Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Microbiology) (Sem.–2)

MICROBIAL PHYSIOLOGY AND METABOLISM

Subject Code : BSMB207-19

M.Code : 79878

Date of Examination : 12-07-22

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) Define symport.

b) What do you mean by iron bacteria?

c) Write the significance of phosphoketolase pathway.

d) What is mixed-acid fermentation?

e) What are the basic characteristics of autotrophs?

f) Enlist various inhibitors of electron transport chain.

g) Define facilitated diffusion.

h) What is the significance of glycolysis in microbes?

i) Give a brief idea about microbial biofilms.

j) Define batch cultures.

SECTION-B

2. Describe how microbial growth is affected by environment?

3. Differentiate between primary and secondary active transport.

4. Discuss the various components of respiratory chain.

5. Describe the metabolism of starch by bacteria.

6. Write a short note on organs involved in microbial mobility along with their functions.

SECTION-C

7. Explain the complete process of TCA cycle in microbes including its location, significance and energetics.

8. Explain in detail about dissimilatory and simmilatory nitrate reduction.

9. Describe the complete mechanism of lactic acid fermentation.

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.