



RAN - 2103000202030064

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**F. Y. B. Sc. (Sem. - II) Examination April - 2023**

**Microbiology : MB - 201**

**Procaryotic and Archaeal Cell Structure**

**Time: 2 Hours ]**

**[ Total Marks: 50**

**सूचना : / Instructions**

(1) नीचे दृष्टविले निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.  
**Fill up strictly the details of signs on your answer book**

Name of the Examination:  
☛ **F. Y. B. Sc. (Sem. - II)**

Name of the Subject :  
☛ **Microbiology : MB - 201 Procaryotic and Archaeal Cell Structure**

Subject Code No.: **2103000202030064**

Seat No.:

Student's Signature

- (2) Figures to the right indicate full marks of the question.  
(3) Draw neat and labelled diagrams whenever necessary.

**Q. 1. Give specific answers. 12**

- State the composition of :
  - Ribosome
  - Outer membrane
- Mention the significance of small size of bacteria.
- Explain the importance of gas vesicles.
- State any two characteristics of teichoic acid.
- Enlist the types of flagellation.
- What do you mean by osmotaxis and aerotaxis?

**Q. 2. Explain / comment on any two of the following: 12**

- Justify: The cytoplasmic membrane is more than just a barrier separating the inside from the outside of the cell.
- Comment: Certain agents can destroy peptidoglycan of bacteria.
- Bacterial inclusions function as energy reserves.

- Q. 3. Answer any two of the following: 16**
- a. Explain in detail the response of bacteria to different chemicals.
  - b. Discuss the various bacterial cell morphologies with examples.
  - c. What is endospore? Describe the stages that transform an endospore into an active vegetative cell.

- Q. 4. Write short note on any two of the following: 10**
- a. Mechanism of gliding motility in bacteria
  - b. Nucleoid
  - c. Differentiate: Gram positive bacterial cell wall & Gram negative bacterial cell wall.
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