

## Biology - 10th Class Biology English Medium Chapter 17 Preparation

Q1. 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

Q2. 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.

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Q4. What is fermenter?

**Ans 1:** Fermenter is a device that provides optimum environment to microorganisms to grow into a biomass, so that they can interact with a substrate, forming the product. Fermentation is carried out to fermenters.

Q5. In biotechnology , What is meant by genetically modified organism .(GNO) How is it made ?

**Ans 1:** GMO are provided suitable culture medium for growth to give as much copies of the genes of interest as needed

Q6. Define fermentation in terms of biotechnology

**Ans 1:** In biotechnology the term 'fermentation means the production of any product by the mass of culture of micro organism

Q7. How Insulin is synthesized commercially?

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

Q8. What is lactic acid fermentation ?

**Ans 1:** The process of fermentation in which pyruvic acid is reduced to lactic acid . It is carried out by streptococcus , lactobacillus species

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Q10. 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

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