

**Model Question Paper**  
**Reproduction in Plants (B) - Part III**

10th Standard

**Science**

Reg.No. : 

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I. Answer all the questions.

II. Use Blue pen only.

Time : 01:00:00 Hrs

Total Marks : 50

5 x 1 = 5

**Section-A**

- 1) Anemophily occurs in \_\_\_\_\_ .  
(a) Vallisneria (b) Grass (c) Coconut (d) Datura
- 2) Which of the following structure / arrangement favours entomophily ?  
(a) Pollen grains with wings and feathery stigma (b) Colourful petals and nectar secretion (c) A bunch of flowers with less pollen  
(d) Pollen grains with mucous covering.
- 3) Post-fertilization, the ovule changes into a/an \_\_\_\_\_ .  
(a) seed (b) fruit (c) endosperm (d) pericarp.
- 4) Which of the following is correctly matched?  
(a) False fruit – mango (b) Multiple fruit – apple (c) Aggregate fruit – polyalthia (d) Caryopsis – banana
- 5) Identify the mismatched pair.  
(a) Legume – Dry dehiscent fruit (b) Cypselas – Dry indehiscent fruit (c) Pome – Fleshy fruit (d) Regma – Resembles legume

**Section-B**

6 x 2 = 12

- 6) Define fertilization.
- 7) Name the agents of pollination in the following cases: i) Bright coloured flowers with scent and nectar glands. ii) No colour / scent/ nectar but pollen grains are dry, light weight and powdery. Stigma is feathery. Also mention the plants in cases (i) & (ii).
- 8) i) Composite fruits are formed by all the flowers of \_\_\_\_\_, ii) \_\_\_\_\_ fruit is developed from a single flower with a multicarpellary apocarpous superior ovary.
- 9) Match the following with respect to dispersal of fruits / seeds:

a) Autochory	I) Lotus
b) Anemochory	II) Xanthium
c) Hydrochory	III) Tridax
d) Zoochory	IV) Balsam
- 10) Use words from the given list to complete the following paragraph. (The words may be used once / more than once / not at all). (seed, fruit, pollination, dispersal, germination, fertilization, flower, reproduction) Ramu went to the field along with his father. He sowed mustard seeds in the soil. After a few days he observed the process of \_\_\_\_\_. The seeds grew into plants and produced \_\_\_\_\_. On maturity, these flowers produced pollen grains that were transferred to the stigma by \_\_\_\_\_. The male gametes fused with the female gametes during the process of \_\_\_\_\_.
- 11) Coconut seeds are dispersed by Hydrochory (dispersal by water). Mention the part of the fruit whose modification help in this mechanism.

**Section-B**

6 x 5 = 30

- 12) Given below is a list of dry fruits. Assign the fruits to their relevant types. (Cotton, Tridax, Paddy, Castor, Coriander, Beans, Peas, Calotropis, Mirabilis, Cashew, Acacia, Lady's finger) i) Achene ii) Caryopsis iii) Cypselas iv) Nut v) Cremocarp vi) Lomentum vii) Regma viii) Loculicidal capsule ix) Septicidal capsule x) Follicle xi) Legume
- 13) Monish enters the kitchen and happens to see his mother getting the ingredients ready to prepare kadamba sambar. He sees the ingredients laid out in the kitchen. Help him sort out the ingredients into the fruit types you have studied. (dhal, tamarind, brinjal, tomato, drumstick, coriander, mustard, lady's finger, mango)
- 14) Name the parts of a dicot seed based on the given clues: i) Rudimentary root \_\_\_\_\_, ii) Rudimentary shoot \_\_\_\_\_, iii) Fleshy structure storing food for the embryo \_\_\_\_\_, iv) The outer protective layer of a seed is \_\_\_\_\_, v) The minute opening seen in the seed coat is \_\_\_\_\_.
- 15) What are the types of pollination? Which among them is more advantageous? Why?
- 16) What is self-pollination? Mention its merits and demerits.
- 17) What is known as pollination? List out biotic and abiotic factors which are involved in pollination?

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