

## Chapter No. 02 Sexual Reproduction in Flowering Plants

1. How many microspore mother cells are required to produce 1000 microspores/pollen grains?

- (a) 100
  - (b) 150
  - (c) 200
  - (d) 250
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2. Which of the following represents the female gametophyte in angiosperms?

- (a) Embryo
  - (b) Embryo sac
  - (c) Synergid
  - (d) Endosperm
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3. In a breeding experiment, the selected male parent is diploid and the female parent is tetraploid. What will be the ploidy level of the endosperm that will develop after double fertilisation?

- (a) Diploid
  - (b) Triploid
  - (c) Tetraploid
  - (d) Pentaploid
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4. The development of fruits without fertilisation of the ovary, is called

- (a) parthenogenesis
  - (b) parthenocarpy
  - (c) agamospermy
  - (d) apomixis
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5. When the pollen of a flower is transferred to the stigma of another flower on the same plant, the process is known as

- (a) autogamy
  - (b) geitonogamy
  - (c) xenogamy
  - (d) cleistogamy
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6. The number of meiotic divisions, required to produce 400 seeds in a pea plant, is

- (a) 100
  - (b) 200
  - (c) 400
  - (d) 500
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7. A dicotyledonous plant bears flowers but never produces fruits and seeds. The most probable cause for the above situation is

- (a) plant is dioecious and bears only pistillate flowers.
  - (b) plant is dioecious and bears both pistillate and staminate flowers.
  - (c) plant is monoecious.
  - (d) plant is dioecious and bears only staminate flowers.
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8. Autogamy can occur in a chasmogamous flower if

- (a) pollen matures before maturity of ovule.
  - (b) ovules mature before maturity of pollen.
  - (c) both pollen and ovules mature simultaneously.
  - (d) both anther and stigma are of equal lengths.
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9. Choose the correct statement from the following.

- (a) Cleistogamous flowers always exhibit autogamy.
  - (b) Chasmogamous flowers always exhibit geitonogamy.
  - (c) Cleistogamous flowers exhibit both autogamy and geitonogamy.
  - (d) Chasmogamous flowers never exhibit autogamy.
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10. From among the situations given below, choose the one that prevents both autogamy and geitonogamy.

- (a) Monoecious plant bearing unisexual flowers.
  - (b) Dioecious plant bearing only male or female flowers.
  - (c) Monoecious plant with bisexual flowers.
  - (d) Dioecious plant with bisexual flowers.
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11. In a fertilised embryo sac, the haploid, diploid and triploid structures are: (a) Synergid, zygote and primary endosperm nucleus.

- (b) Synergid, antipodal and polar nuclei.
  - (c) Antipodal, synergid and primary endosperm nucleus.
  - (d) Synergid, polar nuclei and zygote.
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12. In an embryo sac, the cells that degenerate after fertilisation are:

- (a) Synergids and primary endosperm cell.
  - (b) Synergids and antipodals.
  - (c) Antipodals and primary endosperm cell.
  - (d) Egg and antipodals.
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13. Which of the following floral parts forms the pericarp after fertilisation?

- (a) Nucellus

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(b) Outer integument

(c) Ovary wall

(d) Inner integument

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14. The stalk of the ovule is called \_\_\_\_\_ .

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15. The outer integument of the ovule develops into \_\_\_\_\_ after fertilisation.

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16. The exine of pollen grains is made up of \_\_\_\_\_ .

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17. The outermost layer of endosperm in a maize grain is known as \_\_\_\_\_ .

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18. A bisexual flower that never opens, is called \_\_\_\_\_ .

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19. In the grass family, the single cotyledon is called \_\_\_\_\_ .

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20. The hollow foliar structure that encloses the leaf primordia in a grass embryo, is called \_\_\_\_\_ .

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