

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: BTECH
BRANCH: BIOTECHNOLOGY

SEMESTER : III
SESSION : MO/2022

SUBJECT: BE203 MICROBIOLOGY

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Define Pure culture. [2]
Q.1(b) Discuss about different types of sterilization techniques [3]
Q.1(c) Why do we stain micro-organisms? What are the different staining methods? [5]
- Q.2(a) Define synchronous culture. [2]
Q.2(b) What do you mean by archaeobacteria? Discuss about the different classes of archaeobacteria. [3]
Q.2(c) Write a short note on the growth curve of bacteria along with the graph of growth curve. [5]
- Q.3(a) Define bioremediation and its types. [2]
Q.3(b) Give a vivid account on bioleaching and its applications. [3]
Q.3(c) Throw some light on industrially important micro-organisms and secondary metabolites. [5]
- Q.4(a) Name at least four methods for storage of agricultural products. [2]
Q.4(b) Enumerate the different types of microbial interactions between microbes and plants and animals with examples. [3]
Q.4(c) Discuss the role of bioinoculants in the fertility of soil. [5]
- Q.5(a) Define necrotrophic pathogens with example. [2]
Q.5(b) Discuss about the microbial flora of healthy human host. [3]
Q.5(c) Describe any two diseases caused by any microbe. [5]

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