

Semester - II-Microbiology

Paper Name: Basic bacteriology

Paper Code: 20609

Time: 2:30 Hours

Total Marks: 70

**Instructions:** (a) Figure to the right indicates total marks of respective question.  
(b) Draw neat, clean and labeled diagram wherever necessary.

- 1.(a) Explain cytoplasm and cytoplasmic inclusions in detail 07  
1.(b) Write in detail bacterial endospore structure and sporulation 07

OR

- 1.(a) Explain: Flagella 07  
1.(b) Write in detail nuclear material and ribosomes 07

- 2.(a) Describe: Media preparation 07  
2.(b) Gaseous requirements and osmotic pressure as physical requirements for growth of bacteria 07

OR

- 2.(a) Which common ingredients used in media preparation 07  
2.(b) Describe : Nutritional requirements of bacteria 07

- 3.(a) Define pure culture and Explain techniques to obtain pure culture 07  
3.(b) Describe: Culture collection centers and its importance 07

OR

- 3.(a) How to preserve pure culture? 07  
3.(b) Describe: Maintenance of pure cultures 07

- 4.(a) Explain Five kingdom classification in detail 07  
4.(b) Explain principles of binomial system of nomenclature 07

OR

- 4.(a) Discuss: Bergey's manual of systemic bacteriology 07  
4.(b) Discuss: Three domain concept 07

- 5.(a) How dyes are used as microbial control 07  
5.(b) Explain in detail Principles of microbial control 07

OR

- 5.(a) Describe: Heavy metals and gaseous agents as microbial control 07  
5.(b) How halogens and surfactants used as antimicrobial agent 07