

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086**  
**(For candidates admitted during the academic year 2015 – 2016 & thereafter)**

**SUBJECT CODE: 15BY/PC/MI14**

**M. Sc. DEGREE EXAMINATION, NOVEMBER 2017**  
**BIOTECHNOLOGY**  
**FIRST SEMESTER**

**COURSE : CORE**  
**PAPER : MICROBIOLOGY**  
**TIME : 3 HOURS**

**MAX. MARKS: 100**

**SECTION – A**

**ANSWER ALL QUESTIONS:**

**20 x 1 = 20**

1. Name the protein present in the flagella.
2. What are chemotrophs?
3. What is binary fission?
4. What is differential media?
5. What are facultative anaerobic bacteria?
6. What are psychrophiles?
7. What are phases of bacterial growth curve?
8. Write the principle of gram-staining.
9. What are saprophytes?
10. What are chlamydo spores?
11. Name the organisms used for citric acid production.
12. Name the microorganism which produces streptomycin.
13. What is the special compound required for glutamic acid fermentation?
14. Name the causative agent for Influenza.
15. What is the mode of transmission of virus for gastroenteritis?
16. What is shigellosis?
17. What is the causative agent of tuberculosis?
18. What is the microorganism responsible for leptospirosis ?
19. What are peplomers?
20. Define prions.

**SECTION – B**

**ANSWER ANY FOUR QUESTIONS EACH ANSWER NOT EXCEEDING 800 WORDS:**

**4 x 10 = 40**

21. Give an account on bacterial growth curve.
22. Explain asexual reproduction in fungi.
23. Write a brief note on general characteristics of phages.
24. Explain the production of glutamic acid.
25. Give the pathogenesis of tuberculosis with its prevention and treatment.
26. Explain the types of culture media.
27. What is syphilis? Add a note on modes of transmission, prevention and control.

**SECTION – C**

**ANSWER ANY TWO QUESTIONS EACH ANSWER NOT EXCEEDING 1500 WORDS:**

**2 x 20 = 40**

28. Explain lytic and lysogenic cycle of phage.
29. Write a detailed account on industrial production of citric acid
30. Explain the causes, transmission and prevention of gastro intestinal tract diseases.
31. Briefly explain the physical and chemical methods of microbial control.

**\*\*\*\*\***