



Avinashilingam Institute for Home Science and Higher Education for Women
 (Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
 Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B
 Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – March 2021
I Semester

Class : I UG
Major : Biochemistry and Biotechnology

Time : 3 Hours
Max. Marks : 100

18BBTC02 Microbiology

Part A
Choose the Correct Answer

10 x 1 = 10

1. Diseases caused by pathogens are called
 - a. deficiency diseases
 - b. infectious diseases
 - c. hereditary diseases
 - d. physiological diseases
2. The minimum distance required for the eye to focus any object is
 - a. 10 cm
 - b. 15 cm
 - c. 20 cm
 - d. 25 cm
3. Which of the following serves as an organelle of locomotion in the bacteria?
 - a. capsule
 - b. fimbriae
 - c. flagella
 - d. slime
4. Gram positive bacteria have
 - a. inner cell membrane
 - b. thin peptidoglycan layer
 - c. thick peptidoglycan layer
 - d. lack peptidoglycan layer
5. Which is often used as carbon sources in culture media?
 - a. Glucose
 - b. Starch
 - c. Cellulose
 - d. Chitin
6. A laboratory culture containing a single species of organism is known as
 - a. mass culture
 - b. pure culture
 - c. broth culture
 - d. stab culture
7. Which method uses for moist heat to eliminate pathogenic microbes in milk and beverages?
 - a. pasteurization
 - b. radiation
 - c. tyndallization
 - d. filtration
8. Which of the following percentage of phenol rapidly kills the vegetative cells of microorganisms?
 - a. 20%
 - b. 10%
 - c. 5%
 - d. 15%
9. Rubella is caused by
 - a. viruses
 - b. bacteria
 - c. fungi
 - d. protozoa
10. Typhoid fever is also known as
 - a. enteric fever
 - b. vesical fever
 - c. hepatic fever
 - d. pneumococcal fever

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Mention the principle and applications of TEM.
(or)
11.b. Write briefly about the microbial effect on organic matter.
- 12.a. Write a note on bacterial flagella.
(or)
12.b. Comment on viral morphology.
- 13.a. How do you isolate a pure culture?
(or)
13.b. Give an account of types of culture media.
- 14.a. Give an account on pasteurization.
(or)
14.b. Comment on tyndallisation.
- 15.a. Write a short note on malaria.
(or)
15.b. Give a brief account on antibiotics.

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Discuss in detail about fluorescence microscopy.
(or)
16.b. Describe the principle, instrumentation and applications of SEM.
- 17.a. Discuss about the morphology and classification of fungi.
(or)
17.b. Describe the chemical composition and characteristics of gram negative bacteria.
- 18.a. Explain the various phases of bacterial growth curve.
(or)
18.b. Describe the various methods for culture preservation.
- 19.a. Describe the mechanism of action of antimicrobial agents.
(or)
19.b. Discuss about any three chemical methods of sterilization.
- 20.a. Write a note on the causes, symptoms, diagnosis and prevention of tuberculosis.
(or)
20.b. Discuss in detail about dengue fever.
