

P-307

B. Sc. (Biotechnology) (Part-II) Examination, 2019
BIOTECHNOLOGY
Paper : VI
(Microbiology)

Time : Three Hours][Maximum Marks : 75]

Note : Attempt all questions from Section - A (Multiple choice type questions), seven questions from Section - B (Short answer type questions) and two questions from Section - C (Long / Essay type questions).

10**SECTION - A**[Marks : 1 × 10 = 10]

1. The microorganisms multiply and die in :

(a) Geometric order	(b) Logarithmic order
(c) A-logarithmic order	(d) None of the above

2. Acetobacter aceti converts into acetic acids.

(a) Ethyl alcohol	(b) Glucose	(c) Methyl alcohol	(d) Starch
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3. In bread manufacturing, alcoholic fermentation is carried out by :

(a) <i>Streptococcus thermophilus</i>	(b) <i>Saccharomyces cerevisiae</i>
(c) <i>S. carlsbergensis</i>	(d) <i>Lactobacillus bulgaricus</i>

4. Who accidentally identified antimicrobial action of penicillin ?

(a) Robert Koch	(b) Richard Petri
(c) Alexander Fleming	(d) Lazzaro Spallanzani

5. Which of the following is best suited to get the surface view of an object ?

(a) SEM	(b) TEM
(c) Phase contrast microscope	(d) All of these

6. Which of the following is best to sterilize heat labile solutions ?

(a) Dry heat	(b) Autoclave
(c) Membrane filtration	(d) Pasteurization

SECTION – B

[Marks : $7 \times 5 = 35$]

1. Describe the communications of Louis Pasteur in field of microbiology.
 2. Describe the function and principle of Hot Air Oven.
 3. Write a short note on TEM. 4
 4. Describe the kinds of flagella in bacteria.
 5. Write short note on nutritional requirement of bacteria.
 6. Mention various physical agents used for control of microbes.
 7. Justify : Replica Plate Technique can be used for isolation of Auxotrophic Mutants.
 8. Discuss the role of microbes in food & dairy industries. 3
 9. Define Chemotherapy. Enlist name of *two* chemotherapeutic drugs. 4
 10. Write short note on Serotyping. 2

SECTION - C

[Marks : $2 \times 15 = 30$]

1. Give structure of Peptidoglycan. Compare cell wall of gram positive and gram negative bacteria.
2. Discuss symbiotic nitrogen fixation in detail. 8.
3. Write a detail note on SCP.