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NA—116—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

MICROBIOLOGY

Paper-VIII

(Nitrogen Metabolism)

(Thursday, 21-12-2023)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (1) Attempt *all* questions.

(2) Draw well labelled diagram wherever necessary.

1. Explain in detail biochemical mechanism of nitrogen fixation. 15

Or

Write notes on :

(a) Explain in detail oxidation of ammonia. 8

(b) Describe in detail microbiology of denitrification with respect to nitrogen cycle. 7

2. Describe in detail biosynthesis of Purines. 15

Or

Write notes on :

(a) Write a note on biosynthesis of aromatic amino acids. 8

(b) Write in detail biosynthesis of Histidine. 7

P.T.O.

WT

(2)

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3. Write short notes on (any *two*) :

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- (a) Role of oxaloacetate
- (b) Catabolism of Nucleotide
- (c) Nitrification
- (d) Nitrogenase.

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