

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

**CLASS: BE  
BRANCH: BIOTECHNOLOGY**

**SEMESTER: III  
SESSION : MO/2019**

**SUBJECT : BE203 MICROBIOLOGY**

**TIME: 2:00 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The total marks of the questions are 25.
  2. Candidates may attempt for all 25 marks.
  3. Before attempting the question paper, be sure that you have got the correct question paper.
  4. The missing data, if any, may be assumed suitably.
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|----|---|-----|
| Q1 | (a) Define air sampling.  | [2] |
| Q1 | (b) Summarize the historical perspective of microbiology.                   | [3] |
|    |   |     |
| Q2 | (a) What is culture media? Give examples.                                   | [2] |
| Q2 | (b) Illustrate Grams staining process.                                      | [3] |
|    |   |     |
| Q3 | (a) Define batch culture.   | [2] |
| Q3 | (b) Schematize with aid of a neat diagram the structure of a typical virus. | [3] |
|    |   |     |
| Q4 | (a) What are thermophiles? Give examples.                                   | [2] |
| Q4 | (b) Discuss archaeobacteria.  | [3] |
|    |   |     |
| Q5 | (a) Define sewage.  | [2] |
| Q5 | (b) Discuss bioleaching giving examples.                                    | [3] |

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