

Welland Gouldsmith Schools

Class: VIII

Subject: Biology Answer key

**a) Name the following:**

- 1) A plant that can be grown by stem cutting : Rose, sugarcane
- 2) The detached stem part of one plant : Scion
- 3) Stems that grow along the surface of the ground : Runners or Stolons
- 4) The reproduction in which no sex cells are involved : Asexual reproduction
- 5) An example of a hermaphrodites : Earthworm
- 6) Reductional division in which chromosomes are reduced to half : Meiosis
- 7) An underground stem that looks and acts like a root : Rhizome
- 8) An example of a plant showing vegetative propagation by leaves : Bryophyllum

**B) Match the following:**

COLUMN A

1. bacteria
2. Tissue culture
3. Carnations
4. Stock
5. Seedless plants

COLUMN B

- c. Cyst formation
- d. Agar
- a. Cutting
- e. Good roots
- b. Vegetative propagation

**c) Briefly answer the questions:**

- 1) What is meant by parthenogenesis?

Ans. In some organisms, an egg develops into an adult without being fertilised.

This is known as parthenogenesis. E.g. Male ants, wasps, bee etc

2) Explain the process of reproduction in yeast.

Ans. A new individual arises on the parent organism as an outgrowth called bud. The nucleus of the body divides into two and one of the nuclei passes into the bud. The bud grows, develops and gets detached from the parent organism to become a new individual.

3) What is bulbis?

Ans. Some plants produce tiny buds that fall off and begin to grow. These buds are called bulbis. E.g. lily, Pineapple.

4) What is tissue culture? Explain the steps involved in tissue culture.

Ans. Production of plants by cells or tissues or organs in synthetic medium is called tissue culture.

Steps in Tissue Culture;

a. **Callus stage**: tissue is grown in nutrient medium till it forms an unorganised mass called callus.

b. **Plantlet stage**: The plantlet is transferred to another medium for growth and differentiation, that forms plantlets.

c. **Maturity stage**: The plantlets are transferred into soil or pots where they grow to maturity.

5) State two advantages and two disadvantages of vegetative propagation.

Ans: **Advantages**: Seedless plants are produced, Plants bear flowers and fruits earlier than those produced by seeds, Faster mode of reproduction and help in multiplying plants very fast.

**Disadvantages**: Causes overcrowding and causes competition, Plants cannot be stored for long, Disease from parent spread to all daughters.

d) Draw and label the process involved in sexual reproduction.

e) Draw, label and explain the process of spore formation in a bread mould.