

TKN/KS/16 – 5926

Final Sixth Semester B. Sc. Examination

MICROBIOLOGY

Paper - II

(Biotechnology)

Time : Three Hours]

[Max. Marks : 50

N. B. : (1) All questions are compulsory and carry equal marks.
 (2) Draw diagrams wherever necessary.

1. Describe different types of vectors used in biotechnology.

OR

What is PCR technique ? Discuss its applications. 10

2. Describe in detail production of Salk vaccine.

OR

Describe in detail the production of insulin. 10

3. (a) Enlist different types of biosensors and describe any one. 5
 (b) Describe the types of biopesticides and their applications. 5

OR

(c) Discuss the technique of protoplast fusion. 5

(d) Write a note on Nano-biotechnology. 5

4. Write a note on :—

(a) Genetically modified food.
 (b) BT cotton.
 (c) Production of Soya sauce.
 (d) Miso.

$4 \times \frac{1}{2}$

OR

Write a note on :—

(a) Knock out mice.
 (b) Milching animals.
 (c) Dolly sheep.
 (d) Sufu.

$4 \times \frac{1}{2}$

5. Solve any **ten** :—

(i) What is blunt end ligation ?
 (ii) What is gene library ?
 (iii) Give any two applications of DNA fingerprinting.
 (iv) What are edible vaccines ?
 (v) What is ATS ?
 (vi) Define monoclonal antibody.
 (vii) What are biochips ?

- (viii) Give any two examples of biofertilizer.
- (ix) Give any two ethical objections against biotechnology.
- (x) Define transgenic plant.
- (xi) Define transgenic animal.
- (xii) Why certain food items are called oriental.
Fermented food ?