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**BFTFTC 283**

**Choice Based Credit System IV Semester B.Sc. (Food Technology) Degree  
Examination, September 2022  
(2020 – 21 Batch Onwards)  
FOOD BIOTECHNOLOGY**

Time : 3 Hours

Max. Marks : 80

**PART – A**

1. Answer in brief on **any ten** of the following. **(10×2=20)**
- Define Food Biotechnology.
  - P.C.R.
  - What are transgenic animals ? Give examples.
  - List any two uses of algae as feed.
  - Translation.
  - Give any four examples for fermented cereal products.
  - Cloning vectors.
  - Genes.
  - E.P.A.
  - Dot blotting assays.
  - Genetically modified foods.
  - Lactic acid bacteria.

**PART – B**

Answer **any four** of the following choosing **one full** question from **each** Unit. **(4×15=60)**

**Unit – 1**

2. a) Write a note on use of DNA hybridisation in food industry. **(3+5+7)**
- Explain about the various applications of recombinant proteins.
  - Explain modern biotechnology in detail.

OR

P.T.O.



3. a) Write a note on Central Dogma of molecular biology. **(3+5+7)**  
b) Explain about the manipulation of gene expression in eukaryotic systems.  
c) Explain the tools of the trade in biotechnology in detail.

**Unit – 2**

4. a) Write a note on the uses of algae as fodder. **(4+4+7)**  
b) List out the advantages of transgenic plants.  
c) Explain in detail on the importance of gene cloning in the food industry.

OR

5. a) Write a note on trough method used for Algae production. **(4+4+7)**  
b) Write a note on the role of mycorrhizae in forestry.  
c) Explain in detail about the detection and screening methods of rDNA.

**Unit – 3**

6. a) Write a note on monoclonal antibodies. **(4+4+7)**  
b) List out the advantages of whole cell immobilisation.  
c) Explain in detail on chromosome manipulation in aquaculture.

OR

7. a) Write a note on B.O.D. of dairy wastes. **(4+4+7)**  
b) Write a note on western blotting technique.  
c) Explain in detail the methods used in genetic engineering of animals meant for food.

**Unit – 4**

8. a) Write a note on FDA. **(3+5+7)**  
b) Explain about single cell proteins.  
c) Describe the various ethical issues related to genetic modification of dairy microbes.

OR

9. a) List out the characteristics of genetic modifications of host plants. **(4+4+7)**  
b) Write a note on public health concerns that arise with the use of genetically modified foods.  
c) Explain in detail on the use of genetically modified organisms for production of organic acids.
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