

WORKSHEET 1

CHAPTER 4 – POLLINATION AND FERTILIZATION

A. Choose the correct option.

- Pollination by wind is known as
a. anemophily. b. hydrophily. c. entomophily. d. ornithophily.
- Maturing of anther earlier than stigma is called
a. dichogamy. b. protogyny. c. protandry. d. autogamy.
- Transfer of pollen grains from the anther to the stigma of another flower of the same plant is called
a. geitonogamy. b. karyogamy. c. autogamy. d. xenogamy.
- Wind pollination is common in
a. grasses. b. orchids. c. legumes. d. lilies.
- Pollination in *Vallisneria* occurs through
a. wind. b. water. c. insects. d. birds.

B. Fill in the blanks.

- The _____ nucleus of the pollen grain divides to form two male gametes.
- _____ provides nourishment to the developing embryo.
- Pollination by elephant is found in _____
- In _____, stigma matures earlier than the anther.
- _____ and _____ are adaptations of flower for self-pollination.

C. Match the items in Column A with those in Column B and write down the matching pairs.

Column A

- Different timing for maturation of androecium and gynoecium
- Flower with different length of style and position of anther
- Light, dry pollen and feathery stigma
- Vallisneria*
- Begonia*

Column B

- anemophily
- hydrophily
- heterostyly
- ornithophily
- dichogamy

D. State whether the following statements are True or False.

- After fertilization, ovule changes to fruit.
- Canna* is a wind pollinated flower.
- Cross-pollination preserves the parental characters.
- Pollination is the fusion of male and female gametes.
- Maize is pollinated by wind.

Name:

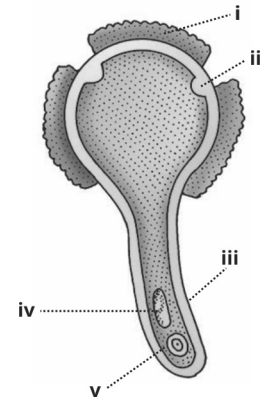
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Date:

E. Study the diagrammatic sketch of the sectional view of a plant part relating to reproduction and answer the following questions.

1. Identify the plant part.
2. Label the parts **i – v**.
3. Where would this stage be found?
4. What is the function of part **v**?
5. What happens
 - a. to the part labelled **iv** during the process?
 - b. when part **iii** reaches the embryo sac?



ANSWERS

WORKSHEET 1

A. Choose the correct option.

1. a. 2. c. 3. a. 4. a. 5. b.

B. Fill in the blanks.

1. generative
2. Endosperm
3. *Rafflesia*
4. protogyny
5. Homogamy and cleistogamy

C. Match the items in Column A with those in Column B and write down the matching pairs.

1. e. 2. c. 3. a. 4. b. 5. d.

D. State whether the following statements are True or False.

1. False 2. False 3. False 4. False 5. True

E. Study the diagrammatic sketch of the sectional view of a plant part relating to reproduction and answer the following questions.

1. Pollen grain germinating on stigma
2. i. Exine
ii. Intine
iii. Pollen tube
iv. Generative nucleus
v. Tube nucleus
3. This stage would be found on stigma after pollination.
4. Tube nucleus directs the growth of the pollen tube.
5. a. Part iv that is generative nucleus divides to form two male gametes.
b. When the pollen tube enters the embryo sac, it discharges the two male gametes into the embryo sac. One male gamete fuses with egg to form the zygote. Another male gamete fuses with the diploid secondary nucleus to form the endosperm, a food-storing tissue.