



VIT
Vellore Institute of Technology
(Chartered as a University under sections 3 of the U.C.R. Act, 1984)

Final Assessment Test – November/December 2023

Course: BBIT203L - Microbiology

Class NBR(s): 1982 / 1984

Time: Three Hours

Slot: D1+TD1

Max. Marks: 100

KEEPING MOBILE PHONE/SMART WATCH, EVEN IN 'OFF' POSITION IS TREATED AS EXAM MALPRACTICE

Answer any TEN Questions

(10 X 10 = 100 Marks)

1. Write the importance of microscopy in the study of microbiology and describe about any one type of microscope.
2. Describe the historical developments in microbiology quoting relevant inventions and their inventing Scientists.
3. Given a choice to isolate bacteria from environmental samples, how will you proceed? Explain the technique.
4. How will you sterilize microbiological media? Explain your method of choice using a neat sketch.
5. You are asked to culture both fastidious and non-fastidious bacteria in the bacteriology lab; what will be your approach? Classify the different bacterial culture media and list their applications.
6. Is it possible to improve the visibility of bacterial cells in microscopy by staining? Elaborate.
7. You have isolated a novel microorganism that has commercial potential; how will you maintain and preserve for future use? Explain.
8. If you are tasked to extract both primary and secondary metabolites from two different microorganisms; what culture/fermentation methods will you employ for these tasks? Illustrate.
9. Write an essay on the microbial metabolic pathways.
10. Are viruses important in the context of human health? Justify.
11. Do you think microbiological protocols have important roles in biotechnology? Give reasons.
12. What do you think would be probable causes for emerging and re-emerging infections? As a microbiologist how will you mitigate?

