



BAL BHARATI PUBLIC SCHOOL, PITAM PURA, DELHI-110034

CORE ASSIGNMENT- CLASS8-BIOLOGY

REPRODUCTION IN ANIMALS

VERY SHORT ANSWER TYPE QUESTIONS:-

I. Tick the correct option:-

1. Internal fertilization occurs

- (a) in female body (b) outside female body
(c) in male body (d) outside male body

Ans- (a) in female body

2. A tadpole develops into an adult by the process of

- (a) fertilization (b) metamorphosis
(c) embedding (d) budding

Ans- (b) metamorphosis

3. The number of nuclei in the zygote is

- (a) none (b) one (c) two (d) four

Ans- (b) one

II. Fill in the blanks:-

1. Puberty is the state of onset of sexual maturity in human beings.
2. Reproduction is very important for continuation of a species.
3. The zygote repeatedly divides to form an embryo.

SHORT ANSWER TYPE QUESTIONS:-

1. Explain the following terms:-

- (a) Reproduction- The process of giving rise to new organisms of the same species.
- (b) Fertilization- The fusion of male & female gametes.
- (c) Zygote- The single-celled structure formed on the fusion of male & female gametes.
- (d) Metamorphosis- The gradual transformation of an organism from one form to another during its life cycle

- (e) Hermaphrodites-The organisms having both male & female reproductive organs in the same body. Eg:- Earthworm, Leech
- (f) Foetus- The multicellular structure formed after the repeated cell divisions in the Zygote formed as a result of fertilization.
- (g) Larva- The active form that emerges from the eggs .
- (h) Placenta- The specialized tissue that attaches the developing foetus to the uterine wall & provides for it nourishment, respiration & excretion.

2. Give reasons for the following:-

- (a) Gender of the resulting offspring is determined by the male parent in humans.
Ans- The Y-chromosome bearing sperm that fertilizes an ovum results in a male offspring.
The X-chromosome bearing sperm that fertilizes an ovum results in a female offspring.
- (b) Sex hormones regulate secondary sexual characters.
Ans- The functioning of our reproductive organs is regulated by the sex hormones and one of the functions is the appearance of secondary sexual characters at puberty.
- (c) Platypus & Echidna lay eggs but are not oviparous animals.
Ans- They lay eggs but feed the young ones on milk through the mammary glands.
- (d) Sperm needs to have motility.
Ans – Sperms have to enter the female reproductive passage and fertilize the ovum by travelling through the vagina & uterus for this in the fallopian tube/ oviduct.

LONG ANSWER TYPE QUESTIONS:-

1. Explain where the embryo stays till it is fully developed and also explain how its nutritional , respiratory & excretory functions are carried out.

Ans- The embryo gets attached to the uterine wall through the Placenta which is a specialized tissue richly supplied by blood & takes care of all the developmental functions of the developing embryo- nutrition, respiration & excretion.

2. What is Asexual reproduction? What are the advantages of this method?

Ans- The mode of reproduction that involves a single organisms & also doesn't require any special organs or cells. Its advantages are:-

- (a) Offsprings produced are identical to the parents so desired traits can be transmitted to the next generation
- (b) A quick method of reproduction

(c) Only one parent organism is required, no special organs or cells also required.

3. Explain the meaning of Binary Fission. Name a few organisms that reproduce like this & draw a series of diagrams to demonstrate this process in Amoeba.

Ans- The method by which an organism divides into two equal halves .

Other organisms are:- Paramecium, Euglena, Bacteria. Refer to figure 9.12 of NCERT

4. Explain how budding occurs. Name a few organisms that reproduce like this & draw a series of diagrams to demonstrate this process in Hydra.

Ans- Small bulges appear on the sides of the body of the organisms that gradually develop into new organisms.

Sponges & Yeast besides Hydra. Refer to figure 9.11 of NCERT

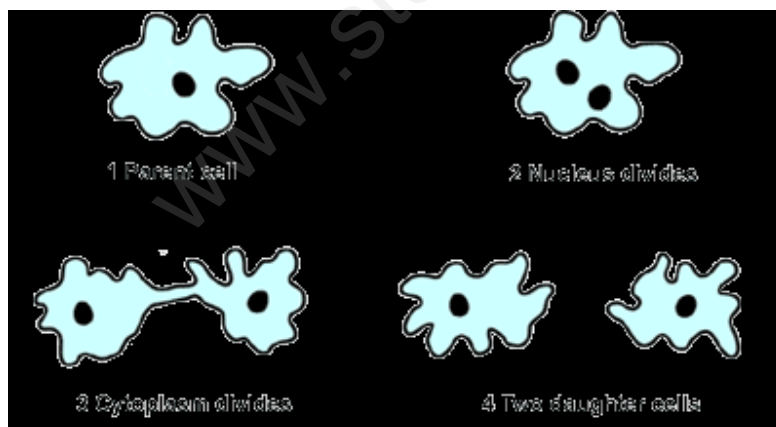
5. What is Metamorphosis? With the help of flow diagrams illustrate the life cycles of a Silkworm & Frog.

Ans- Metamorphosis- The gradual transformation of an organism from one form to another during its life cycle.

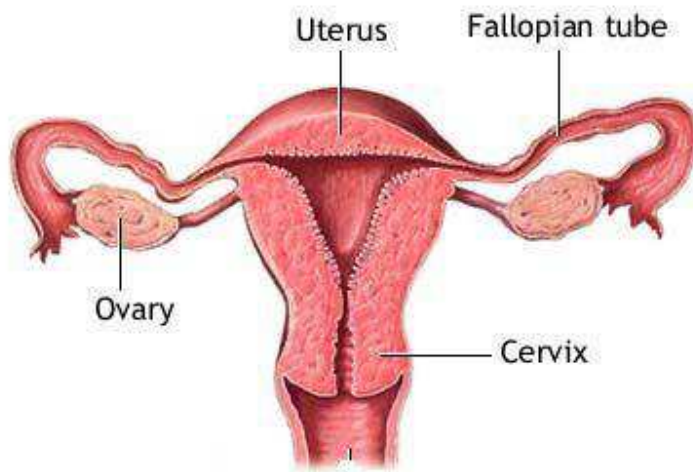
Silkworm:- Egg→Larva/ Caterpillar→Pupa/ Cocoon→Adult

Frog:- Egg→Tadpole(Larva)→Froglet→Adult Frog

6. Draw a well labeled diagram showing binary fission in amoeba.



7. Draw a well labeled diagram of female reproductive system of human beings.



8. Draw a well labeled diagram showing budding in hydra.

