

## Multiple Choice on Biogenetics

① Fill in the blanks with the appropriate word or phrase from the word bank provided.

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Biotechnology cloning controversial DNA DNA fingerprinting Embryonic stem cells  
Epigenetics ethnological concern fertile Fertility gene genetic disorder Genetics  
manipulation

\_\_\_\_\_ is a science field involving the \_\_\_\_\_ of living organisms or their components to produce valuable products. The process of creating an exact genetic replica of an organism is called \_\_\_\_\_. Cloning has been a \_\_\_\_\_ topic due to ethical and moral concerns surrounding the cloning of humans. \_\_\_\_\_, or deoxyribonucleic acid, carries the genetic instructions for all known organisms' development, functioning, growth, and reproduction.

\_\_\_\_\_ is a technique used to identify and analyse the unique patterns in an individual's DNA. \_\_\_\_\_ are pluripotent cells derived from the inner cell mass of a blastocyst, an early-stage pre-implantation embryo. \_\_\_\_\_ is the study of heritable changes in gene expression or cellular phenotype caused by mechanisms other than changes in the underlying DNA sequence. There is an \_\_\_\_\_ regarding the unequal distribution and use of biotechnological advancements across different ethnic groups. A \_\_\_\_\_ individual is capable of producing offspring.

\_\_\_\_\_ refers to the ability of an organism to reproduce. A

\_\_\_\_\_ is a unit of heredity that is transferred from a parent to offspring and is held to determine some characteristic of the offspring. \_\_\_\_\_ is the study of genes and their role in inheritance. A \_\_\_\_\_ is a genetic condition caused by abnormalities in an individual's DNA.

text continued ...

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Genetic engineering Genetic modification genome GM (genetically modified) food  
In vitro fertilisation laboratory Organ donation Social egg freezing Surgery  
To implant something into Xenotransplantation

\_\_\_\_\_ is the process of altering an organism's genetic makeup using biotechnological methods. \_\_\_\_\_ have had their genetic material altered in a way that does not occur naturally through mating or natural recombination. The complete set of genes or genetic material present in a cell or organism is referred to as its \_\_\_\_\_.

\_\_\_\_\_ refers to crops that have been modified using genetic engineering techniques. \_\_\_\_\_ involves placing an object into a particular place, especially when talking about placing an object into a living organism. \_\_\_\_\_

involves fertilising an egg with sperm outside the body in a laboratory setting. A

\_\_\_\_\_ is a medical professional trained to perform surgical procedures.

\_\_\_\_\_ is the branch of medicine that involves treating diseases or injuries by operative procedures. \_\_\_\_\_ is a process where a woman's eggs are extracted, frozen, and stored for future use. \_\_\_\_\_ involves transferring an organ from one body to another for the purpose of replacing a damaged or failing organ.

\_\_\_\_\_ is the transplantation of living cells, tissues, or organs from one species to another.

Points:

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