

This question paper contains 2 printed pages]

SB—11—2022

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MAY/JUNE, 2022

(CBCS/New Pattern)

BOTANY

Paper-XIV

(Plant Metabolism, Biochemistry & Biotechnology)

(Tuesday, 7-6-2022)

Time : 10.00 a.m. to 12.30 p.m.

Time— 2½ Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Figures to the right indicate full marks.

(iii) Illustrate your answers with suitable labelled diagram wherever necessary.

1. Describe Kreb's cycle in detail. 15

Or

(a) Describe nomenclature and IUB classification of enzymes. 8

(b) Describe process of ammonification and nitrification in Nitrogen cycle. 7

2. Describe Agrobacterium mediated gene transfer in plants. 15

Or

(a) Describe application of tissue culture in production of secondary metabolites. 8

(b) Describe somatic hybridization. 7

P.T.O.

3. Write short notes on (any two) :

10

- (a) Ultrastructure of mitochondrion
- (b) Sources and forms of nitrogen
- (c) Protoplast culture
- (d) NCBI.