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X C ROLL No. 10

Biology Revision Worksheet - 1

1. Name the methods of reproduction in the following

a) Plasmodium - multiple fission

b) Spirogyra - fragmentation

c) Planaria - fragmentation

d) Bryophyllum - vegetative propogation (leaves)

2. What are advantages of spore formation

Ans) Benefits of spore formation :

a) Spores provide protection to organisms during unfavorable condition.

b) Spores are dispersed to a large distance to help organism in wild habitat.

c) All organisms are genetically identical.

d) A large number of organisms are produced

3. How are ~~variable~~ variations useful for survival of species ?

a) If a population of a reproducing organism were suited to particular niches and if the niches were drastically altered, the population could be wiped out. However if some variation were to be present in a few individuals in these population, there would be some chance for them

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to survive.

b) For example, if there were a population of bacteria living in temperate waters and if the water temperatures were to be increased by global warming, most of the bacteria would die but the few variants resistant to heat would survive and grow further. Thus variation is useful for survival of species.

4. Differentiate between binary and multiple fission

| | Binary fission | Multiple fission |
|---|---|---|
| a) | 2 daughter cells are produced | many daughter cells are produced. |
| b) | The nucleus divides into 2. and then divides | Nucleus divides many times but cell does not divide. |
| c) | Cyst is formed | Cyst is not formed |
| d) | Amoeba | Plasmodium |

5. Many complex organism cannot reproduce through regeneration Give reason.

Ans) a) Regeneration is carried out by special cells called regeneration cells which are present in specific part of body. These cells proliferate and make large number of cells. This mass of cells different cells undergo changes to become various cell types and tissues.

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b) In more complex organism, all the cells do not have the capacity of regeneration. So more complex organisms can't give rise to new individuals through regeneration.

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