QP CODE: 23104776

23104776

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

B.Sc Zoology and Industrial Microbiology Model III Double Main

Core Course - ZI1CRT03 - MICROBIAL PHYSIOLOGY

2017 Admission Onwards

D69F2B22

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Microbial Nutrition
2. Solidifying agents
3. Replication
4. Closed system
5. Facultative anaerobes
6. Green sulphur bacteria
7. Photosynthetic apparatus in bacteria
8. Photophosphorylation
9. PP Pathway
10. Fermentation
11. Transamination
12. How is oxygen tension regulated in the vicinity of nitrogen fixation?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Distinguish between passive transport and facilitated diffussion.
14. Explain bacterial enumeration methods.
15. Explain bacterial quantitation methods based on SPC,Microscopic and Turbidometry.
16. Enlist and explain mode of cell division in bacteria.
17. Explain mechanism involved in Cyclic and non-cyclic photophosphorylation.
18. What are the steps invoved in aerobic and anaerobic glycolysis?
19. Distinguish between PPP and ED pathway.
20. Discuss homolactic and heterolactic acid fermentation in bacteria.
21. Write note on nitrogen cycle.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Distinguish passive diffussion and faciliated diffussion?Give a brief account on active transport and group transliocation.
23. Write an essay on steps involved in spore formation.
24. Explain the steps involved in tricarboxylic acid cycle.
25. What is nitrogenase enzyme? Write a note on nitrification,denitrification and ammonification.

(2×10=20)