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NA—115—2023

FACULTY OF SCIENCE AND TECHNOLOGY

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

NOVEMBER/DECEMBER, 2023

(New/CBCS Pattern)

MICROBIOLOGY

Paper-XIII

(Microbial 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 diagrams wherever necessary.

1. What is enzyme inhibition ? Explain in detail competitive and non-competitive enzyme inhibition. 15

Or

Write on the following :

(a) EMP pathway 8

(b) Role of nucleotides in metabolism. 7

2. Define fermentation. Explain in detail mixed acid fermentation. 15

Or

Write on the following :

(a) Oxidative phosphorylation with respect to Chemiosmotic theory. 8

(b) Components of bacterial RETC. 7

P.T.O.

WT

(2)

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

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- (a) Allosteric enzymes
- (b) Importance of TCA cycle
- (c) Aerobic respiration
- (d) Homolactic acid fermentation.

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