Sexual Reproduction in Flowering Plants

CHAPTER 2

TRY YOURSELF

ANSWERS

1. If perianth is not differentiated into calyx and corolla, it is called perigonium.

2. Androecium and gynoecium are the essential floral parts of a flower.

3. Endothecium is also called fibrous layer.

4. Tapetum produces lipid rich Ubisch granules.

5. In *Aristolochia elegans* all five types of tetrad have been recorded.

6. The microspore mother cell is a diploid cell in plants that divides by meiosis and give rise to four microspore.

7. Pollen grains retain the ability to germinate for certain period known as pollen viability.

8. The study of external morphology of mature pollen grains is called palynology.

9. Generative cell and vegetative cell are formed after first mitotic division in pollen grain.

10. Germ pore of pollen grain absorbs water and nutrients from the stigmatic secretion.

11. Chalaza is the site of the origin of integuments.

12. Hilum is the point of attachment of the body of ovule with funiculus.

13. Three free nuclear mitotic division occur in typical megaspore.

14. Embryo-sac developed from a single megaspore is called monosporic embryo sac.

15. 8 nuclei in the female gametophyte in angiosperms are surrounded by cell wall.

16. Synergids of the embryo sac help in obtaining nourishment from the outer nucellar cells.

17. In pea and wheat, bud pollination occurs.

18. In *Mirabilis*, the bending of filaments brings the ripe anthers in contact with stigma and thus homogamy occurs.

19. *Aristolochia* traps dipteran flies for pollination.

20. In *Bombax* (red silk cotton), *Erythrina* (coral tree) and *Callistemon* (bottle brush) ornithophily occurs.

21. No, pollen grains of different species cannot grow on stigma of a single flower.

22. Pollen grains absorb water and nutrients from stigma of pistil.

23. *Casuarina* shows chalazogamy.

24. Porogamy, *i.e.*, the mode of penetration through micropyle of ovule is the most common method of penetration of pollen into ovule.

25. Hypocotyl is the portion of embryonal axis between cotyledonary node and radicle.

26. Plumule and radicle are the terminal ends of epicotyl and hypocotyl, respectively.

27. Free nuclear endosperm and cellular endosperm are represented by milk of tender coconut and white coconut meal respectively.

28. Helobial type of endosperm is found in *Asphodelus*.

29. Seeds lose their viability generally due to:
(i) Exhaustion of food around the embryo,
(ii) Damage to embryo,
(iii) Denaturation of enzymes,
(iv) Premature exhaustion of RNAs

30. Integument (outer and inner) is the layer of ovule which transforms into seed coats.

31. Banana and navel orange

32. Grapevine

33. Adventive embryony is the development of embryo directly from a diploid cell other than egg like that of nucellus and integument, *e.g., Citrus, Opuntia*.

34. In *Allium odorum*, 5 embryos develop from different methods-one from zygote,one from synergid, two from antipodal cell and one from integument of ovule.

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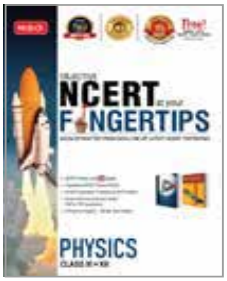

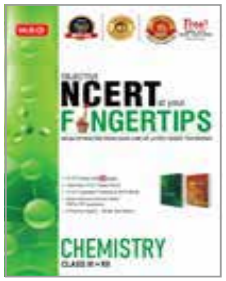

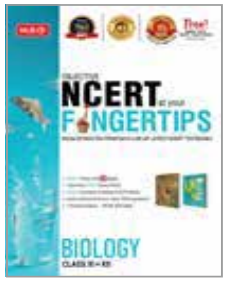

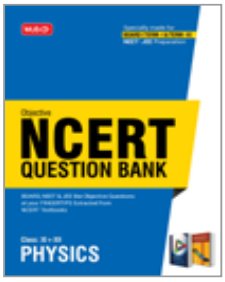

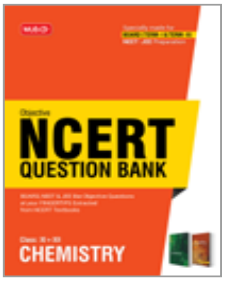

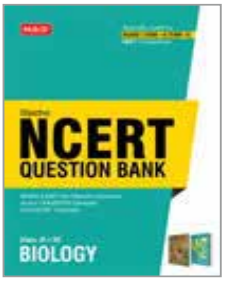

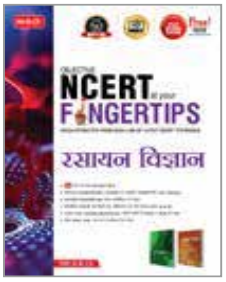

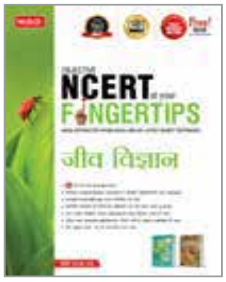

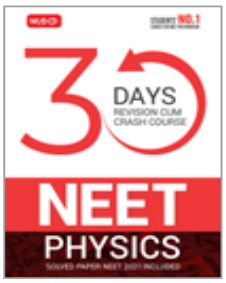

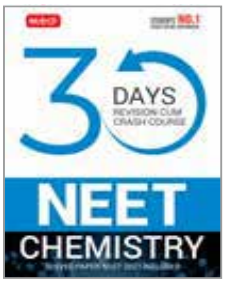

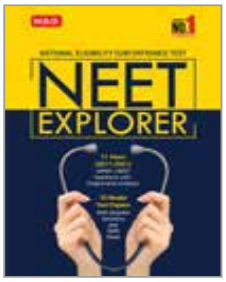

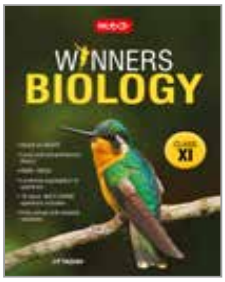

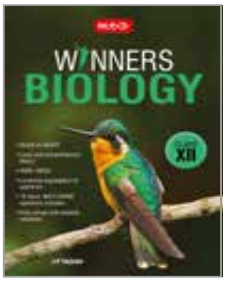

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