Reproduction in Animals

Q.1 Explain the importance of reproduction in organism.

Sol: Reproduction is the process of production of the new individuals or offspring from any organisms. It is very important life process for each and every living organism to existence or continuity of the any species on the earth. Without reproduction the species will be vanished from the earth.

Q.2 Describe the process of fertilization in human beings.

Sol: Male reproductive organ testis produces male gamete or sperm while female reproductive organ ovary produces female gamate or ovum (Egg).
These male and female gamate fuse together in the fallopian tube of female body and this process of fusion is termed as fertilization. The nuclei of the sperm and the egg fuse to form a single nucleus fertilised egg called zygote, which will become a foetus in the womb.

Q.3 Choose the most appropriate answer.

(a) Internal fertilization occurs
- i. In female body.
- ii. Outside female body
- iii. In male body
- iv. Outside male body

Sol: (i) In female body.

(b) A tadpole develops into an adult frog by the process of
- i. Fertilisation.
- ii. Metamorphosis
- iii. Embedding
- iv. Budding

Sol: (ii) Metamorphosis

(c) The number of nuclei present in a zygote is
- i. None
- ii. One
- iii. Two
- iv. Four

Sol: (ii) One

Q.4 Indicate whether the following statements are True (T) or False (F).

(a) Oviparous animals give birth to young one. ( ).
(b) Each sperm is a single cell. ().
(c) External fertilization takes place in frog. ().
(d) A new human individual develops from a cell called gamete ()
(e) Egg laid after fertilization is made up of a single cell ().
(f) Amoeba reproduces by budding. ().
(g) Fertilisation is necessary even in asexual reproduction. ().
(h) Binary fission is a method of asexual reproduction. ().
(i) A zygote is formed as a result of fertilization. ().
(j) An embryo is made up of a single cell. ().

Sol:

(a) Oviparous animals give birth to young one. (F).
(b) Each sperm is a single cell. (T).
(c) External fertilization takes place in frog. (T).
(d) A new human individual develops from a cell called gamete (F)

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(e) Egg laid after fertilization is made up of a single cell (T).
(f) Amoeba reproduces by budding. (F).
(g) Fertilisation is necessary even in asexual reproduction. (F).
(h) Binary fission is a method of asexual reproduction. (T).
(i) A zygote is formed as a result of fertilization. (T).
(j) An embryo is made up of a single cell. (F).

Q.5 Give two differences between a zygote and Foetus.
Sol: Two differences between a zygote and Foetus

zygote	Foetus
1. Zygote is the single cell formed due to fusion of ovum and sperm.	1. Foetus is multicelled. It forms due to repeated division of zygote. So, it is much developed form of zygote.
2. It is generally observed in the fallopian tube of the female.	2. It is the present in the uterus.

Q.6 Define asexual reproduction. Describe two methods of asexual reproduction in animals.
Sol: In this type of reproduction, only parent is involved. There is no formation of gamete in this type of reproduction. Example: Animals like Hydra, Amoeba undergo asexual mode of reproduction.

Two types of asexual reproduction are:

1. Budding: In budding, an outgrowth of the bulge called bud from the parent body which further develops into an adult and then separate it from the parent body. Example: Hydra.

2. Binary Fission: In Binary fission, the body of the organism divides into two equal individual cell. Each of the two daughter cells has one nucleus and develops into separate individual. Example: Amoeba.

Q.7 In which female reproductive organ does the embryo get embedded?
Sol: The embryo gets embedded in the wall of the uterus.

Q.8 What is metamorphosis? Give examples.
Sol: The Sudden change occurs in the animal during the transformation of larva into adult is called as metamorphosis. Example of the animals that undergoes metamorphosis process are:
(i) Silkworm (egg-----> caterpillar-------> pupa ----->adult)
(ii) Frog (egg --------> tadpole ----------> adult)

Q.9 Differentiate between internal fertilization and external fertilization.
Sol: Differentiate between internal fertilization and external fertilization:

Internal fertilization	External fertilization
1. This takes placed inside the female body	1. This takes place outside the female body
2. Example: Human beings, dog, hen etc.	2. Example: frog, fish etc.

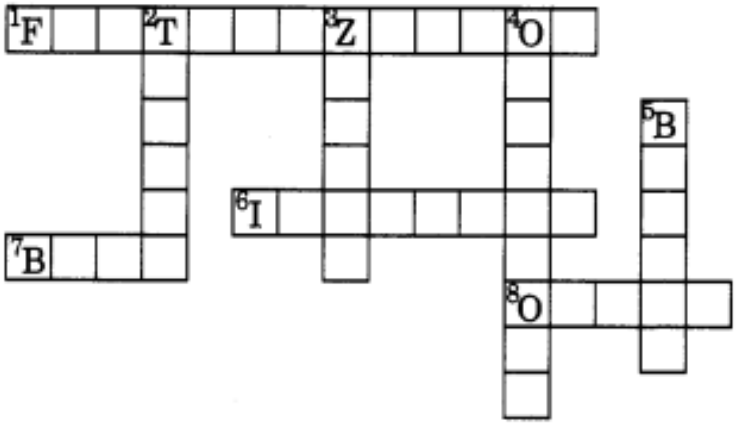
Q.10 Complete the crossword puzzle using the hints given below.

Across

1. The process of the fusion of the zygotes.
6. The type of fertilizations in hen.
7. Term used for bulges observed on the sides of the body of hydra.
8. Eggs are produced here.

Down

2. Sperms are produced in these male reproductive organs.
3. Another term for the fertilized egg.
4. These animals lay eggs.
5. A type of fission in amoeba.



Sol: