

S.E. (Biotech) (Rev) Sem - 3

GBGS

28/5/14

Microbiology  
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QP Code : NP-18699

(3 Hours)

22

[ Total Marks : 80

- N. B. : (1) Question No. 1 is compulsory  
(2) Attempt any three questions out of remaining five questions.  
(3) Draw suitable diagrams wherever necessary.

1. Write short note on the following: 20  
(i) Whittaker's five kingdom classification  
(ii) Bacterial chemotaxis  
(iii) Broad spectrum antibiotics  
(iv) Differential Media
2. (a) Explain nutritional requirements of microorganisms. 10  
(b) Explain growth curve of bacteria. 10
3. (a) Explain the difference between batch & continuous culture. 10  
(b) What are antibiotics. Explain the mechanism of their action. 10
4. (a) What is sterilization? Explain physical methods of sterilization. 10  
(b) Explain streak plate method for isolation of pure culture. 10
5. (a) What are bacterial toxins. Explain with examples. 10  
(b) Give a detail about microbial community in soil. 10
6. (a) Explain with flowsheet nitrogen cycle. 10  
(b) Draw a neat labelled diagram of bacterial cell. Explain role of flagella & pili. 10

Con. 11701-14.