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NB—28—2023

FACULTY OF SCIENCE

B.Sc. (BT) (Third Year) (Fifth Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(New Pattern)

BIOTECHNOLOGY

Paper-[DSEBT-4E-II]

(Medical Biotechnology)

(Friday, 8-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—3 Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) Draw neat and well labelled diagrams if necessary.

1. Explain in detail production and applications of plant based vaccines. 15

Or

(a) Explain the concept of cell based vaccines and give examples. 8

(b) Explain the concept of reverse vaccinology. 7

2. Describe in detail production of monoclonal antibodies with potential for diagnosis. 15

Or

(a) Write about diagnosis of diseases by using ELISA. 8

(b) What is western blot and how does it work ? 7

P.T.O.

3. Write definition, types and properties of stem cells. 15

Or

(a) How do scaffolding protein's function in cellular communication. 8

(b) Explain the concept and advantages of tissue engineering. 7

4. How do some viruses cause cancer ? Explain with examples. 15

Or

(a) Define metastasis and explain steps of metastasis. 8

(b) Write symptoms and treatment of AIDS. 7

5. Write short notes on (any *three*) : 3×5=15

(a) Apoptosis

(b) Oncogenes

(c) Transfusion of immuno-competent cells

(d) Symptoms of SCID in a child

(e) Defects in complement system.