

CLASS XII
REPRODUCTIVE HEALTH

1. Where is sporopollenin present in plants? State its significance with respect to its chemical Nature. 1
2. Normally one embryo develops in one seed but when an orange seed is squeezed many embryos of different shapes and sizes are seen. Mention how it has happened. 1
3. Name the part of the flower which the tassels of the corn-cob represent. 1
4. Name the type of flower which favours cross pollination. 1
5. Why is bagging of the emasculated flowers essential during hybridization experiments? 1
6. The meiocyte of rice has 24 chromosomes. How many chromosomes are present in its endosperm? 1
7. Why is a coconut plant referred to as monoecious? 1
8. A bilobed, dithecous anther has 100 microspore mother cells per microsporangium. How many male gametophytes this anther can produce? 1
9. Differentiate between albuminous and non-albuminous seeds, giving one example of each. 1
10. Why is geitonogamy also referred to as genetical autogamy? 1
11. The flower of brinjal is referred to as chasmogamous while that of beans is cleistogamous. How are they different from each other? 2
12. Banana is a parthenocarpic fruit whereas oranges show polyembryony. How are they different from each other with respect to seeds. 2
13. Draw a vertical section of a maize grain and label i) pericarp ii) scutellum c) coleoptile and iv) radicle. 2

14. Write the difference between the tender coconut water and the thick, white kernel of a mature coconut and their ploidy. 2
15. i) Write the characteristic features of anther, pollen and stigma of wind pollinated flowers.
ii) How do flowers reward their insect pollinators? Explain. 2
16. Draw a longitudinal section of post pollinated pistil showing entry of pollen tube into a mature embryo-sac. Label filiform apparatus, chalazal end, hilum, antipodals, male gametes and secondary nucleus. 3
17. Make a list of any three outbreeding devices that flowering plants have developed and explain how they help to encourage cross-pollination. 3
18. Why are angiosperm anthers called dithecal? Describe the structure of its Microsporangium. 3
19. Draw a diagram of a male gametophyte of an angiosperm. Label any four parts. Briefly describe its structure. 5
20. How does the megaspore mother cell develop into 7-celled, 8-nucleated embryo sac in an angiosperm? Draw labeled diagram of a mature embryo sac. 5
21. a) Explain the different ways apomictic seeds can develop. Give an example of each.
(b) Mention one advantage of apomictic seeds to farmers.
(c) Draw a labelled mature stage of a dicotyledonous embryo. 5