



Register Number:
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ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27

B.Sc. MICROBIOLOGY – V SEMESTER

SEMESTER EXAMINATION: NOVEMBER 2020

MB -5118 IMMUNOLOGY AND MEDICAL MICROBIOLOGY

Time- 2 ½ hrs

Max Marks-70

This paper contains 2 printed pages and 4 parts

I. Answer any Five of the following.

5x3=15

1. What is artificial passive immunity? Give an example.
2. List three general features of antigen antibody reactions.
3. a) Mention two properties of the complement system.
b) Define a primary infection
4. What is an attenuated vaccine? Give one example each for bacterial and viral.
5. Name the types of grafts and define one.
6. Mention three sources of infection.
7. What is Reynold's Braude Phenomenon?

II. Answer any Five of the following.

5x5=25

8. Tabulate the differences between maternal and secretory immunoglobulins.
9. Write a note on immunotoxins.
10. Draw a neat labelled diagram of the organ that has nurse cells.
11. Tabulate the differences between MHC class I and II.
12. Explain with examples adhesion and biofilms as factors involved in microbial pathogenesis.
13. Explain the structure of the Dengue virus
14. How would you diagnose a person suffering from amoebic dysentery? Add a note on its prevention.

III. Answer any Two of the following.

2x10=20

15. Explain the mechanism of mast cell degranulation.
16. How would you prove that two antigens may be identical, non-identical or partially identical?
17. Explain the pathogenesis of an organism that causes Rice watery stool.

IV. Answer the following.

1x10= 10

18. Carlton, a 6-year-old boy, was playing on a sandy beach with his mother. He began to run along the shoreline when he stepped on the sharp edge of a shell, giving him a deep cut on his foot. His mother washed his foot in the lake and put on his running shoe to take him home. One day later Carlton's foot looked worse. She called you to have a look the foot.

- a) What did you observe? -1
- b) Name the protective mechanism-2
- c) Explain the steps involved in this process. -7