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NY—61—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

BOTANY

Paper-XIV

(Biochemistry and Plant Metabolism)

(Wednesday, 6-12-2023)

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

Time—3 Hours

Maximum Marks—75

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks

(iii) Draw well labelled diagrams wherever necessary.

1. Give a detailed account on different forces involved in stabilization of protein molecule. 15

Or

Describe in detail the process of protein translation.

2. What are co-enzymes ? Give an account on relation between vitamins and co-enzymes. 15

Or

Derive Michaelis-Menten equation for determination of enzyme kinetics 15

3. Describe in detail mechanism of biological nitrogen fixation. 15

Or

Give an account on role, sources and mechanism of sulphur metabolism in plants.

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4. Describe in detail mechanism of β -oxidation of fatty acid. 15

Or

What is meant by Gluconeogenesis ? Describe in detail its mechanism with biological significances.

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

(a) Transamination

(b) Active sites

(c) Leghaemoglobin

(d) Role of carbohydrates in cell wall synthesis.

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