

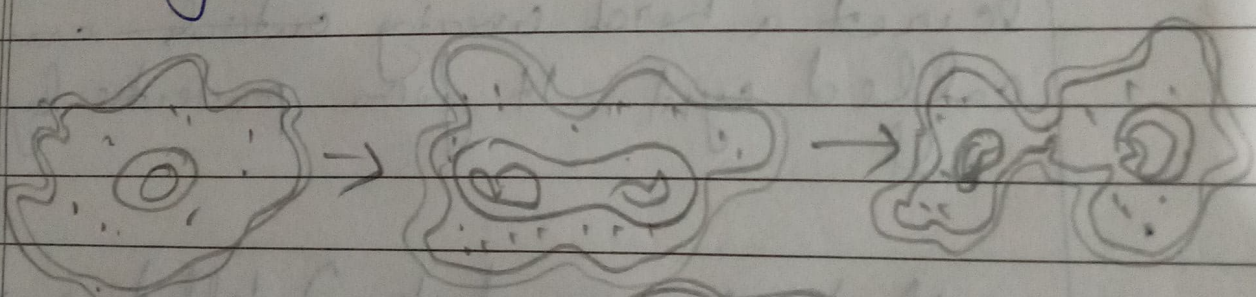
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1. "Variations that confer an advantage to an individual organism only will survive in a population." Justify

A No this statement is mostly true, but not always. Variations that are advantageous to an organism will help the organism to survive better in the environment. So these will survive in population. Sometimes variations that do not confer any particular advantage or disadvantage to an organism may also survive in population.

2. Illustrate the following with help of diagram

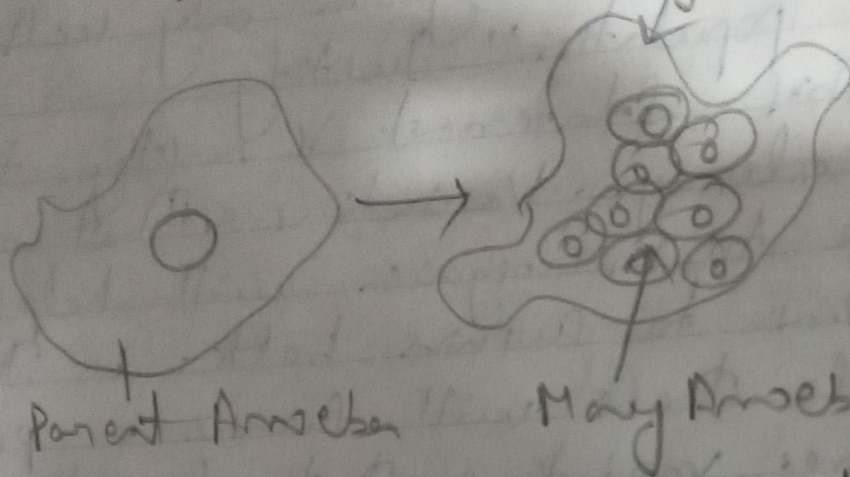
(i) Binary fission in Amoeba



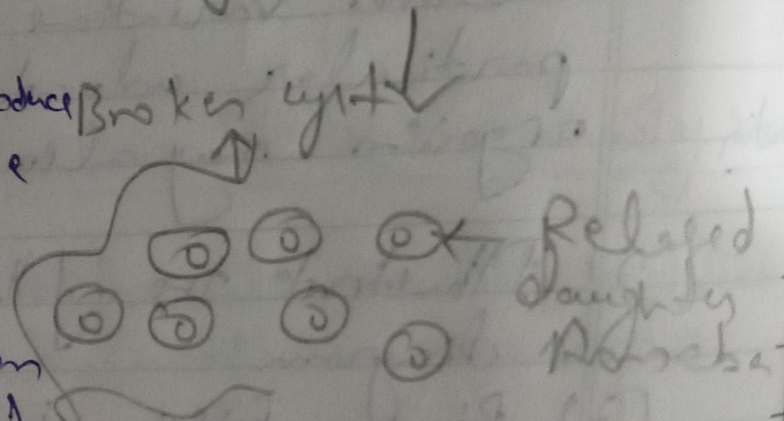
Amoeba is unicellular prokaryote. It undergoes reproduction by binary fission in which cell divides to give rise to two daughter amoeba cells.



(ii) Multiple fission in Amoeba



To survive & reproduce under unfavourable conditions Amoeba withdraws its pseudopodia & becomes round in shape. It secretes a hard covering outside around it called cyst. It forms protective layer around cell.



3. What is reproduction? What are its two types? Which one of the confers new characteristics on offspring & how?

A. Reproduction is process of producing new individuals of same species by existing organisms of species. Its two types are sexual

## 1 Asexual Reproduction

Sexual Reproduction confers new characteristics on offspring due to variations in DNA copying.