ASSIGNMENT CLASS XII
CHAPTER – 1 (Reproduction in Organisms)

Objective type questions

1 The terms homothallic and monoecious are used to denote

a) Unisexual condition b) Bisexual condition c) Staminate flowers d) Pistillate flowers

2. The most significant feature of vegetative propagation is that

a) It is a method of producing a large number of individuals genetically identical to the parent.
b) It is a method of producing a large number individuals genetically different from the parent.
c) It ensures that the progeny individuals are resistant to diseases and pests.
d) It is an age old practice.

3. In animals, juvenile phase is followed by

a) Reproductive phase b) Senescent phase c) Old age d) Vegetative phase

4. External fertilization occurs in majority of

a) Fungi b) Liverworts c) algae d) Mosses

5. Vegetative propagation in *Pistia* occurs by

a) Sucker b) Offset c) runner d) rhizome

6. Offspring formed by sexual reproduction exhibit more variation than those formed by asexual reproduction because

a) Sexual reproduction is a lengthy process
b) Gametes of parents have qualitatively different genetic composition
c) genetic material comes from parents of two different species
d) greater amount of DNA is involved in sexual reproduction.

7) There is no natural death in single celled organisms like *Amoeba* and bacteria because

a) they do not reproduce sexually
b) they reproduce by binary fission
c) parental body is distributed among the offspring
d) they are microscopic

8) There are various types of reproduction. The type of reproduction adopted by an organism depends on

a) the habitat and morphology of an organism

b) morphology of an organism
c) morphology and physiology of an organism
d) the organism's habitat, physiology and genetic makeup

9) Appearance of vegetative propagules from the nodes of plants such as sugarcane and ginger is mainly because
a) nodes are shorter than internodes
b) nodes have meristematic cells
c) nodes are located near the soil
d) nodes have non-photosynthetic cells

10) Gametogenesis and gamete transfer are events.

Practice Questions

Q1. Which plant is known as the terror of Bengal? Why?

Q2. Define meiocyte..

Q3. Mention the unique feature with respect to flowering and fruiting in bamboo species.

Q3. Coconut palm is monoecious and date palm is dioecious. Why are they called so?

Q4. How are Cucurbita plants different from papaya plants with reference to the flowers they bear?

Q5. A moss plant produces a large number of antherozoids but relatively only a few egg cells. Why?

Q6. Why is the knowledge of vegetative propagation important for farmers?

Q7. Why do algae and fungi shift to sexual mode of reproduction just before the onset of adverse conditions?

Q8. Provide the name of a plant that propagates through floral buds.

Q9. Mention two inherent characteristics of Amoeba and yeast that enable them to reproduce asexually.

Q10. Between an annual and a perennial plant, which one has a shorter juvenile phase? Give one reason.

Q11. Rearrange the following events of sexual reproduction in the sequence in which they occur in a flowering plant: embryogenesis, fertilization, gametogenesis, and pollination.

Q12. Honeybees produce their young ones only by sexual reproduction. In spite of this, in a colony of bees, we find both haploid and diploid individuals. Name the haploid and diploid individuals in the colony and analyze the reasons behind their formation.

Q13. In haploid organism that undergoes sexual reproduction, name the stage in the life cycle when meiosis occurs. Give reasons for your answer.

Q14. Draw the sketches of a zoospore and a conidium. Mention two dissimilarities between them and at least one feature common to both structures.

Q15. Mention the site where syngamy occurs in amphibians and reptiles respectively?

Q16. Write the modes of asexual reproduction in the following organisms.

Sycon , Penicillium, Marchantia, chlamydomonas

Q18. A male honey bee has 16 chromosomes whereas its female has 32 chromosomes. Give one reason.

Q19. In a developing embryo analyze the consequences if the cell divisions are not followed by cell differentiation.

Q20. Name the world's most problematic aquatic weed. What is the nature of the water body in which the weeds grow abundantly