

B.Sc. – MICROBIOLOGY
I Semester End Examination March/April 2022
General Microbiology

Course Code: MB1DSC01
Time: 2 Hours

QP Code:1020
Max Marks: 60

Instructions to candidates:

1) Answer all the sections. Draw diagram wherever necessary.

SECTION-A

I. Answer any 5 of the following.

5x2=10

1. Define Numerical Aperture with the formula.
2. What is disinfection? Give example.
3. What is the role of cytoskeleton?
4. What is the contribution of Alexander Fleming?
5. What are plasmids?
6. Write the structure of Golgi complex.

SECTION-B

II. Answer any 4 of the following.

4x5=20

7. Explain the working principle and construction of dark-field microscope.
8. Write the procedure of capsule staining.
9. Write the structure of endoplasmic reticulum of an eukaryotic cell.
10. Write briefly any 2 methods of preservation of bacterial cultures
11. Explain the different types of reproduction in bacteria.
12. Explain the salient features of fungi.

SECTION-C

III. Answer any 2 of the following.

2x10=20

13. Explain sterilization by dry heat and moist heat.
14. Describe in detail the structure of nucleus.
15. Write the contributions of Louis Pasteur and Robert Koch.
16. Write the structure in detail about the Cell wall of a bacterial cell.

SECTION-D

IV. Answer any 10 of the following

1x10=10

17. Which of the following is the mechanism of action of uv radiation?
 - A. Free radicals
 - B. Breaking of hydrogen bonds
 - C. Dimers formation

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D. None of the above.

18. Extremely fine extracellular structure involved in bacterial cell to cell contact is
A. Flagella B. Pili C. Cilia D. Capsule

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19. Prokaryotic and eukaryotic cells have many differences, but they also share some common features. Which of the following may be found in either type of cell?
- A. Golgi bodies Ribosome C. Mitochondria Nucleus
20. Which of these structures is not a part of the bacterial flagella?
- A. Filament B. Basal Body C. Lamina D. Hook
21. Endoplasmic reticulum without ribosomes is called
- B. Rough endoplasmic reticulum
C. Smooth endoplasmic reticulum
D. Non-Ribosomal Endoplasmic reticulum
E. Nuclear Endoplasmic Reticulum
22. Which of these statements is false regarding lysosome?
- a. They are bound by a single membrane
b. They contain hydrolytic enzymes
c. Lysosomal enzymes are active at a basal Ph
d. None of the above.
23. Which type of the microscope helps in getting the three-dimensional picture of the specimen?
- a. Transmission Electron Microscope
b. Scanning Electron Microscope
c. Compound Microscope
d. Simple Microscope
24. What is the name of the region where double stranded, single circular DNA is found in prokaryotic cell?
- a. Protonucleus B. Nucleus C. Nucleoid D. Nucleoplasm
25. Scientist who disproved theory of spontaneous generation
- a. Koch B. Pasteur C. Jenner D. Hansen
26. The fungi are important ----- of organic matter.
- a. Producers B. Makers C. Decomposers D. Parasites
27. In acid fast staining, the counter stain used is
- a. Crystal violet B. Carbol fuchsin C. Methylene blue D. Nigrosine
28. Which among the following is used to kill pathogens or prevent infection of animal tissues?
- a. Disinfection
b. Bacteriostatic agent
c. Antiseptic
d. None of these.

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