

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. Honours (Microbiology) (Sem-2)
MICROBIAL PHYSIOLOGY AND METABOLISM

Subject Code : BSMB-207-19

M.Code : 79878

Date of Examination : 02-06-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write Briefly :

- a) What do you mean by continuous culture?
- b) What do you mean by group translocation?
- c) What is fermentation?
- d) What is the effect of temperature on microbial growth?
- e) Differentiate between Phototrophy and Chemotrophy.
- f) What is P:O Ratio?
- g) What is secondary transport?
- h) What do you mean by Denitrification?
- i) Define Methanogenesis.
- j) Define Microbial Biofilms.

SECTION-B

2. Discuss the various factors which are affecting microbial growth.
3. What is microbial mobility? Give a brief account on organs and its functions,
4. Write a note on TCA Cycle.
5. What are the components of respiratory chain?
6. Describe in detail mechanism of photosynthesis.

SECTION-C

7. Explain in detail the process of Biological Nitrogen Fixation. How do nitrogen fixers protect their nitrogenase from oxygen toxicity?
8. Discuss the fate of pyruvate in aerobic respiration.
9. Explain the oxidative pentose phosphate pathway and its significance in microbial metabolism.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.