

Class XII 2021-22

Holiday Homework (Biology) – Chapters 1-5

I. Define the following:

- a) Life span b) Meiocyte c) Polyembryony d) Parturition
e) Test cross f) Parthenocarpy g) Parthenogenesis h) Apomixis

II. Answer the following questions:

1. Differentiate between zoospore and zygote.
2. Name two main pre fertilization events.
3. What is microsporogenesis? Explain briefly.
4. What is megasporogenesis? Explain the process.
5. Explain double fertilization in angiosperms.
6. Write the contrivances for cross pollination.
7. Explain pollen-pistil interaction.
8. Differentiate between chasmogamous & cleistogamous flowers.
9. Why is apple called a false fruit?
10. State the function of filiform apparatus found in mature embryo sac of an angiosperm.
11. Differentiate between coleoptile and coleorhiza.
12. Give the schematic representation of spermatogenesis in human males.
13. Explain the process of Oogenesis in human females.
14. What is LH surge? Write its significance.
15. How is placenta formed in human females? Write its functions.
16. What is lactational amenorrhea?
17. Explain sterilization (surgical) methods of birth control.
18. Explain law of dominance with example.
19. What is incomplete dominance? Illustrate it with an example (showing the cross up to F_2 generation).
20. Who proposed chromosomal theory of inheritance?
21. Explain XO, XY and haplodiploid type of sex determination with an example each.

22. Write the cause and symptoms of Down's syndrome.

III. Diagrams to draw & label:

- a) T.S. of young anther.
- b) A diagrammatic view of mature anatropous angiospermic ovule.
- c) Mature pollen grain.
- d) Structure of a sperm.