



RAN - 2103000204020115

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**B. Sc. (Sem. - IV) Examination April - 2023**

**Bioscience (Microbiology)**

**BS - 401 : Microbial Cytology and Physiology**

**Time: 2 Hours ]**

**[ Total Marks: 50**

**सूचना : / Instructions**

(1)

नीचे दृश्यावलोकन निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.  
**Fill up strictly the details of signs on your answer book**

Name of the Examination:

**B. Sc. (Sem. - IV)**

Name of the Subject :

**Bioscience (Microbiology) BS - 401 : Microbial Cytology and Physiology**

Subject Code No.: **2103000204020115**

Seat No.:

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Student's Signature

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

**Q. 1. Give Specific answers.**

**12**

1. Describe in brief F - pili.
2. Explain: Growth curve.
3. Describe in brief lyophilization.
4. What are autotrophs?
5. Define: Germination, Binary fission.
6. Give two examples of facultative anaerobes.

**Q. 2. Write an essay on - Bacterial flagella.**

**14**

**OR**

**Q. 2. Discuss in detail various methods for isolation of pure culture.**

**14**

**Q. 3. Discuss any two of the following. 14**

1. Describe in brief methods for measurement of cell number.
2. Explain in brief differences between cell wall of gram + ve & gram – ve bacteria.
3. Write a note on - Bacterial endospore.

**Q. 4. Write short notes on any two of the following : 10**

1. Structure of bacterial cell membrane.
  2. The mathematics of growth.
  3. Anaerobic cultivation.
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