

M.Sc. (Biotechnology) (CBCS Pattern) Semester-I
PSBIT102 - Paper-II : Microbiology

P. Pages : 1

Time : Three Hours



GUG/S/25/11147

Max. Marks : 80

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

1. Describe the process of spore formation in bacteria. **16**

OR

a) Write about the contribution of Louis Pasteur in a field of Microbiology. **8**

b) Explain the Whittaker classification system of microorganisms. **8**

2. Explain the principle, working mechanism and application of SEM. **16**

OR

a) Explain the principle and procedure of Gram staining. **8**

b) Explain procedure and mechanism of negative staining technique. **8**

3. Describe the various physical and chemical methods of sterilization. **16**

OR

a) Explain the basic nutritional requirement for the bacterial growth. **8**

b) Write a note on – Growth curve. **8**

4. Describe the various steps involved in Lytic cycle. **16**

OR

a) Explain asexual reproduction in fungi. **8**

b) Write about general characteristics and application of Algae in biotechnology. **8**

5. Write an account on:-

a) Nucleoid. **4**

b) Confocal microscopy. **4**

c) Enrichment media. **4**

d) Symmetry of viruses. **4**
