## Sexual Reproduction in flowering plant - I (DPP)

1. Male gametophyte of angiosperms is reduced to
(a) One cell (b) Two cells (c) Three cells (d) Four cells.

Ans. (c)

Sol. The male gametophyte finally consists of two male gametes and a vegetative cell

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2. Fore-runner of male gamete is
(a) Megasporangium (b) Antipodal cell (c) Embryo sac
(d) Microspore mother cell.

Ans. (d)

Sol. Microspore mother cell undergoes meiosis to produce microspores, mitosis in them forms gametes

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3. Hay fever is caused by plants having
(a) Entomophily (b) Cheiropterophily (c) Malacophily (d) Anemophily

Ans. (d)

Sol. Wind pollinated pollen behaves as allergen.

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4. What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in its root tip cells?
(a) 21 (b) 42 (c) 63 (d) 84

Ans. (c)

Sol. 2N = 42 hence 3N = 42/2×3 = 63

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5. A Diploid male angiospermic plant is crossed with tetraploid female plant. Endosperm of seed will be
(a) Haploid (b) Triploid (c) Tetraploid (d) Pentaploid.

Ans. (d)

Sol. N (male gamete) + 2N (Polar nucleus) + 2N (polar nucleus) = 5N

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6. Number of meiotic divisions required to produce 200 seeds of Pea would be
(a) 200 (b) 400 (c) 300 (d) 250

Ans. (d)

Sol. For 200 seeds 200 male gametes (50 divisions) and 200 female gametes (200 divisions).

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7. When the ovule is curved more or less at right angle to funicle and mycropylar end is bend down slightly the type of ovule is
(a) Anatropous (b) Campylotropous (c) Hemianatropous (d) Circinotropous

Ans. (b)

Sol. When the ovule is at right angle to the funicle but micropyle is not bend it is called hemianatropous
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8. What is incorrect for pollination of the *Ophrys*?
   (a) Pollination is done by *Colpa* wasp
   (b) It is called pseudocopulation mechanism
   (c) Female wasp lays eggs inside the ovary of flower
   (d) The orchid employs sexual deceit to get pollinated

Ans. (c)
Sol. Female wasp does not visit the flower.
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9. A stamen is regarded as a
   (a) Microsporophyll (b) Megasporophyll (c) Microsporangium (d) Megasporangium

Ans. (a)
Sol. It bears microsporangia.
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10. Development of anther in angiosperms is
   (a) Leptosporangiate (b) Eusporangiate (c) Gradate (d) Simple

Ans. (b)
Sol. The sporangia develops from a group of cell initials.
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11. Pro-ubisch bodies appear in cytoplasm of
   (a) Endothecium (b) Middle layers (c) Tapetum (d) Epidermis

Ans. (c)
Sol. The ubisch bodies help in forming sporopollenin.
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12. Fibrous bands present in endothecium of anther wall is made up of
   (a) Sporopollenin (b) ⟨-Cellulose (c) Pectin (d) Lignin

Ans. (b)
Sol. These help in dehiscence.
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13. The exine of pollen grains (microspores) is composed of
   (a) Pollen kitt (b) a-cellulose (c) Sporopollenin (d) Lignin

Ans. (c)
Sol. Sporopollenin gives hardy nature to pollen.
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14. The number of germ pores in dicots and monocots pollen grains are respectively
   (a) 1, 3 (b) 2, 3 (c) 3, 1 (d) 3, 2

Ans. (c)

Sol. Dicots are tricolpate while monocots are monocolpate.
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15. Pollen tube is produced by
(a) Exine (b) Intine (c) Both exine and intine (d) Generative cell
Ans. (b)
Sol. It is pectocellulosic in nature.
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16. Number of male gametes in one pollen tube is
(a) 1 (b) 2 (c) 4 (d) 6
Ans. (b)
Sol. The generative cell under goes mitosis to produced two male gametes.
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17. Even after killing the generative cell with a laser beam the pollen grain of a flowering plant germinates and produces normal pollen tube because
(a) Laser beam stimulates pollen germination and pollen tube growth
(b) The vegetative cell has not been damaged
(c) The contents of killed generative cell permit germination and pollen tube growth
(d) The laser beam does not damage the region from which pollen tube emerges
Ans. (b)
Sol. The generative cell produces male gametes while vegetative cell help to produce pollen tube.
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18. Which of the following is/are omithophilous?
(a) Erythrina (b) Bombax (c) Grevillea (d) All of these
Ans. (d)
Sol. The are pollinated by birds.
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19. Maturation of gynoecium before anthers of the same flower is called
(a) Protogyny (b) Protandry (c) Heterogamy (d) Dichogamy
Ans. (a)
Sol. It helps in cross pollination.
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20. Which is not a contrivance for self pollination?
(a) Homogamy (b) Bud pollination (c) Cleistogamy (d) Dichogamy
Ans. (d)
Sol. Dichogamy is maturation of sex organs at different times.
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21. Which is generally not a characteristic of anemophilous flower?
(a) Unisexual nature (b) Abundant pollen grains
(c) Bright coloured (d) Reduction in no. of sepals, petals and ovules

Ans. (c)

Sol. Anemophilous flower are wind pollinated.

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22. A characteristic of entomophilous pollen grains is presence of
(a) Powdery nature (b) Sticky pollen kitt material
(c) Carotenoids (d) Ubisch bodies

Ans. (b)

Sol. This coating on pollen makes it sticky.

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23. When some natural barriers exist between the stamens and pistil to check self pollination, it is known as
(a) Heterostyly (b) Herkogamy (c) Dichogamy (d) Dicliny

Ans. (c)

Sol. It promotes cross pollination

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24. When the pollen tube enters the embryo sac. one of the following is always destroyed
(a) Antipodal (b) Egg (c) Synergid (d) Polar nucleus

Ans. (c)

Sol. This helps to create space for pollen tube inclusions

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25. Ovules are also called
(a) Megasporophyll (b) Integumented megasporangia
(c) Seeds (d) Nucellus

Ans. (b)

Sol. These develop on megasporophylls (carpels)

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26. How many megaspore mother cells are required to produce 100 eggs during meiosis?
(a) 1 (b) 100 (c) 50 (d) 25

Ans. (b)

Sol. Out of four megaspores produced in each meiosis three degenerate.

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27. The fusion of second male gamete with secondary nucleus is called
(a) Double fertilization (b) Triple fusion (c) Syngamy (d) Triple fertilization

Ans. (b)

Sol. It gives rise to triploid PEN.

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28. Egg apparatus is situated at____end and is composed of_____cells
(a) Micropylar, 2 (b) Chalazal, 3 (c) Micropylar, 3 (d) Chalazal, 2

Ans. (c)

Sol. It consists of excel egg cell and two synergids.

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29. Phenomenon of double fertilization was discovered by

(a) Strasberger (b) P. Maheshwari (c) Amici (d) Nawaschin

Ans. (d)

Sol. It was discovered in *Lilium* and *Frittalaria.*

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30. Ploidy level of endosperm in angiosperm is generally

(a) n (b) 2n (c) 3n (d) 6n

Ans. (c)

Sol. It gives arises from triploid PEN.

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