## CBSE Test Paper 03 Ch-1 Reproduction in Organisms

- 1. Vegetative reproduction is a type of
  - a. Asexual reproduction
  - b. Parthenocarpy
  - c. Sexual reproduction
  - d. Apomixis
- 2. In majority of sexually reproducing organism the gametes produced are of two morphologically distinct types. These gametes are called
  - a. Homogemetes
  - b. Antrhozoids
  - c. Archegonia
  - d. Hetrogemetes
- 3. The chances of survival of young one is greater in \_\_\_\_\_\_ organism
  - a. Viviparous
  - b. Oviparous
  - c. Gammules
  - d. Omniparous
- 4. Identify the figure given below :-



- a. Root of sweet potato
- b. Rhizome of ginger
- c. Corm of ginger
- d. Stem of turmeric
- 5. Which organism is shown in the figure below



- a. Spirogyra
- b. Bryophyllum
- c. Ginger
- d. Eucalyptus
- 6. How do lower organisms reproduce asexually?
- 7. What are pre-fertilization events of sexual reproduction?
- 8. Why are off springs of oviparous animals at a greater risk as compared to offspring of viviparous animals?
- 9. Mention the unique feature with respect to flowering and fruiting in bamboo species.
- 10. Differentiate the following organisms on the basis of isogamy and heterogamy -Monocystis, Plasmodium, Human beings, Cladophora
- 11. Describe the four main characteristics of asexual reproduction.
- 12. In the whiptail lizards only females are born generation after generation. There are no males. How is this possible?
- 13. Mention the characteristic feature and a function of zoospore in some algae.
- 14. What are gemmules? Name the organism which produces gemmules. Make a labelled diagram of gemmule.
- 15. Difference between a Zoospore and a zygote.

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- a. Asexual reproduction, Explanation: Vegetative reproduction is a type of asexual reproduction. In vegetative reproduction no gametes formation takes place followed by fusion of gametes. It is mode of reproduction in plants.
- d. Hetrogemetes, Explanation: Sexually reproducing organisms produce two different kinds of gametes. Generally, male gametes are motile and smaller in size but female gametes are non-motile containing abundant food.
- a. Viviparous, Explanation: In Viviparous, well developed young one is produced by female at the end of gestation period. There is no fear of predator of outer environment as in case of oviparous in which young one comes out of egg. Viviparous mode of development is not influenced by adverse environmental conditions.
- b. Rhizome of ginger, Explanation: Rhizome of ginger is modified root, located inside the soil parallel to earth surface. Vegetative propagation of ginger is done with it.
- b. Bryophyllum, Explanation: The plants' parts shown below is the leaf of Bryophyllum having small plantlets on its margin. The vegetative reproduction by leaves occurs in this species.
- 6. By binary fission ( splitting of a parent cell into two equal daughter cells ) or by budding.
- 7. The two main pre-fertilisation events are gametogenesis and gamete transfer.
  - Gametogenesis refers to the process of formation of the two types of gametes male and female.
  - Gamete Transfer : After their formation, male and female gametes must be physically brought together to facilitate fusion (fertilisation)
- 8. Oviparous animals are animals that lay eggs, with little or no other embryonic development within the mother. Eggs cannot move on their own, so they are greater risk by different types of predators.

- 9. Some species of bamboo exhibit unusual flowering phenomenon, they flower only once in their lifetime generally after 50-100 years. They produce a large number of fruits and die.
- 10. Monocystis, Cladophora Isogamous
  - Plasmodium, Human beings Heterogamous
- 11. Following are the characteristics of asexual reproduction:
  - i. Only a single individual (parent) is involved.
  - ii. All the offsprings are clones as they are morphologically and genetically similar to the parent.
  - iii. Formation and fusion of gametes are absent.
  - iv. Only mitotic cell divisions are involved.
- 12. It indicates that the females reproduce parthenogenetically i.e. eggs develop into the new female individuals without fertilization and hence, there are no males.
- 13. Zoospores are microscopic motile structures present in the aquatic algae. Three common features are shared by zoospores.
  - Zoospore cells are wall-less.
  - Endogenous food reserves are used for the locomotion.
  - They are capable of responding to environmental signals in order to decide where to locate and where to encyst.

Functions:

- On germination give rise to new plants.
- They help in asexual reproduction.
- 14. A tough-coated dormant cluster of embryonic cells produced by a freshwater sponge for development in more favourable conditions. Freshwater sponges (Spongilla)



15.

Zoospore	Zygote
1. It is the product of asexual reproduction.	1. It is formed during sexual reproduction.
2. It bears flagella.	2. It is without flagella.
3. It is haploid or diploid.	3. It is always diploid.
4. On germination give rise to new plants.	4. It undergoes the process of embryogenesis.