

B.Sc. - I (NEP) Semester-I
**BSCMI501 - (Core) Microbiology - General Microbiology and Microbial
Techniques**

P. Pages : 2

Time : Three Hours



GUG/S/25/15923

Max. Marks : 40

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well diagrams wherever necessary.

1. Write in detail about contribution of Louis Pasteur and Robert Koch. 8

OR

- a) Write about Koch Postulates. 2
- b) Explain the contribution of Alexander Fleming. 2
- c) Describe the experiment of F. Redi. 2
- d) Explain the work of Selman A. Waksman. 2

2. Explain the Lytic cycle of T₄ Virus. 8

OR

- a) Differentiate between Prokaryotic and Eukaryote cell. 2
- b) Write about structure of Flagella. 2
- c) Explain the structures of viruses. 2
- d) Write about cell wall structure of Gram positive bacteria. 2

3. Explain in detail about working of SEM. 8

OR

- a) Write about procedure of Gram staining.
- b) Explain streak plate method.
- c) Describe any one method of preservation of pure culture.
- d) Write about Dark field microscope.

4. Explain the control of bacteria by physical agents. 8

OR

- a) Describe the microbial control by phenolic compounds.
- b) Give the characteristics of ideal disinfectant.
- c) Explain microbial control by Halogens.
- d) Describe phenol coefficient experiments.

5. Solve **any eight** of the followings.

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- a) Who is the father of microscopy?
- b) What is the contribution of H. G. Khorana?
- c) What is Tyndallization?
- d) What is endospore?
- e) What is capsule?
- f) What is archaebacteria?
- g) What is resolving power?
- h) Give the example of selective media?
- i) What is the pH of nutrient agar medium
- k) What is microbicidal?
- l) What is oligodynamic action?
- m) What is Thermal Death Point (TDP) .
