

Exam.Code:0907  
Sub. Code: 6292

2074

**B.E. (Bio-Technology) Third Semester  
BIO-312: Microbiology**

**Time allowed: 3 Hours**

**Max. Marks: 50**

**NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.**

*x-x-x*

**Q.1 Answer the following briefly**

- (i) Describe endospores. Name a bacterium which forms them.
- (ii) Differentiate between synchronous and asynchronous growth.
- (iii) Define sterilization, type species.
- (iv) Give 2 differences between cell wall of fungi and bacteria.
- (v) Write a note on Bergey's manual. (2 x5)

**Section A**

**Q2a. Explain Griffith's experiment of 1928.**

- b. Give the structure of Gram-positive cell wall. (5, 5)

**Q3a. Explain growth in bacteria.**

- b. Describe the nutritional diversity among bacteria. (5,5)

**Q4. Detail the different methods of sterilization. (10)**

**Section B**

**Q5. Explain respiration in bacteria. Give examples. (10)**

**Q6. On what basis is characterization of microorganisms done? (10)**

**Q7. Write notes on the following: Phosphorous cycle, Conjugation. (5 x 2)**

*x-x-x*