



Chapter 1: Sexual Reproduction in Flowering Plants

QUICK REVISION: ONE-LINER QUESTIONS AND ANSWERS

1. What is the reproductive part of a flowering plant? **- The flower.**
2. What is the male part of a flower called? **- The Androecium.**
3. The androecium is made of what units? **- Stamens.**
4. A stamen has which two parts? **- The anther and the filament.**
5. What part of the anther makes pollen? **The microsporangium (or pollen sac).**
6. What is the ploidy of a microspore mother cell? **Diploid (2n).**
7. How do microspore mother cells form microspores? **Through meiosis.**
8. What is the ploidy of a pollen grain? **Diploid (n).**
9. What is the hard outer layer of pollen? **The exine.**
10. What tough material makes the exine? **Sporopollenin.**
11. What is the thin inner layer of pollen? **The intine.**
12. Name the two cells in a mature pollen grain. **The vegetative cell and generative cell.**
13. Which pollen cell is larger? **The vegetative cell.**
14. Which pollen cell forms the two male gametes? **The vegetative cell.**
15. What is the female part of a flower called? **- The generative cell.**
16. A pistil has which three parts? **- The Gynoecium (or pistil).**
17. Which part of the pistil catches pollen? **- The stigma.**
18. What structure is found inside the ovary? **- The ovule.**
19. After fertilization, what does the ovule become? **- The seed.**
20. What sac inside the ovule holds the egg cell? **The embryo sac.**
21. What is the ploidy of a megasporangium? **Diploid (2n).**
22. Meiosis of a megasporangium produces how many megasporangia? **Four.**
23. How many of the four megasporangia usually survive? **Only one.**
24. A typical embryo sac has how many cells and nuclei? **7 cells, 8 nuclei.**
25. Name the three cells at the micropylar end. **One egg cell and two synergids.**
26. What do we call the egg cell and its two synergids? **The egg apparatus.**
27. Name the three cells at the opposite (chalazal) end. **The antipodal cells.**
28. What is the large cell in the middle of the embryo sac? **The central cell.**
29. What two nuclei are in the central cell? **The polar nuclei.**
30. What is the transfer of pollen to a stigma called? **Pollination.**
31. Pollination within the same flower is called what? **Autogamy.**
32. Pollination between flowers on the same plant is called what? **Geitonogamy.**
33. Pollination between flowers on different plants is called what? **Xenogamy.**
34. What is pollination by wind called? **Anemophily.**
35. What is pollination by insects called? **Entomophily.**
36. What is pollination by water called? **Hydrophily.**
37. Can the male gametes in flowering plants swim? **No, they are non-motile.**
38. What tube grows from the pollen grain to the ovule? **The pollen tube.**
39. How many male gametes does the pollen tube deliver? **Two.**