INDIAN SCHOOL AL WADI AL KABIR		
CLASS: VIII	**DEPARTMENT: SCIENCE (2024-2025)**	**DATE: 18/11/2024**
TEXTBOOK- Q & A	**CHAPTER: REPRODUCTION IN ANIMALS**	**NOTE: A4 FILE FORMAT**
CLASS & SEC:	**NAME OF THE STUDENT:**	**ROLL NO.**

1. Explain the importance of reproduction in organisms.

Answer:

Reproduction is a vital phenomenon on this planet earth which is essential for the existence and continuity of life and species on it, generation after generation.

2. Describe the process of fertilisation in human beings.

Answer:

In the process of fertilisation, sperm comes in contact with an ova (egg). One of the sperm may fuse with the egg. The nuclei of the sperm and the egg fuse to form a single nucleus resulting in the formation of a fertilised egg called a zygote. In human beings, fertilisation takes place inside the female body, known as internal fertilisation.

3. Choose the most appropriate answer.

(a) Internal fertilisation occurs

(i) in the female body.

(ii) outside the female body.

(iii) In the male body.

(iv) Outside male body.

(b) A tadpole develops into an adult frog by the process of:

(i) fertilisation

(ii) **metamorphosis**

(iii) embedding

(iv) budding

(c) The number of nuclei present in a zygote is:

(i) none

(ii) **one**

(iii) two

(iv) four

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

1. Oviparous animals give birth to young ones. **False**
2. Each sperm is a single cell. **True**

3. External fertilisation takes place in the frog. **True**
4. A new human individual develops from a cell called a gamete. **False**
5. Egg laid after fertilisation is made up of a single cell. **True**
6. Amoeba reproduces by budding. **False**
7. Fertilisation is necessary even in asexual reproduction. **False**
8. Binary fission is a method of asexual reproduction**. True**
9. A zygote is formed as a result of fertilisation**. True**
10. An embryo is made up of a single cell**. False**

5. Give two differences between a zygote and a Foetus.

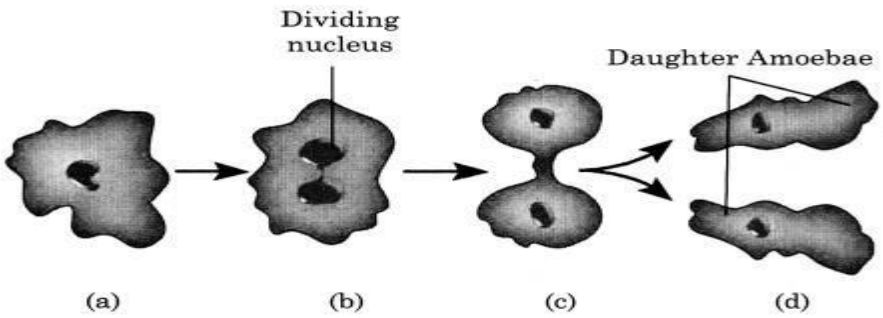
Zygote	**Foetus**
(i) It is a single cell, i.e., it contains only one cell.	**(i) It is multicellular, i.e., it contains many cells.**
(ii) It is formed by the fusion of male gamete or sperm and female gamete or ova (egg).	**(ii) It is formed by the repeated division of the zygote.**

6. Define asexual reproduction. Describe two methods of asexual reproduction in animals.

Answer:

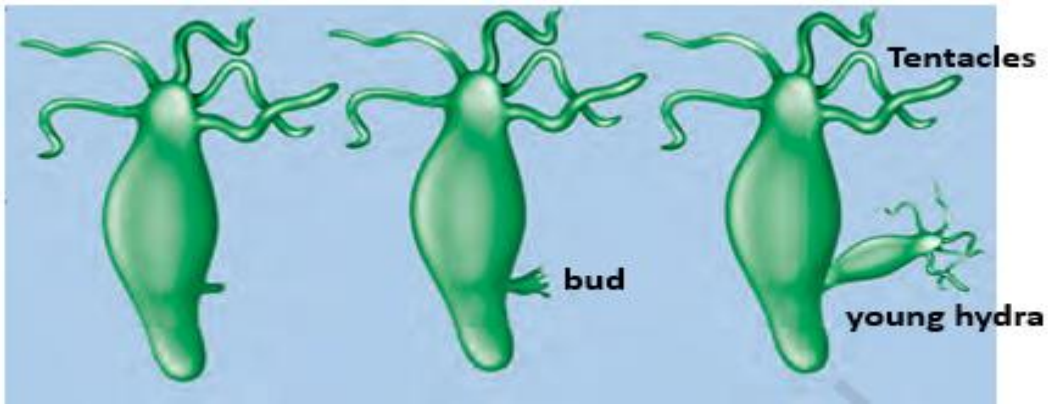
The mode of reproduction in which only a single parent is involved is called asexual reproduction. In this type of reproduction, sex cells (gametes) are not produced and no fusion of gametes takes place for the production of a zygote or offspring. Asexual reproduction takes place in Amoeba, Hydra, yeast, starfish, sponges, etc. There are mainly two methods of asexual reproduction:

i) Binary fission: In binary fission, a single parent cell is divided into two equal individual cells. Amoeba is a single-celled organism It begins the process of reproduction by the division of its nucleus into two nuclei. This is followed by the division of its body into two, each part receiving a nucleus. Finally, two amoebae are produced from one parent amoeba. This type of asexual reproduction in which an animal reproduces by dividing into two individuals is called binary fission.



Binary fission in Amoeba

(i) Budding: In budding, the organism develops a bulge called bud which further develops into an adult organism and separates itself from the parent body to lead an independent life. This type of reproduction is shown in Hydra. In each hydra, there may be one or more bulges. These bulges are the developing new individuals and they are called buds. In Hydra, the new individuals develop as outgrowths from a single parent.
Since new individuals develop from the buds in hydra, this type of asexual reproduction is called budding.



7. In which female reproductive organ does the embryo get embedded?
Answer-Uterus

8. What is metamorphosis? Give examples.
Answer: The transformation of the larva into an adult through drastic changes is called metamorphosis. For example, frog and butterfly.

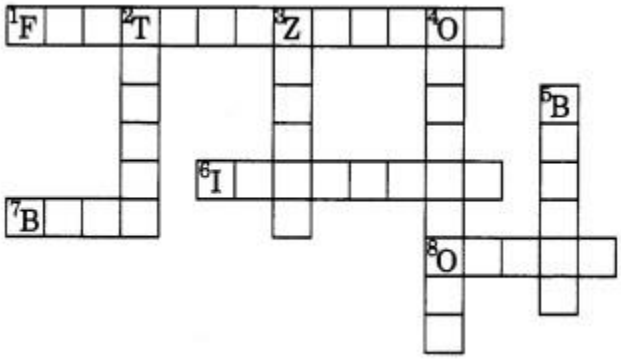
9. Differentiate between internal fertilisation and external fertilisation.

Answer:

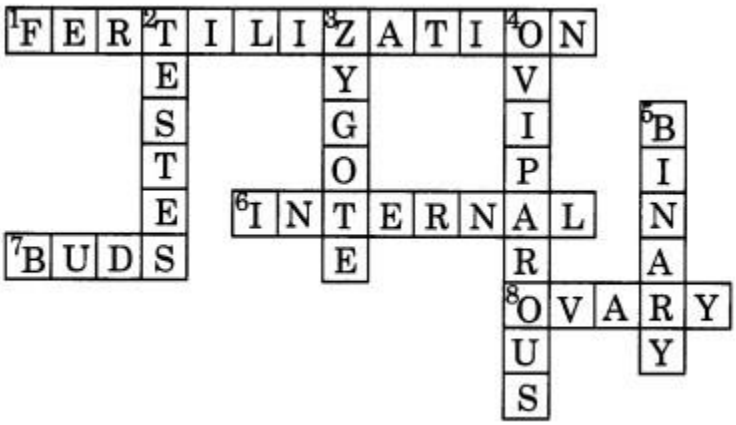
Internal Fertilisation	External Fertilisation
(i) The fusion of male gamete or sperm and female gamete or ova occurs inside the body of a female partner, such as human beings, birds, and mammals.	**(i) The fusion of male gamete and female gamete takes place outside the body of a female partner, such as in frogs, fish, and starfish.**
(ii) The female partner lays either fertilised eggs or a fully grown young one.	**(ii) The female partner discharges unfertilised eggs.**
(iii) Offsprings have a high chance of survival.	**(iii) Offsprings have a low chance of survival.**

Question 10.
Complete the crossword puzzle using the hints given below.
Across
1. The process of the fusion of the gametes.
6. The type of fertilisation in a hen.
7. The 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 fertilised egg.
4. These animals lay eggs.
5. A type of fission in Amoeba.



Answer:



Prepared by *Ms Suma Senu*	*Checked by* *HoD Science*