## SUBJECTIVE QUESTIONS (30 marks)

Q.1) Explain the following terms:
a) Osmosis
d) Scavengers
b) Food chain
e) Vegetative reproduction
c) Cardiac arrest
Q.2) Give one difference between the following pairs on the basis of what is indicated in the bracket. (Answer only in tabular form)
a) Arteries and veins (direction of blood flow)
b) Xylem and Phloem (direction of conduction)
c) Cutting and layering (method of propagation)
d) Symbiosis and Parasitism (Examples)
e) Systemic and Pulmonary circulation (meaning)
Q.3) Give scientific reasons for the following:
a) There are numerous root hairs on the roots of a plant.
b) SAN is referred as the natural pacemaker of the heart.
c) Farmers prefer to grow certain crops by vegetative method.
Q.4) The figure given below represents the process of fertilisation in flowers. Observe and answer the given questions:

a) Label the parts 1 to 5 .
b) Define fertilisation.
c) Explain Double fertilisation.
Q.5) The figure below represents internal structure of the human heart.

a) Label the parts 1 and 4 . [1]
b) Name the valves 2, 3, 8 and 9 .
c) Distinguish between parts 6 and 7 .
d) State the function of part 5 .
Q.6) An apparatus as shown below was set up to investigate a physiological process in plants. The setup was kept in sunlight for two hours.

a) Define the phenomenon being studied.
b) What will you observe in the set-up and why?
c) What is the importance of this phenomenon in plants?
Q.7) Draw a neat and labelled diagram of a root hair - highly magnified.

