (R) :** Pollens are distributed through water bodies to other plants.

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

6.**Assertion :** Insects visit flower to gather honey.

**Reason :** Attraction of flowers prevents the insects from damaging other parts of the plant.

**Codes:**

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

7.**Assertion (A):** On the Morning of 14th July 1789, the city of Paris was in a State of alarm.

**Reason (R):** Some 7,000 men and women gathered in front of the town hall and decided to form a people's Militia.

**Codes:**

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (C) (A) is correct but (R) is wrong.
- (D) (A) is wrong but (R) is correct.

8.**Assertion (A):** The revolutionary wars brought losses and economic difficulties to the people.

**Reason (R):** While the men were away fighting at the front, women were left to cope with the tasks of earning a living and looking after their families.

**Codes:**

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
- (C) (A) is correct but (R) is wrong.
- (D) (A) is wrong but (R) is correct.

9.**Assertion (A) :** Helobial endosperm is intermediate of cellular and nucleartypes.

**Reason (R) :** It is common in dicot and monocot.

**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) Both (A) and (R) are false

10. **Assertion (A):** Hybrid seeds have to be produced every year because seeds collected from hybrid plants, if sown subsequently, do not maintain hybrid-characters.

**Reason (R) :** These seeds show segregation of traits.

**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) Both (A) and (R) are false

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**Answers Key:**

1. (d) Perisperm is unused nucellus in the seed. It is often non-functional for seed. Pericarp is the covering of fruit that develops from ovary wall. It is protective covering and also helps in dispersal and nutrition.
2. (c) The body of the ovule consists of a mass of parenchymatous cells named nucellus. The nucellus is mostly consumed by the developing embryo sac or endosperm. But in some plants it persists in the mature seed as a nutritive tissue. The persistent nucellus is called perisperm.
3. (b) Cross pollination is the transfer of pollen grains from the anther of one flower to the stigma of another flower, i.e., allogamy. Cross pollination is further classified depending on whether the pollination has occurred between two flowers on the same plant (geitonogamy) or between two flowers on different plants (xenogamy). Cross pollination (allogamy) is performed with the help of an external agency. The latter may be abiotic (e.g., wind, water) or biotic (e.g., insects, birds, bats, snails).
4. (c) If A is true, but R is false
5. (b) If both A and R are true, but R is not the correct explanation of A
6. (d) If both Assertion and Reason are false.

**Explanation:**

Honey bee visit flowers to gather nectar and turn it into honey. Visiting of insects for nectar helps in pollination.

7. (B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
8. (A) Both (A) and (R) are true and (R) is the correct explanation of (A).
9. C) (A) is true but (R) is false
10. C) (A) is true but (R) is false