GENETIC ENGINEERING OF FOOD

1. Why do people in Third World countries suffer from acute **starvation**?
2. Is it necessary to produce more food to feed starving people?
3. Can the genetic engineering of food help in this respect?

Read the following text and answer the questions below it.

Despite the global overproduction of food, millions of people suffer from hunger and die of starvation each year. The problem is most severe in the underdeveloped and developing countries of the Third World. Politicians, scientists and human **aid** organisations have been trying to work out a concrete solution to the problem of starvation for years. However, it appears that aid concerts, charity donations and political **disputes** are not sufficient because the needs of poor and starving people are either not well-defined or the **measures** taken are not adequate. It may seem that the question of global starvation is not a difficult one to resolve judging by the **ample** amount of food produced by developed and wealthy countries. Yet, the issue of satisfying hunger in the Third World is **hindered** by many obstacles most of which are political and financial.

As the population of the planet increases and the poverty becomes more **acute** in the poor regions, the question of food availability turns into a matter of major concern. It is common knowledge that global food **resources** are sufficient to feed every person in need. There are suggestions for increasing global food production, but to specialists these suggestions make little or no sense at all. The **core** of the problem lies in food distribution and financial **constraints**. Many people are simply too poor to buy readily available food. At this point, the problems of **humiliating** starvation and **abject** poverty **overlap** and the conclusion that **emerges** is that there is no other way to end starvation than by **abolishing** global poverty. However **commendable** the objective may sound, it is highly unlikely to be **accomplished** within the next decade or so. No wonder then that a **host** of alternative proposals **crop up** every now and then. Genetic engineering of food is one of them and has attracted a great deal of attention in the **mainstream** media in many countries.

Genetic engineering is the field of science that can open many new doors and can have **multiple** applications in the future. To mention just a few, geneticists have cloned animals and are getting close to cloning man, however controversial the idea may be. They have grown *transgenic* animals with genes from other species, they can modify viruses to make them harmless to humans and they may be able to grow parts of the human body for transplantation. Genetic engineering has also made its way into food production. However, the idea of genetically engineered foods has as many opponents as **advocates**.

It may sound surprising to some people that a lot of foods we eat today contain genetically altered ingredients. Many of the changes have been **effected** without our knowledge and many such products are not clearly labelled. For example, considerable genetic changes have been introduced in many types of crops to make them grow bigger, faster and more healthily. Some genetically modified crops may contain greater amounts of vitamins, minerals or proteins than their naturally grown **counterparts**. Genetically **altered** cattle produce milk with a higher **content** of calcium whereas genetically modified pigs' meat is known to be **leaner** and more **tender**. Biotechnology experts claim that the genetic engineering of food is a direct response to the problem of global starvation. They believe that modified foods may help **alleviate** hunger and increase cheaper food production.

There are however many questions and uncertainties about the genetic alternative. There is a growing wave of concern among consumers, farmers, scientists and politicians about the **feasibility** and the ultimate **outcome** of the genetic engineering of food. Some of them point to the fact that the problem of hunger in the world does not **stem from** a **shortage** of food. They claim it is the political and economic **constraints** that keep many people dying of hunger and that there is no need for increased food production. **Adversaries** of the concept say technology does not represent a direct solution to the problem of **famine**. Other critics say that innovations in agricultural biotechnology are profit-driven rather than need-driven. Huge corporations have invested **exorbitant** amounts of money in a genetic research and hope it will bring financial **yield** and will make the populations in need dependent on their products. The motives of the food producers are recognised as clearly commercial. The companies that have **launched** genetically engineered foods on the market have recently come under severe criticism for selling products which have not been adequately tested for health safety. Some critics say that genetically engineered foods can be dangerous as there is no certainty about the ultimate effect of gene manipulation and the alterations made in the new products.

Those who hope to resolve the problem of global starvation with the use of genetic engineering are sure to **encounter** even more obstacles. The problem will not be solved as long as the real sources are not addressed. Poverty and economic limitations must be dealt with first if people in poor countries are to be able to buy a sufficient amount of food. And if genetically engineered foods will not be targeted at the suffering populations for **humane** reasons, they may land on the shop shelves in developed countries for commercial reasons. In this case, it may make sense to get accustomed to reading labels on food packages to make sure to what extent we are affected by the new **obscure** technologies.

1. What makes the problem of famine in Third World countries so difficult to solve?
2. What happens to the overproduced food in wealthy countries?
3. If genetic engineering fails, what other solutions can there be to global starvation?
4. Why may genetically engineered foods be considered dangerous to humans?
5. Do you make a point of reading labels on food packages? Does it make sense?

VOCABULARY PRACTICE

Match the words with their definitions

1	**advocate**	a	someone who has the same qualities as someone else
2	**aid**	b	something that worries someone
3	**ample**	c	notorious lack of something
4	**concern**	d	(price/amount of money) much higher than it should be
5	**constraint**	e	help in form of food or money given to people in need
6	**counterpart**	f	someone who is against someone else's plans or ideas
7	**dispute**	g	money given to a charity organization as help
8	**donation**	h	profit, result, effect
9	**exorbitant**	i	more than enough, sufficient
10	**obscure**	j	the result of an action or discussion
11	**opponent**	k	a restriction or limitation
12	**outcome**	l	death or suffering caused by lack of food
13	**shortage**	m	a disagreement about something important
14	**starvation**	n	someone who supports or speaks in favour of something
15	**yield**	o	unknown, unimportant, hard to understand

Insert the verbs in the correct phrases

abolish **accomplish** **alter** **alleviate** **effect**
encounter **label** **launch** **resolve** **work out**

1. Regular food aid transports are sent to the regions where the famine has struck the most to ..... the suffering of the people in need.
2. The government commission are to ..... the dispute between the management and the workers in the shipyard.
3. For thirty years the citizens of the country have fought to ..... the authoritarian rule.
4. The workers of the Red Cross ..... numerous obstacles when they first arrived in Kongo, the most difficult of which was the authorities' hostility.
5. The rescue mission could not be ..... due to unfavourable weather conditions.
6. It's up to the developed countries to ..... a solution to the problem of AIDS in Africa.
7. The radical steps against corruption taken by the new government have ..... the nature of politics in the country.
8. Because of his approval of the government-controlled economy, the politician was ..... as communist.
9. The new law has been accepted by the parliament, but we still have to wait a few months before the changes are ..... .
10. The social organizations are planning to ..... an anti-drug campaign aimed at young people.