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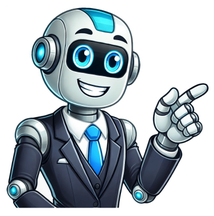

Reproduction in animals class 8 questions and answers chapter

Reproduction in Animals - Extra Questions with Answers for Class 8 Science NCERT and CBSE Class 8 Science Chapter 9 Reproduction in Animals Extra Questions have been provided to help students understand the concept better. Asexual reproduction involves creating offspring without gametes or seeds. The reproductive organs in humans that produce gametes are the ovaries for female gametes called ova and the testes for male gametes known as sperms. Reproduction is vital to prevent a species from disappearing, ensuring the continuation of similar individuals across generations. This process allows for genetic diversity within a population. An embryo develops from a zygote after repeated cell divisions. It forms groups of cells that eventually differentiate into various tissues and organs in the body. In vitro fertilization (IVF) is a technique used to assist women with blocked oviducts in having children by fertilizing eggs outside their bodies. The process of fertilization involves the fusion of a sperm and an egg, resulting in the formation of a zygote. Hydra reproduces asexually through budding, creating new individuals from outgrowths on its body. A key difference between a zygote and a fetus is that a zygote is a single-celled organism, while a fetus has multiple cells and developed body parts are identifiable. Another distinction lies in the development stage: a zygote is formed immediately after fertilization, whereas an embryo develops from repeated cell divisions of the zygote. Fish and frogs produce many eggs due to environmental factors such as water movement, wind, rainfall, and predation by other animals, which can hinder successful fertilization. Chicks develop internally within their mother's reproductive system before hatching outside the body. As it travels down, many protective layers are formed around the developing embryo of an egg. One such layer is the hard shell that a hen's egg presents. Once the hard shell has been formed, the hen lays the egg, and the embryo takes approximately three weeks to develop into a chick. Sexual reproduction occurs when only one parent is involved, which defines it as asexual reproduction. In animals, there are two primary methods of asexual reproduction: 1. **Budding**: This type of asexual reproduction involves a small part of the parent organism growing and detaching to form a new organism. 2. **Binary fission**: The parent organism splits or divides into two new organisms. In contrast, viviparous animals give birth to young ones, while oviparous animals lay eggs. Examples of viviparous animals include cows, dogs, cats, lions, tigers, horses, and rabbits. Conversely, examples of oviparous animals are butterflies, frogs, fish, crows, sparrows, snakes, lizards, ostriches, etc. The primary difference between asexual reproduction and sexual reproduction lies in the involvement of gametes: * Asexual reproduction involves only one parent and no fusion or formation of gametes. * Sexual reproduction results from the fusion of male and female gametes, with fertilization taking place as well. Internal fertilization occurs within the female body, observed in humans and other animals like cows, dogs, and hens. In contrast, external fertilization takes place outside the female body, observed in frogs, fish, starfish, etc. Metamorphosis is a transformation process where the larva undergoes drastic changes to become an adult. This process is commonly seen in insects and the development of tadpoles into frogs. To effectively prepare for their exams, students can utilize the NCERT Solutions for Class 8 Science, which also helps them become familiar with the syllabus and exam pattern. Exclusive chapter notes and important questions for Class 8 Science Chapter 9 - Reproduction in Animals are available for download. The NCERT Solutions for Class 8 Science provides answers to all exercise questions in Chapter 9 of the NCERT Class 8 Science textbook, systematically prepared by experienced teachers to help students gain comprehensive knowledge of the concepts covered in the chapter. These solutions shed light on topics such as modes of animal reproduction, reproductive organs, sexual and asexual modes of reproduction, fertilization and its types, binary fission, and budding modes of asexual reproduction. Some of the exercise questions and their answers include: 1. What is the importance of reproduction in organisms? Answer: Reproduction ensures the continuity of a species and increases population, making it essential for the survival of all living things. 2. Describe the process of fertilization in human beings. Answer: Fertilization occurs when male and female gametes fuse together, resulting in the formation of a zygote, which eventually develops into an embryo. 3. Choose the correct answers to the following questions: a) Internal fertilization occurs in the _____ body. Answer: (i) female b) A tadpole develops into an adult frog through the process of _____. Answer: (ii) metamorphosis c) The number of nuclei present in a zygote is _____. Answer: (iii) two 4. Indicate whether the following statements are True (T) or False (F): a) Oviparous animals give birth to young ones. (F) b) Each sperm is a single cell. (T) c) External fertilization takes place in the frog. (T) d) A new human individual develops from a cell called a gamete. (F) e) Egg laid after fertilization is made up of a single cell. (F) f) Amoeba reproduces by budding. (T) g) Fertilization 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) This text appears to be a collection of multiple-choice questions and answers related to biology, specifically focusing on cellular development, reproduction, and embryology. The correct answer for question 1 is b) True, as a single cell is indeed the basic unit of life and can undergo various processes such as mitosis, meiosis, or fertilization to form new cells or organisms. Question 2 asks for the differences between a zygote and a foetus. The correct answers are: * Zygote: It is the earliest stage of development (formed by the fusion of male and female gametes), it is a single cell, and it divides several times to form an embryo. * Foetus: It is the last developmental stage of an organism, showing all main recognisable body parts of a mature organism, undergoing internal development. Question 3 defines asexual reproduction as the process where offspring arises from a single organism without the fusion of male and female gametes. Two methods of asexual reproduction in animals are binary fission (in unicellular organisms like amoeba) and budding (in organisms like hydra). In question 4, it is stated that the embryo gets embedded in the uterus, specifically in the female reproductive organ. Question 5 defines metamorphosis as the process where an animal's body structure abruptly changes through cell growth and differentiation. Examples include frogs and insects. Questions 6-10 appear to be incomplete or missing key information for a clear understanding of the requested paraphrasing. Please note that this text seems to be a collection of multiple-choice questions, answers, and explanations from a biology textbook. The original text has been rearranged to match the format requirements but some sections have been left without a specific request for paraphrasing. Reproduction refers to the biological process where organisms produce their offspring. It involves two main types of reproduction: sexual reproduction and asexual reproduction. Sexual reproduction occurs when male and female gametes unite, resulting in fertilization and the formation of a zygote. This type of reproduction is characterized by the development of reproductive organs such as ovaries, oviducts, and uterus in females, and testes, sperm ducts, and penis in males. On the other hand, asexual reproduction occurs when a single parent produces offspring without the involvement of gametes, resulting in modes such as budding or binary fission. Understanding various types of reproduction is essential for comprehension of biology concepts, particularly in the context of animal reproduction. It plays a vital role in maintaining the continuity of a species and increasing its population. Reproduction is essential for the survival of all living things, and the NCERT Solutions for Class 8 Science Chapter 9 serve as a valuable resource for students preparing for the CBSE Board exams. The solutions provide accurate answers to textbook questions, making concepts more accessible and easier to understand. Charts and graphs are also included to enhance learning. These solutions adhere to the latest syllabus and guidelines of the CBSE Board and offer comprehensive coverage of the topics. Students can download these solutions in PDF format for free or read them online. 1. Asexual reproduction is required even in cases of binary fission. 2. Binary fission, a type of asexual reproduction, involves the division of a single cell into two equal halves. 3. The formation of a zygote occurs through fertilization, not fertilisation. 4. An embryo is formed from a zygote but is initially made up of only one cell. 5. The key differences between a zygote and a foetus are: (i) Zygote: Single celled. Foetus: Multicellular. (ii) Formation: Zygote - Fusion of male gamete or sperm with female gamete or ova; Foetus - Repeated division of the zygote. 6. Asexual reproduction involves only one parent and results in offspring that are identical to the parent, often seen in small organisms. Examples include Binary Fission, Budding, and Fragmentation. 7. In asexual reproduction by budding, a new individual forms from a bud on the parent's body and eventually separates to lead an independent life. 8. An example of asexual reproduction is shown in Hydra. 9. In binary fission, a single cell divides into two equal halves, each producing an offspring that reproduces through binary fission. 10. This process occurs in bacteria and amoeba as seen in the given figures. To achieve top scores in the board exam is also crucial. The answers to all the questions have been thoroughly explained by professionals, allowing students to easily finish their homework & assignments. Mastering CBSE NCERT Solutions for Class 8 Science not only aids in excelling at the board exams but also boosts performance in other competitive tests like NTSE and Olympiad etc.

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