

Model Question Paper
Reproduction in Plants (B) - Part II

10th Standard

Science

Reg.No. :

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I. Answer all the questions.

II. Use Blue pen only.

Time : 01:15:00 Hrs

Total Marks : 45

6 x 1 = 6

Section-A

- 1) Pick out the wrong statement.
(a) In a dicot seed there is a short longitudinal whitish ridge called the raphae. (b) The minute opening in a dicot seed is known as micropyle.
(c) The rudimentary stem portion is known as radicle. (d) The rudimentary root portion is called radicle.
- 2) Consider the following statements regarding the dispersal of fruits and seeds by wind and select the correct answer.
(a) Fruits and seeds are dispersed with a sudden jerk by an explosive mechanism. (b) The fruits of tridax carry a persistent calyx modified into pappus.
(c) The fruits of xanthium have sharp pointed stiff hooks. (d) The mesocarp of coconut is fibrous.
- 3) The product of triple fusion which acts as nutritive tissue for the development of an embryo is _____
(a) zygote (b) placenta (c) scutellum (d) endosperm
- 4) The disadvantage of self-pollination is _____.
(a) There is no wastage of pollen grains. (b) The seeds are less in number. (c) Self-pollination is sure in bisexual flowers.
(d) Flowers need not depend on agents of pollination.
- 5) The flower is important to a plant because it helps in _____.
(a) attracting (b) production of nectar (c) pollination (d) sexual reproduction
- 6) The essential organs of the flower are _____.
(a) Calyx and Corolla (b) Androecium and Gynoecium (c) Calyx and Androecium (d) Corolla and Gynoecium

Section-B

5 x 2 = 10

- 7) Name the events (i) & (ii) and mention the nature of the nuclear structures formed at the end in the following cases: (i) male gamete (n) + egg (n) = Zygote (2n) (ii) male gamete (n) + secondary nucleus (2n) = Endosperm nucleus (3n).
- 8) Differentiate dehiscent fruits and indehiscent fruits with suitable examples.
- 9) What are monocotyledons and dicotyledons? Give examples.
- 10) Give suitable terms for the following methods of seed / fruit dispersal, with one example each: (i) by wind (ii) by water (iii) by animals.
- 11) Give any two examples for each of the following cases where dispersal of fruits and seeds take place : (i) by birds (through excreta) (ii) by human beings

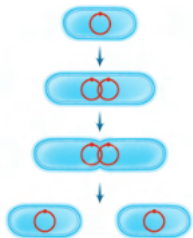
Section-C

5 x 5 = 25

- 12) Describe the structure of a monocot seed.
- 13) Observe the given diagram: i) Draw the diagram and label the parts. ii) What happens to the parts labelled 'E' and 'F', after the process of fertilization?



- 14) Look at the diagram given below:



Answer the following: i) Name the method of reproduction depicted here. ii) Name an organism in which you find this method of reproduction. iii) Does this method of reproduction favour variation?

- 15) Imagine you have a garden with the plants listed below. A swarm of bees visit your garden. Do you think the bees will visit all the flowers? Name the flowers which you think the bees will be attracted to. Give reasons to substantiate your answer. (Jasmine, Nerium, Gulmohar, Rose, Lotus, Corn, Sugarcane, Bamboo, Chrysanthemum, Dahlia, Grass, Coconut and Peas)
- 16) A farmer has two fields A and B. He cultivates peas (*Pisum sativum*) in both the fields. Field A is covered with nets to keep out birds and insects. Field B is left uncovered. i) Name the type of pollination that would occur in field 'A' and field 'B' ii) Which of these fields will give a higher yield? iii) To raise the next crop, from which field should the seeds be chosen by the farmer. Give reason to support your answer
