

MARK THOMA RESIDENTIAL SCHOOL, THIRUVALLA  
FIRST TERM EXAMINATION 2019-20  
BIOLOGY

MARKS: 80  
TIME: 2 Hour

Class VIII

SECTION I (40 MARKS)

(A) Name the following [5]

- (i) The embedding of the fertilised ovum in the uterus wall
- (ii) Minute pores in a leaf through which air enters the leaf and water gets evaporated through it
- (iii) Reproduction through vegetative parts such as leaf, stem and root
- (iv) Type of asexual reproduction seen in Spirogyra
- (v) The plant tissue which helps in carrying the food to different parts of a plant

(B) Choose the correct answer from each of the four options given below [5]

- (i) Raisins swell when put in
  - (a) Rain water
  - (b) Saline water
  - (c) Mustard Oil
  - (d) Saturated sugar solution
- (ii) Pollen is produced in the
  - (a) Filament
  - (b) Style
  - (c) Pistil
  - (d) Anther
- (iii) Identify the stage which is formed after the fertilisation of the egg by the sperm
  - (a) Ovule
  - (b) Foetus
  - (c) Embryo
  - (d) Zygote
- (iv) Ascent of sap in plants takes place through
  - (a) Cortex
  - (b) Epidermis
  - (c) Xylem
  - (d) Phloem
- (v) If the xylem vessels of a plant are plugged
  - (a) No food will be made
  - (b) The plant will wilt
  - (c) The leaves will turn yellow
  - (d) The plant will continue to grow

(C) In each set of terms given below, there is an odd one and cannot be grouped in the same category to which the other three belong. Identify the odd term in each set and name the category to which the remaining three belong. [5]

- (i) Ovary, Uterus, Scrotal sac, Oviduct
- (ii) Potato, Sweet potato, Carrot, Asparagus
- (iii) Potassium, Iron, Nitrogen, Phosphorus
- (iv) Stigma, Ovary, Filament, Style
- (v) Dahlia, Marigold, Vallisneria, Salvia

(D) Complete the following paragraph by filling in the blanks (i) to (v) with appropriate words. [5]

If vegetative propagation is not possible in a plant then tissue of vegetative bud shoot apex or any other suitable part of the plant can be used as an (i) for mic propagation. These are treated with (ii) to prevent microbial growth, and they are cultured in a particular (iii). Cells grow and divide to form a cell mass called (iv). Some growth regulators are added. The mass of cells differentiates into plant parts looking like a tiny plant called (v).

(E) State the exact location of the following structure [5]

- (i) Companion cells
- (ii) Cowper's gland
- (iii) Ovules
- (iv) Stigma
- (v) Uterus

(F) Write a significant difference between [5]

- (i) Unisexual and Bisexual flowers
- (ii) Egg and sperm
- (iii) Xylem and Phloem
- (iv) Sexual reproduction and asexual reproduction
- (v) Fertilisation and pollination

(G) Define the following terms [5]

- (i) Differentiation
- (ii) Gestation
- (iii) Active transport
- (iv) Semi-permeable membrane
- (v) Thalamus

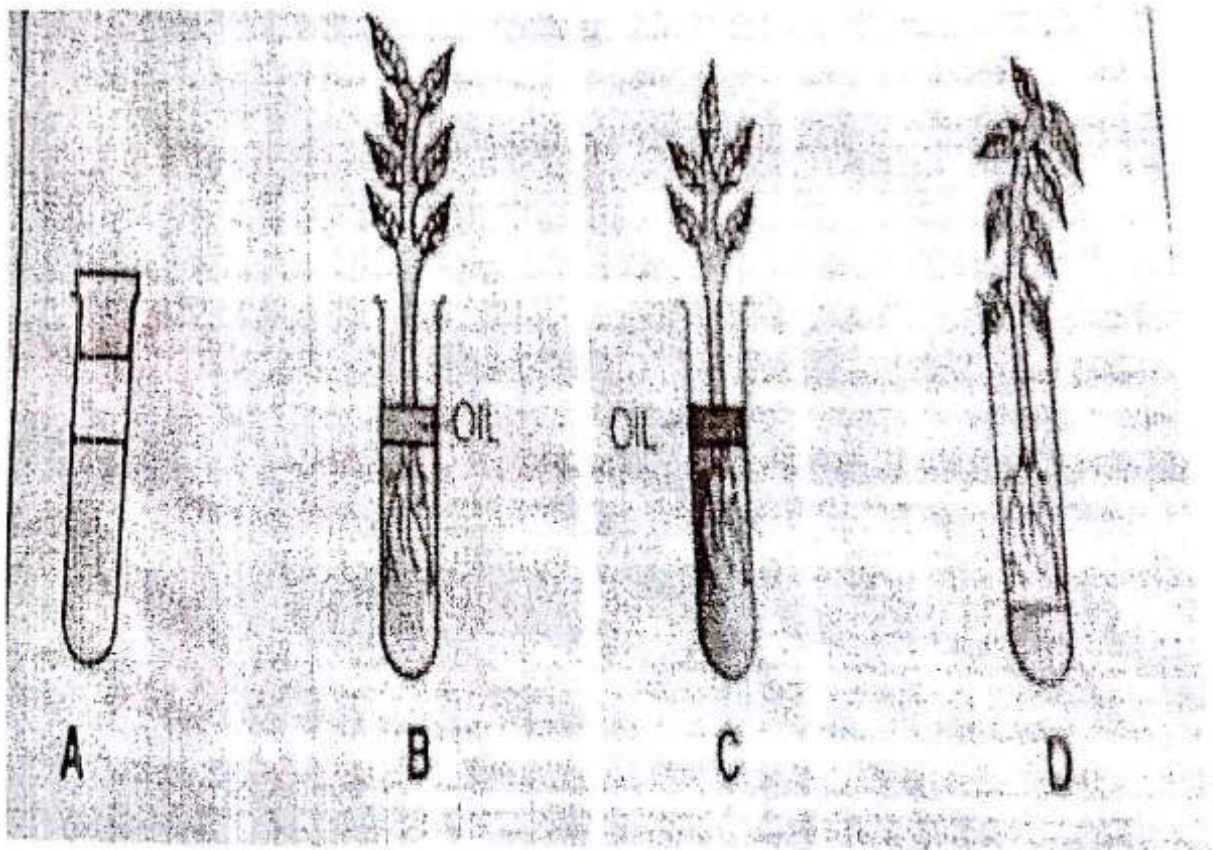
(H) Write true or false. If it is false rewrite the sentence by changing the first or last word. [5]

- (i) Water enters the root hairs by diffusion
- (ii) Corolla is the outermost part of the flower
- (iii) Lotus and Trapa are aquatic plants and are pollinated by wind
- (iv) Transpiration is more when the wind is blowing slow
- (v) A pollen grain, containing the male gametes, lands on the surface of filament

### SECTION II (40 MARKS)

#### Question 2

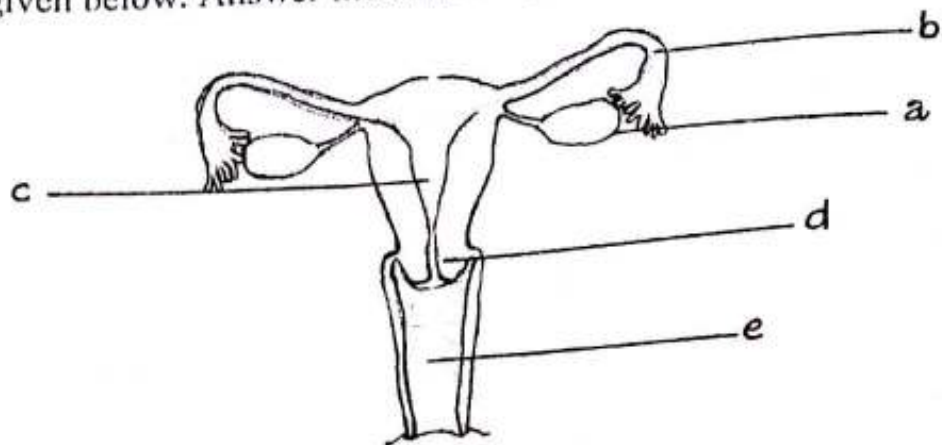
An experiment set up was shown in the figure below. Study the same and answer the following question. [5]



- a) What is the aim of this experiment?
- b) Why was there a fall in the water level of test tube B and not in that of test tube A?
- c) Why did the leaves shrivel up in test tube D?
- d) Why oil is placed over water in the test tube ?

### Question 3

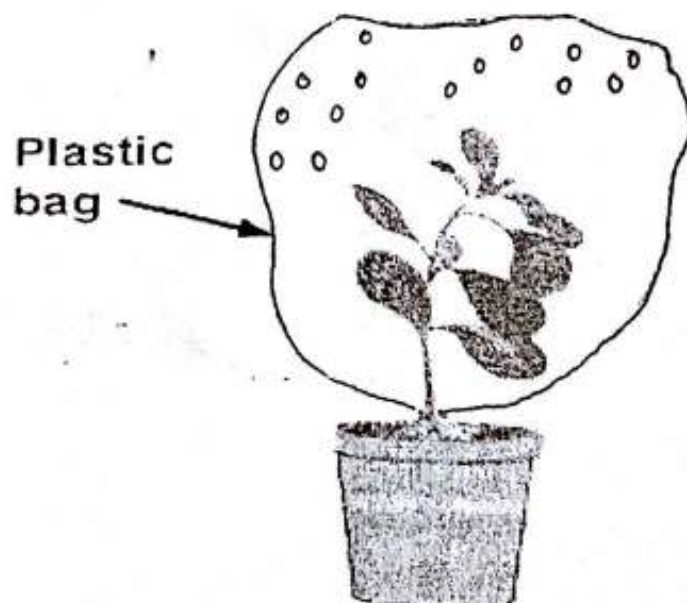
Study the diagram given below. Answer the following questions.



- Label the parts a to e
- Write the function of "a" and "c"
- Name the part where fertilisation occurs in the female reproductive system

### Question 4

The setup shown below was kept in sunlight for an hour. It was observed that drops of water appeared on the inside surface of the polythene bag.



- Name the process which is being demonstrated
- Why was the pot with its soil left uncovered by the polythene bag?
- Why was the pot left in sunlight?
- Suppose that the pot in this experiment was placed inside a dark room instead of placing it in sunlight for some time. What difference would be noticed?

### Question 5

Answer the following questions

[10]

- I) Imagine all the seeds produced by a plant happen to fall under the same plant and sprout into new plants. Mention any two problems that will be faced by the new plants.
- II) Give two features of flowers which favour pollination by insects
- III) State the reason why testes lie outside the abdomen in a scrotum?
- IV) Write two functions of xylem
- V) Why is it disadvantageous to grow plants vegetatively?

### Question 6

Draw a neat labelled diagram of following

[10]

- a) Phloem
- b) Vertical section of onion bulb
- c) Different stages of binary fission

### Question 7

[5]

Given in the box below are a set of 14 terms. Of these, 12 can be paired into six matching pairs. Out of the six pairs, one has been done for you as an example

Example: Transpiration- Leaves

Food Storage	Yeast	Sperm	Apple	Transpiration
Water	Testes	Ginger	Petals	Maize
Budding	Corolla	False fruit	Leaves	