

Biology - 10th Class Biology English Medium Chapter 17 Preparation

Q1. Define biotechnology.

Ans 1: The branch of biology which deals with study of use of living organisms in processes for manufacture of useful products or for services.

Q2. What is fermentation ?

Ans 1: Fermentation is the process in which there is incomplete oxidation -reduction of glucose . Fermentation has been in the knowledge of man since centuries , but it was believed that it is purely a chemical process

Q3. Define biotechnology .

Ans 1: The branch of biology which deals with study of use of living organisms in processes for manufacture of useful products or for service
Fermentation is the old biotechnology and genetic engineering in modern biotechnology

Q4. How insulin is synthesized commercially ?

Ans 1: Human insulin genes was transferred into bacteria . The genetically modified bacteria become able to synthesize insulin .
Diabetics are now receiving this insulin

Q5. What is genetic engineering?

Ans 1: Genetic engineering i.e. the artificial synthesis, modification, removal, addition and repair of the genetic material are considered as modern biotechnology. It is done to alter the characteristics of organisms.

Q6. What is carbohydrate fermentation ?

Ans 1: The initial steps of carbohydrate fermentation are identical to those of respiration . The process begins with glycolysis , in which the glucose , molecule is broken down into two molecules of pyruvic acid

Q7. Name any two industrial products made by fermentation.

Ans 1: Cereal products , Dairy products.

Q8. What are beta endorphins ?

Ans 1: It is a pain killer produced by brain in human but it can also be by genetic engineering

Q9. Define biotechnology ?

Ans 1: Biotechnology is defines as the use of living organisms in processes for the manufacture of useful products or for services . Although the term biotechnology is new , the discipline itself is very old . Fermentation and other such processes , which are based on the natural capabilities of organisms , are commonly considered as old biotechnology

Q10. What is batch fermentation ?

Ans 1: In this process, tank of fermenter is filled with raw materials to be fermented . The temperature and pH is properly adjusted and nutrients are added . All material is sterilized . Pure culture of micro organisms is added to fermenter are taken out . Fermenter is cleaned and the process is repeated
