

Total number of printed pages:02

Programme(UG)/VI/UFET613

2025

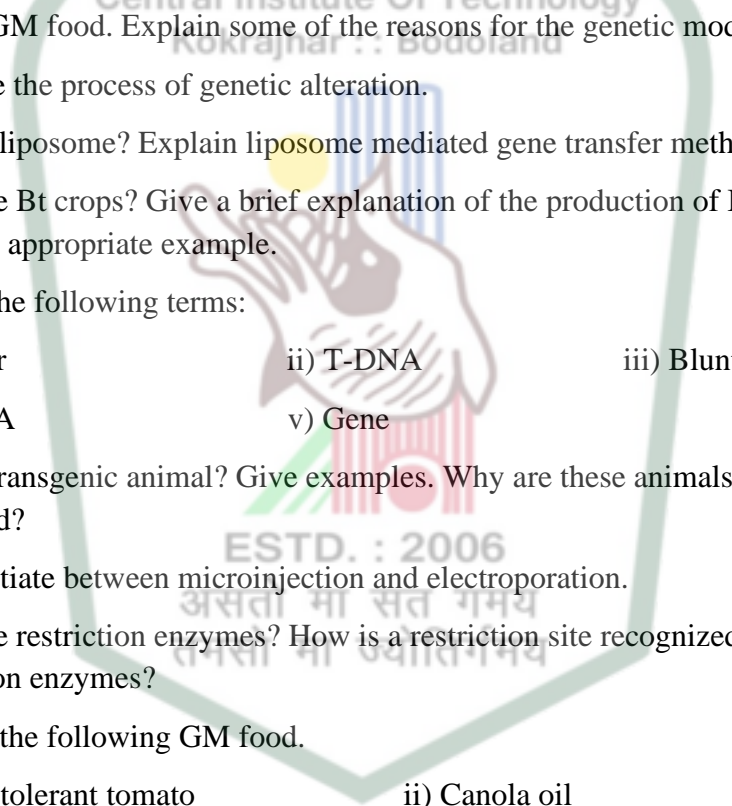
Genetically Modified Foods

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

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1. a) Define GM food. Explain some of the reasons for the genetic modification. 3+5
b) Describe the process of genetic alteration. 12
2. a) What is liposome? Explain liposome mediated gene transfer method. 10
b) What are Bt crops? Give a brief explanation of the production of Bt crops using an appropriate example. 4+6
3. a) Define the following terms: 2x5
i) Vector ii) T-DNA iii) Blunt end
iv) rDNA v) Gene
- b) Define transgenic animal? Give examples. Why are these animals being produced? 2+2+6
4. a) Differentiate between microinjection and electroporation. 10
b) What are restriction enzymes? How is a restriction site recognized by the restriction enzymes? 2+8
5. a) Explain the following GM food. 5+5
(i) Cold tolerant tomato ii) Canola oil
- b) Explain the labelling and regulations of GM food. 10
6. a) Explain the important steps involved in molecular cloning using bacterial transformation. 12
b) What is antisense technology? Give applications of antisense technology for crop improvement. 8

7 a) Write brief notes on: (any four)

4x4

i) Biolistics

ii) Flavr Savr tomato

iii) Golden rice.

iv) PEG

v) Silicon Carbide fibre

b) Give important characteristics of plasmid.

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