

TEXT: Benefits of Genetic Engineering

Almost every day, a scientist makes a new breakthrough in the field of human engineering. Mammals have been successfully cloned and the human genome project has been completed. This is pushing the scientists all over the world to research many different facets of human genetic engineering. These researches have allowed a better understanding of DNA and its role in medicine, pharmacology, reproductive technology and various other fields. The scientists at Roslyn Institute in Scotland, cloned an exact copy of a sheep, named 'Dolly'. Newly created animals by the process of genetic engineering are known as xerographs. In human, the most promising benefit of genetic engineering is gene therapy which is the medical treatment of a disease wherein the defective genes are repaired and replaced or therapeutic genes are introduced to fight the disease. Over the past decade, many autoimmune and heart diseases have been treated using gene therapies.

Thanks to genetic engineering, the pharmaceutical products available today are far more superior to their predecessors. These new products are created by cloning certain genes. Some of the prominent examples are the bio-engineering insulin which was earlier obtained from sheep or cows and the human growth hormone which was earlier obtained from cadavers. New medicines are being made by changing the genetic structure of the plant cell. Genetic engineering is also a boon for pregnant women who can choose to have their fetuses screened for genetic defects. These screenings can help the parents and doctors prepare for the arrival of the child who may have special needs during or after the delivery.

QUESTIONS (20 points)

I- READING COMPREHENSION QUESTIONS (5 points)

A. Multiple choice questions (1 point)

Copy the complete sentence containing the correct answer.

1. The ... in human engineering encouraged scientists to research many different facets of human genetic engineering.

- a. Problems
- b. Success
- c. Fail
- d. Difficulties.

2. Roslyn institute is in ...

- a. Ireland
- b. The USA
- c. Scotland
- d. Wales.

B. True / False questions (2 points)

Copy the true sentences and correct the false ones.

1. Human engineering is well developed now.
2. DNA plays no role in medicine.
3. Therapeutic genes are introduced to fight the disease in gene therapy.
4. The human growth hormone was formerly obtained from cadavers.

C. Answer the following questions (2 points)

1. What are xerographs?
2. Why are the pharmaceutical products available today far more superior to their predecessors?

II- LANGUAGE (10 points)

A. Copy down each word from the list on the left with the correct definition from the right. (2 points)

A	B
Breakthrough	something beneficial that is conferred
Clone	the act or process of giving birth
Boon	to duplicate (an organism) asexually
Delivery	a discovery that permits further progress

B. Put the transitive verbs into the passive voice. (2 points)

1. An ambulance took the sick man to hospital.
2. A machine could do this work much more easily.

C. Add *very, much or far* to the following sentences. (2 points)

1. It's hot today.
2. It's hotter today than yesterday.
3. Learning a second language is difficult.
4. Learning a second language is more difficult than learning chemistry formulas.

D. Translate into English (2 points)

Le gène thérapie a permis de rendre fertiles les femmes stériles grâce à son traitement de transplantation d'organe, d'hormone et de gène sur une personne malade.

E. Translate in French (2 points)

From "Thanks to genetic engineering ..." to "... cloning certain genes."

III- COMPOSITION (5 points)

Choose only **one** topic.

1. Many people are against the use of genetic engineering. Tell them the benefits of genetic engineering in a ten-line essay.

2. World Health Organization, BP 45, Bamako, Mali, has advertised in ESSOR a job available for a doctor in medicine able to speak French and English fluently and able to use the computer.

Buba Camara, Rue 32 Porte 110, quartier commercial Kayes, writes a letter to the Personnel Officer of World Health Organization to apply for the job. He says why he thinks he should be suitable.

Write Buba's letter with the appropriate layout.