

**B. SC. DEGREE (C.B.C.S.S) EXAMINATION, MARCH 2018****(2015 Admission Regular)****SEMESTER VI - CORE ( ZOOLOGY )****ZY6B11TB - MICROBIOLOGY AND IMMUNOLOGY****Time : Three Hours****Maximum Marks : 60****Part A****I. Answer all questions. Each question carries 1 marks**

1. What is pili
2. Define viable count
3. Name any 2 Pathogenic bacteria and the disease caused by them
4. What are haptens?
5. Define Autoimmunity.

**(5x1=5)****Part B****II. Answer any Five questions. Each question carries 2 marks**

6. Differentiate an enriched media from enrichment media
7. What are porins ? Mention its function
8. Differentiate a total count from viable count
9. Comment on the carriers of infection
10. Comment on the Mycobacterium
11. Distinguish between passive and active immunity.
12. Describe different types of Antigens.
13. Explain briefly the role of cells of immune system in providing immunity.

**(5x2=10)****Part C****III. Answer any Five questions. Each question carries 5 marks**

14. Write Briefly on the different types of special media used for microbial culture.
15. Write briefly on the growth cycle of bacteria
16. Define Cell culture ? Explain the various types of Cell culture
17. Comment on different modes of disease transmission
18. What are vaccines? Briefly explain different types of vaccines.
19. Explain a) Widal test B) ELISA
20. What are Monoclonal antibodies ? Explain Hybridoma technology and its uses.
21. Describe types of graft rejection.

**(5x5=25)****Part D****IV. Answer any Two questions. Each question carries 10 marks**

22. With the help of a labelled diagram explain viral replication . Add a note on viral resistance
23. Describe mechanisms of innate immunity.
24. Write an essay on any 4 clinical applications of Antigen antibody reactions
25. Write an essay on different types of hypersensitivity reactions.

**(2x10=20)**