

5.8.21

HOME ASSIGNMENTS

1. How does binary fission differ from multiple fission?

Ans.	Binary Fission	Multiple Fission
	<ul style="list-style-type: none">• In binary fission, the parent organism splits to form two new organisms.• Occurs during favourable conditions.• Both the nucleus & cytoplasm divide simultaneously.• Ex - Amoeba	<ul style="list-style-type: none">• In multiple fission, the parent organism splits into many new organisms.• Occurs during unfavourable conditions.• The nucleus divides & is surrounded by cytoplasm.• Ex - Paramecium.

2. How will an organism be benefited if it reproduces through spores?

Ans. Reproduction through spores gives several advantages to an organism.

- Spores can remain dormant till favourable

conditions become available

- spores help an organism to tide over the bad phase.
- spores can be spread through water, air or animals and thus is good for the spread of an organism to more places

3. Can you think of reasons why more complex organisms cannot give rise to new individuals through regeneration?

- Complex multicellular organisms cannot give rise to new organisms because the tissues and specialised cells make up the organs in the body. Due to this high degree of specialisation, multicellular organisms cannot reproduce by regeneration of a part of some tissue.
- Organisms at higher complex levels cannot give rise to new individuals through regeneration because they have organization of their organs system at system at different levels.

- All these organs systems are interconnected and work in full coordination. They can regenerate to a few of their lost body parts like skin, but can't give rise to new individuals.

4. Why is vegetative propagation practised for growing some types of plants?

- It helps to introduce plants in new areas, where seed germination fails to produce mature plants due to changes in environmental factors.
- It is a more rapid, easier and cheaper.
- Produces identical quality as the parent
- Faster and more certain method of propagation.

5. Why is DNA copying an essential part of the process of reproduction?

DNA copying is an essential part of the reproduction process because an organism's entire genetic information is

~~code~~ contained within the DNA. If the DNA mutates, then there is a chance that the resulting organism may be born with a deformity or other genetic abnormality.