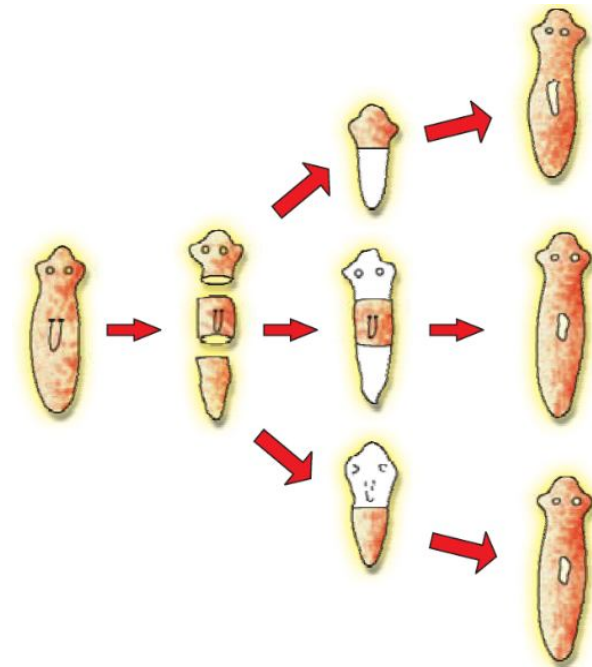


CASE STUDY QUESTION 12

Read the following and answer any four questions from 20(i) to 20(v).

Reproduction is a process by which living organisms are able to produce young ones of their new kind. Living organisms reproduce by two ways - asexual reproduction and sexual reproduction. Asexual reproduction involves the production of an offspring from a single parent without the fusion of gametes. This mostly occurs in unicellular organisms, some plants and certain multicellular organisms. There are various types of asexual reproduction.



- (i) The type of reproduction shown in the figure is
(a) budding (b) fragmentation (c) regeneration (d) fission.

Ans: (c) regeneration

Regeneration is the process by which small cut parts of body organism grow to form whole new organisms.

- (ii) Which of the following is correct example of the process shown in the given figure?
(a) Hydra (b) Planaria (c) Amoeba (d) Both (a) and (b)

Ans: (d) Both (a) and (b)

Simple animals like Hydra and Planaria can be cut into any number of pieces and each piece grows into a complete organism by regeneration.

- (iii) A feature of reproduction that is common to Amoeba, yeast and bacteria is that
- (a) they are all unicellular
 - (b) they are all multicellular
 - (c) they reproduce only sexually
 - (d) they reproduce asexually.

Ans: (d) they reproduce asexually.

- (iv) Asexual reproduction is
- (a) a fusion of specialised cells
 - (b) a method by which all types of organism reproduce
 - (c) a method producing genetically identical offspring
 - (d) a method in which more than one parent are involved.

Ans: (c) a method producing genetically identical offspring

In asexual reproduction, the young one receives all its genes from one parent, so offspring produced are genetically identical to the parents.

(v) From the given list of organisms, those which reproduce by the asexual method are:

(i) Aspergillus (ii) Dog (iii) Papaya (iv) Paramecium

(a) (i) and (ii)

(b) (ii) and (iii)

(c) (i) and (iv)

(d) (ii), (iii) and (iv)

Ans: (c) (i) and (iv)

Aspergillus and Paramecium reproduce by spore formation and fission respectively. All these are methods of asexual reproduction. Dog and papaya reproduces through sexual methods.