Total Number of printed pages = 3

19/6th Sem/UFET 613

2022

GENETICALLY MODIFIED FOODS

Full Marks – 100

Time – Three hours

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

Attempt any *five* questions.

1. (a) Define GM food. Explain some of the reasons for the genetic modification. 8

   (b) Explain with suitable diagram and how genetic modification is done. 12

2. (a) What are Restriction enzymes ? Give examples with its recognition sequence. 8

   (b) What is genetically modified food labelling ? How are GM foods regulated ? 6+6=12

[Turn over

3. (a) Define the following terms any *four* : 3×4=12

(a) Plasmid

(b) Transgene

(c) Nutrient medium

(d) Biopharming

(e) T-DNA.

(b) Define transgenic animal ? Give examples. Why are these animals being produced ? 8

4. (a) Explain any two physical methods of gene transfer. 10

(b) What are transgenic bacteria ? Illustrate using any one example. 10

5. (a) What are Bt crops ? Explain in brief about how they are produced with a suitable example ? 10

(b) What is rDNA technology ? Write the important applications of rDNA technology in the field of agriculture. 10

6. (a) What are the main purposes in the production of transgenic plants ? Mention some of the important advantages of GM foods. 10

(b) What is a retrovirus ? Explain retrovirus mediated gene transfer technique in animals. 10

7. Write short notes on any *four* : 5×4=20

(a) Agrobacterium tumefaciens

(b) Golden rice

(c) Polyethylene glycol

(d) Transgenic fish

(e) hGH.