

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

CLASS: BE
BRANCH: BIOTECHNOLOGY

SEMESTER: IV
SESSION : SP/2019

SUBJECT : BT4023 MICROBIOLOGY

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) Define microbiology. Name two microbes. [2]
(b) What do mean by sterilization? What are different types of sterilization methods? [3]
- Q2 (a) What is differential media? Give one example. [2]
(b) Why is staining essential? Discuss the principle of simple staining. [3]
- Q3 (a) What do you mean by batch culture? [2]
(b) Write a short note on growth curve of bacteria. [3]
- Q4 (a) Give a brief account of archaebacteria. [2]
(b) Give the classification of bacteria depending upon their shapes along with one example. [3]
- Q5 (a) What are methanogens? [2]
(b) Discuss the microbiology of sewage. [3]
- Q6 (a) What is air sampling and how is it done? [2]
(b) Discuss any two allergic disorders caused by air microflora. [3]

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