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NY—102—2023

FACULTY OF SCIENCE

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

NOVEMBER/DECEMBER, 2023

(CBCS/New Pattern)

BOTANY

Paper XII

(Molecular Biology and Biostatistics)

(Thursday, 7-12-2023)

Time : 2.00 p.m. to 5.00 p.m.

Time—Three Hours

Maximum Marks—75

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

(ii) All questions carry equal marks.

(iii) Draw well labelled diagrams wherever necessary.

1. Describe in detail structure and physico-chemical properties of Nucleic acids. 15

Or

Explain prokaryotic transcription.

2. Give a detailed account of enzymes of DNA replication and their role. 15

Or

Explain eukaryotic gene regulation.

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3. Elucidate post-transcriptional modifications. 15

Or

Give a detailed account of genetic transformation, conjugation and transduction in Bacteria.

4. Elucidate difference between parametric and non-parametric statistics. 15

Or

Explain in detail probability distribution and its types.

5. Write short notes on any *three* out of four : 15

(a) RNA polymerase

(b) Enhancers

(c) Transposons

(d) Hypothesis tests.

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