WT—102—2024

FACULTY OF SCIENCE AND TECHNOLOGY

M.Sc. (Second Year) (Third Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

BOTANY

Paper XII

(Molecular Biology and Biostatistics)

(Thursday, 12-12-2024)   **Time : 2.00 p.m. to 5.00 p.m.**

Time—Three Hours   *Maximum Marks*—75

Note :— (*i*)   Attempt *all* questions.

  (*ii*)   *All* questions carry equal marks.

  (*iii*)   Illustrate your answers with suitable diagram, scheme etc.

1.   Explain Cot curve. Give Cot 1/2 values and its significance.   15

Or

Describe structure of nucleic acids in detail.

2   Describe regulation of gene expression in prokaryotes.   15

Or

Describe enzymes of DNA replications and their role.

P.T.O.

3. Describe in brief the composition and assembly of Ribosomes. 15

Or

Describe different types of mobile DNA in detail.

4. Describe binomial distribution with suitable example. 15

Or

Describe mean deviation and standard deviation with suitable example.

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

(*i*) Forms of DNA

(*ii*) Structure and role of introns

(*iii*) Bacterial conjugation

(*iv*) Confidence interval.