This question paper contains **2** printed pages]

LB—59—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2023

(New/CBCS Pattern)

BOTANY

Paper-XVI

(Biochemistry and Plant Metabolism)

(Thusday, 4-5-2022) **Time : 02.00 p.m. to 05.00 p.m.**

Time—Three hours *Maximum Marks*—75

N.B. :— (*i*) Attempt *all* questions

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

(*iii*) Draw well labelled diagrams wherever necessary.

1. Describe in detail mechanism of translation of protein. 15

Or

Give an account on primary, secondary, tertiary and quarternary structure of protein.

2. Describe in detail Michaelis-Menten equation for the determination of enzyme kinetics. 15

Or

In context with enzyme, explain isozyme, ribozyme and abzyme.

3. Give an account on role sources and mechanism of phosphorus metabolism in plants. 15

P.T.O.

Or

Explain in detail mechanism of biological nitrogen fixation.

4. Describe in detail mechanism of gluconeogenesis and add a note on its biological significance. 15

Or

Give an account on structure and chemical properties of Sucrose and Cellulose.

5. Write short notes on any *three* of the following : 15

(*a*) Hydrogen bonding

(*b*) Allosteric enzymes

(*c*) Root nodule

(*d*) Interconversion of aldehyde and ketose sugar.