

Seat No. : _____

AJ-102

April-2023

B.Sc., Sem.-IV

204 : Microbiology

Time : 2:30 Hours]

[Max. Marks : 70

- Instructions :**
- (1) All questions carry equal marks.
 - (2) Draw figures wherever necessary.
 - (3) Write correct question number against each answer.
 - (4) Figures to the right indicate marks.

1. Write a note on cell wall and cell membrane of archaebacteria. **14**

OR

- (A) Describe salient features of halophiles. **7**
- (B) Explain the characteristics of thermophilic S^o metabolizer. **7**

2. Discuss the anoxygenic photosynthetic bacteria. **14**

OR

- (A) Give important features of *Nitrobacter*. **7**
- (B) Enlist distinct characteristics of colourless sulphur bacteria. **7**

3. Give a brief outline on family *Enterobacteriaceae*. **14**

OR

- (A) Explain characteristics of spiral bacteria. **7**
- (B) Describe characteristics of genus *Rickettsia*. **7**

4. Write a detailed account for Gram positive irregular rods. **14**

OR

- (A) Describe significant characteristics of endospore forming bacteria. **7**
- (B) Write a Note on *Mycobacterium*. **7**

5. Answers the following : (any **Seven**)

14

- (1) Give two differences between DNA of archaea and bacteria.
 - (2) Write two important characteristics of methanogens.
 - (3) What are hyper thermophiles ? Write one example.
 - (4) Enlist two properties of oxygenic photosynthetic bacteria.
 - (5) What are chemolithotrophic bacteria ? Write example of iron bacteria.
 - (6) Give two distinct characteristics of *Aquaspirillum*.
 - (7) Write two examples of curved rods.
 - (8) Give two examples of pigment producing Gram negative bacteria.
 - (9) Write two unique features of *Vibrio*.
 - (10) Enlist two examples of Gram positive non-filamentous rods.
 - (11) Write two distinct characteristics of *Nocardia*.
 - (12) Define fruiting bodies and myxospores.
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