

Name: _____						
Subject: Biology		Class: 10 <sup>th</sup>	Time: 80 minutes	Total Marks:	40	
Chapter No.8		MJDexpert.com			Obtained marks	

**Note:** Please attempt any 10 short questions from Question 2. Also, attempt both parts (a and b) of Question 3. Cutting and removal of any content is strictly prohibited.

### Objective-Section

**Q. 1 Encircle the correct answer. (10x1=10)**

1. When was the work on Genetic Engineering started?  
A) 1930 B) 1940 C) 1944 D) 1970
2. Treatment through genes is called:  
A) Gene Therapy B) Chemo Therapy C) Radio Therapy D) Physio Therapy
3. Alcoholic fermentation is carried out by:  
A) Virus B) Bacteria C) Yeast D) Algae
4. The microorganism used in the formation of Ethanol is:  
A) Aspergillus B) Saccharomyces C) Bacillus D) Mutation
5. A fermenter may hold \_\_\_\_\_ of the growth medium:  
A) 20 liters B) Hundreds of liters C) Thousands of liters D) Lacs of liters
6. Enzyme which is used to cut the gene of interest is:  
A) Endonuclease B) Ligase C) Amylase D) Lipase
7. Human insulin gene was transferred into:  
A) Yeast B) Bacteria C) Virus D) Algae
8. \_\_\_\_\_ is an antiviral protein:  
A) Urokinase B) Thymosin C) Insulin D) Interferon
9. How much protein is produced by 50 kg of yeast in 24 hours?  
A) 100 tons B) 150 tons C) 200 tons D) 250 tons
10. Single-cell protein can be obtained from:  
A) Insect B) Cow C) Algae D) Bird

### Subjective-Section

**Q.2 Write short answers of any ten of the following questions: (10x2=20)**

- i. Write down the names of major techniques in biotechnology.
- ii. Explain the Human Genome Project.
- iii. Write two basic types of the fermentation of carbohydrates.
- iv. Define Fermentation in biotechnology.
- v. Write some uses of Formic acid.
- vi. Define Fermenter. Give its two types.
- vii. What is genetic Engineering?
- viii. Write any two objectives of Genetic Engineering.
- ix. Write any two basic steps in genetic engineering.
- x. What is Beta-endorphin? What is its function?
- xi. Write any two characteristics of transgenic animals.
- xii. What is novel protein or Mini-Food?

**Q.No.3 Long Question:**

**(5+5=10)**

- a) Describe any eight achievements of Genetic Engineering in detail.
- b) Define fermentation. Describe two basic types of fermentation.