

Chapter – 1 | SEXUAL REPRODUCTION IN FLOWERING

PLANTS

QUIZ-01

1. A typical angiosperm anther is usually:

- A. Monolobed and monosporangiate
- B. Bilobed and tetrasporangiate
- C. Trilobed and bisporangiate
- D. Unilobed and dithecous (B)

Explanation: A typical angiosperm anther is bilobed, dithecous and has four microsporangia.

2. The innermost wall layer of microsporangium is:

- A. Epidermis
- B. Endothecium
- C. Middle layer
- D. Tapetum (D)

Explanation: Tapetum nourishes the developing pollen grains.

3. The outer hard layer of pollen grain is made up of:

- A. Cellulose
- B. Pectin
- C. Sporopollenin
- D. Lignin (C)

Explanation: Exine is made of sporopollenin, which is highly resistant to heat, acids and alkalis.

4. In most angiosperms, a mature embryo sac is:

- A. 6-celled and 8-nucleate
- B. 7-celled and 8-nucleate
- C. 8-celled and 7-nucleate
- D. 7-celled and 7-nucleate (B)

Explanation: The mature female gametophyte has 7 cells but 8 nuclei.

5. Transfer of pollen grains from anther to stigma of another flower of the same plant is called:

- A. Autogamy
- B. Xenogamy
- C. Geitonogamy
- D. Cleistogamy (C)

Explanation: Geitonogamy occurs between two flowers of the same plant.

6. Which pollination type brings genetically different pollen grains to the stigma?

- A. Autogamy
- B. Geitonogamy
- C. Xenogamy
- D. Cleistogamy (C)

Explanation: Xenogamy occurs between flowers of different plants of the same species.

7. Self-incompatibility prevents:

- A. Pollen formation
- B. Seed germination
- C. Self-pollen fertilising the ovule
- D. Formation of ovules (C)

Explanation: It is a genetic mechanism that rejects self-pollen by inhibiting pollen germination or pollen tube growth.

8. Double fertilisation includes:

- A. Syngamy and triple fusion
- B. Autogamy and geitonogamy
- C. Megasporogenesis and microsporogenesis
- D. Pollination and germination (A)

Explanation: One male gamete fuses with the egg, while the other fuses with two polar nuclei.

9. In angiosperms, the ovary develops into:

- A. Seed
- B. Embryo
- C. Fruit
- D. Endosperm (C)

Explanation: After fertilisation, ovules become seeds and the ovary becomes fruit.

10. Formation of seeds without fertilisation is called:

- A. Parthenocarp
- B. Apomixis
- C. Polyembryony
- D. Syngamy (B)

Explanation: Apomixis is a form of asexual reproduction that mimics sexual reproduction by producing seeds without fertilisation.