



Register Number:
Date: 5-1-21

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU -27
M.Sc. MICROBIOLOGY - I SEMESTER
MID SEMESTER EXAMINATION: JANUARY 2021
MB 7118 – MICROBIAL DIVERSITY

Time- 2¹/₂hr

Max Marks-70

This paper contains 2 printed page and 4 parts

I. Answer any Five of the following

5 x 3 = 15

1. What does a phylogenetic tree depict?
2. List three applications of extremozymes.
3. Mention the proteins that make up the gas vesicle and give their function.
4. What is fungal dimorphism? Give an example.
5. How is a zygospore and ascospore formed? Give an example for each.
6. List the four properties that define a virus. What is a virion?
7. Most plant RNA viruses encode a movement protein, what is its role in infection?

II. Answer any Five of the following

5 x 5 = 25

8. What is the importance of rRNA in classifying organisms?
9. What are the different methods of sexual reproduction seen in fungi?
10. Give an account of what value do molecular clocks have in phylogenetic analysis.
11. a) How can G+C content be used for taxonomic studies?. - 3
b) List two methods for preserving bacteria.-2
12. Comment on the component of the cell wall and cell membrane of archaea.
13. a) Mention three economic importances of fungi.-3
b) What is the consequence of a quasi species?-2
14. How does lysogeny differ from the lytic cycle ?

III. Answer any Two of the following

2 x 10 = 20

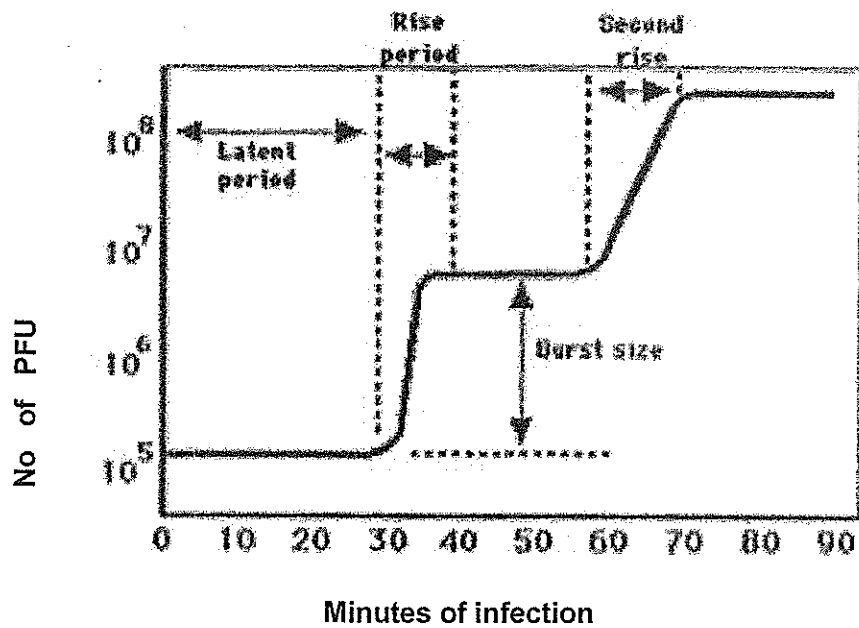
15. Describe the structure and movement of Flagella.
16. List and explain the theories on how life originated on Earth?

17. Explain the structure and components of the fungal cell wall.

IV. Answer the following

1 x 10 = 10

18.



- Name this experiment conducted? -1
- What is the purpose of carrying out this experiment? -1
- List the types of data one can get from such an experiment. -6
- Why do we start the experiment with a low number? -2