

QB365 Question Bank Software Study Materials

Zoology - Reproduction in Organisms Important 2 Marks Questions With Answers (Book Back and Creative)

12th Standard

Biology

Total Marks : 40

2 Marks

20 x 2 = 40

1) Name an organism where cell division is itself a mode of reproduction.

Answer : In monocellular organs cell division is itself a mode of reproduction. (e.g:) Bacteria, Euglena and Amoeba.

2) Name the phenomenon where the female gamete directly develops into a new organism with an avian example.

Answer : Parthenogenesis is the phenomenon in which female gamete directly develops into a new organism. (e,g:) Honeybee (male or drone).

3) Why is the offspring formed by asexual reproduction referred as a clone?

Answer : Offsprings produced by asexual reproduction are called clones, because they are genetically as well as morphologically similar to the parent organism.

They are not only similar to one another, but are also exact copies of their parent (e,g): Amoeba, Spirogyra, Hydra, Yeast, etc.

4) How is juvenile phase different from reproductive phase?

Answer :

juvenile phase	reproductive phase
It is also known as young and Vegetative Phase	It is also known as Maturity adult Phase
It is the period of growth between the birth of the individual upto reproductive maturitiy.	The organisms reproduce and their offsprings reach maturity period

5) What is the difference between syngamy and fertilization?

Answer :

syngamy	fertilization
It is the fusion of two haploid gametes to form a diploid zygote	It is the act (or) process of rendering fertile zygote as the result of Fertilization

6) Name the types of fission.

Answer : There are five types of fission. They are Binary fission, multiple fission, sporulation, and strobilation.

7) What is morphallaxis?

Answer : It is a type of regeneration. In morphallaxis the whole body grows from a small fragment. E.g. Hydra.

8) Define isogamy.

Answer : The fusion of morphological and physiological identical gatnetes (isogametes) is called isogamy. E.g. Monocystis

9) Define conjugation.

Answer : conjugation is the temporary union of the two individuals of the same species. During their union both individuals, called the conjugants exchange certain amount of nuclear material (DNA) and then get separated. E.g. Paramecium

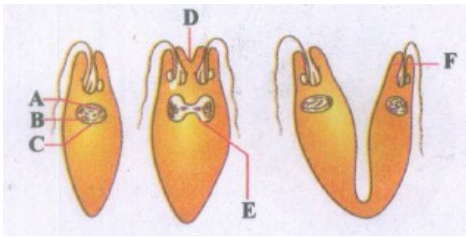
10) How are animals classified based on breeding periods?

Answer : (i) On the basis of time, breeding animals are of two types: seasonal breeders and continuous breeders.
(ii) Seasonal breeders reproduce at particular period of the year such as frogs, lizards, most birds, deers etc.,
Continuous breeders continue to breed throughout their sexual maturity. E.g. honey bees, poultry, rabbit etc.

11) With regard to asexual reproduction. mention two phenomena seen in Hydra.

Answer : Budding and Regeneration.

12) Identify the parts marked as A, B, C, D, E and F for the below diagram.



Answer : A - Chromosomes

B - Nucleoli

C - Nucleus

D - Longitudinal furrow

E - Nuclear constriction

F - Daughter Euglena

13) The organisms exhibiting sexual reproduction shows variations. Give reasons.

Answer : (i) Sexual reproduction involves formation of gametes by meiosis brings in exchange of chromosomal segments between paternal and maternal chromosomes.
(ii) Fertilization is a chance of probability because the ovum can be fertilized by any of the sperms. Hence variations will occur and degree of variations cannot be predicted in sexual reproduction.

14) Name the four types of fission seen in animals

Answer : Binary fission, Multiple fission, Sporulation and Strobilation

15) How is the fertilization of amphibians differs from aves based on site?

Answer : In amphibians, the fertilization is external (taking place outside the body of a female organism) whereas internal fertilization takes place in aves.

16) What is known as encystment in amoeba?

Answer : During unfavourable conditions (increase or decrease in temperature, scarcity of food and shelter) Amoeba withdraws its pseudopodia and secretes a three layered, protective, chitinous cyst wall around it and becomes inactive. This phenomenon is called encystment.

17) What type of fission occur in some metazoan animals?

Answer : (i) In some metazoans, a special type of transverse fission called strobilation occurs.
(ii) In the process of strobilation, several transverse fissions occur simultaneously giving rise to a number of individuals which often do not separate immediately from each other. (e.g.) Aurelia (Jelly fish).

18) Sponges reproduce both in unfavourable and in favourable conditions - Give reasons

Answer : (i) In sponges a regular and peculiar mode of asexual reproduction occurs, by internal buds called gemmules.
(ii) A completely grown gemmule is a hard ball consisting of an internal, mass of food-laden archaeocytes.
(iii) During unfavourable conditions the sponge disintegrates but the gemmules withstand.
(iv) When condition become favourable, the gemmule begins to hatch or germinate.

19) In haploid organisms that undergo sexual reproduction, name the stage in the life cycle when meiosis occurs. Give reasons for your answer.

- Answer :** (i) The requirement of meiosis is to reduce the number of chromosomes to half to maintain the ploidy.
(ii) As the organism is haploid meiosis cannot occur during gametogenesis. So meiocyte is always diploid
(iii) Meiosis can take place only in diploid stage because the zygote is the only diploid cell in the life cycle of such organisms

20) Write a brief note on conjugation.

Answer : Conjugation is the temporary union of the two individuals of the same species. During their union both individuals, called the conjugants exchange certain amount of nuclear material (DNA) and then get separated. Conjugation is common among ciliates, e.g. Paramecium, Vorticella and bacteria (Prokaryotes).