

**USBCT-C02 - Biochemistry Paper-II**  
**(General Microbiology and Virology)**

P. Pages : 2

Time : Three Hours



**GUG/W/18/11541**

Max. Marks : 50

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1. Describe the endospore formation in bacteria. **10**

**OR**

Write short note on the following.

- a) Bacterial plasmids. **2½**
- b) Bacterial Ribosomes. **2½**
- c) Shape and size of bacteria. **2½**
- d) Slime layer and Capsule. **2½**

2. Explain the principle and technique of Gram staining. **10**

**OR**

Write short note on the following.

- a) Principle of Endospore staining. **2½**
- b) Acid-fast staining. **2½**
- c) Lysogeny. **2½**
- d) General characteristics of Viruses. **2½**

3. What is growth curve? Describe the various phases of a bacterial growth curve. **10**

**OR**

Write note on

- a) Turbidostat. **2½**
- b) Classification of bacteria on the basis of temperature requirement. **2½**
- c) Measurement of growth by viable cell count method. **2½**
- d) Synchronous culture with respect to size. **2½**

4. Classify bacteria on the basis of their nutritional requirements. **10**

**OR**

Write short notes on.

- |  |    |
|--|----|
| a) Antibiotics as chemotherapeutic agents. | 2½ |
| b) Write a note on sterilization.          | 2½ |
| c) Temperature as physical control method. | 2½ |
| d) Sulphonamides.                          | 2½ |

5. Write **any ten** of the following.

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|---|---|
| i) Rod shaped bacteria are called.                                    | 1 |
| ii) Give any one example of gram positive bacteria.                   | 1 |
| iii) What are Fimbriae?   | 1 |
| iv) Name any two stains used in microbiology.                         | 1 |
| v) What are chromogens?   | 1 |
| vi) What are auxochrome?  | 1 |
| vii) Define generation time.  | 1 |
| viii) What is dialysis technique?                                     | 1 |
| ix) What is meant by log phase of growth?                             | 1 |
| x) Define the term Antiseptic agent.                                  | 1 |
| xi) Explain the term food borne infections.                           | 1 |
| xii) Give one example of halogen commonly used in water purification. | 1 |

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