DPP
DAILY PRACTICE PROBLEMS

Class : XIIth **Subject : BIOLOGY**
Date : **DPP No. : 4**

Topic :- Sexual Reproduction in Flowering Plants

1. If stem has $2n = 10$ number of chromosomes than find out
   A – number of chromosomes in endosperm
   B – number of chromosomes in egg cell
   C – number of chromosomes in polar nuclei
   a) 15, 15, 20 b) 10, 15, 20 c) 15, 5, 10 d) 10, 5, 15

2. I. Antipodal cell II. Egg cell
   III. Synergid cell IV. Polar nuclei
   V. Male gamete VI. Nuclear cell
   IV. Chalazal cell
   Out of the seven names given above, find out haploid cells
   a) I, II, IV, V b) II, IV, VI, VII c) I, II, III, V d) II, IV, III, I

3. There are 10 flowers in one individual plant of *crotalaria*. In each microsporangium of every stamen of all the flowers, there are 30 microspore mother cells. How many pollen grains are formed from that plant?
   a) 4,000 b) 10,000 c) 24,000 d) 48,000

4. Apomictic embryos in *Citrus* arise from
   a) Synergids b) Maternal sporophytic tissue in ovule
   c) Antipodal cells d) Diploid egg

5. Chances of pollination in air and water are increased by increasing number of pollens. This statement is
   a) True b) False
   c) Sometimes (a) and sometimes (b) d) Neither (a) nor (b)

6. Micropyle is formed by
   a) Absence of integuments
   b) Absence of funicle
   c) Absence of nucellus
   d) Absence of embryo sac

7. In a flowering plants, megaspore develops into an embryo sac, which contains
   a) 4 cells, one of which is an egg b) 6 cells, one of which is an egg
   c) 8 cells, one of which is an egg d) None of the above

8. What does the filiform apparatus do at the entrance into ovule?
   a) It helps in the entry of pollen tube into a synergid
   b) It prevents entry of more than one pollen tube into the embryo sac
   c) It brings about opening of the pollen tube
   d) It guides pollen tube from a synergid to egg

9. Function of aleurone layer is to
   a) Prepare amylase
   b) Prepare proteinase
   c) Prepare peptidase
   d) Prepare food

10. Pollination by bats is called
    a) Anemophily
    b) Hydrophily
    c) Ornithophily
    d) None of these

11. Which one of the following is not a device to promote cross-pollination?
    a) Cleistogamy
    b) Heterostyly
    c) Herkogamy
    d) Dichogamy

12. Which cell is bigger and have abundant food reserve material during microsporogenesis?
    a) Generative cell
    b) Vegetative cell
    c) Vacuole
    d) Spore mother cell

13. In artificial hybridization the steps involved are
    I. Bagging
    II. Emasculation
    III. Rebagging
    Their right arrangement is
    a) I → II → III
    b) II → I → III
    c) III → II → I
    d) II → III → I

14. In some plants, anthers and stigmas grow and mature at same time. This phenomenon is called
    a) Homogamy
    b) Syngamy
    c) Allogamy
    d) Fusion

15. Double fertilization is fusion of
    a) Two eggs
    b) Two eggs and polar nuclei
    c) One male gamete with egg and other with synergid
    d) One male gamete with egg and other with secondary nucleus

16. How many nuclei are found in female gametophyte?
    a) 8
    b) 7
    c) 6
    d) 5

17. An ovule is a
    a) Differentiated megasporangium
    b) Dedifferentiated megasporangium
    c) Integumented megasporangium
    d) Redifferentiated megasporangium

18. Nuclear endosperm has
    a) Every nuclear division followed by wall formation
    b) Initially free-nuclear divisions followed by wall formation
    c) First division followed by wall formation and other free nuclear
    d) None of the above

19. A typical angiosperm embryo sac at maturity, is
    a) 4 – nucleate, 2 – celled
    b) 8 – nucleate, 7 – celled
    c) 4 – nucleate, 4 – celled
    d) 8– nucleate,4 – celled

20. Device to discourage self-pollination or increase cross-pollination is
    a) Pollen release and stigma receptivity are not synchronized
    b) Anther and stigma placed at different position
    c) Same height of stamen and stigma
    d) Both (a) and (b)