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(20517)

Roll No.

B.Sc. (Bio-Tech.)-I Year

NS-3458

B.Sc.(Bio-Tech.) Examination, May 2017

MICROBIOLOGY

(B-104)

(New)

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. What is sterilization? Discuss about various chemicals used for sterilization. 10
2. Define antibiotic. Discuss the production process of penicillin giving a flow chart. 10
3. Write an explanatory note on : 5 each
 - (i) Steps of Pasteur's experiment.

P.T.O.

(ii) T₂ bacteriophage & its multiplication.

4. What is nitrogen fixation? Discuss the process of biological nitrogen fixation giving different nitrogen fixing micro-organisms. 10
5. Write short notes on : 2½ each
 - (a) Autoclave
 - (b) Bacteria as a source of Biopesticides
 - (c) Viral diseases in human beings
 - (d) Serotypes
6. What is electron microscopy? How SEM forms the image of an object? Explain in detail. 10
7. Write in detail on : 5 each
 - (i) Pasteurization
 - (ii) Isolation of auxotrophs
8. What do you mean by Single Cell Protein (SCP)? Discuss its production process. 10

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9. Write short note on the following :

2½ each

(i) PPLO

(ii) Dry heat sterilization

(iii) Symbiosis and antibiosis

(iv) Ionizing radiation sterilization

10. Write an essay on industrial uses of microbes

for the production of dairy products. 10