



BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – B.Sc.(BT)-Hons-2022

Course Name – General Microbiology

Course Code - BBTC103

(Semester I)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) In Griffith Experiment of " Transforming principal"

- | | |
|---|--|
| a) S train bacteria gets protected from phagocytosis because they contain capsule and slime layer | b) R train bacteria gets protected from phagocytosis as they contain capsule and slime layer |
| c) S train bacteria gets engulfed by phagocytosis because they contain capsule and slime layer | d) R train bacteria gets engulfed by phagocytosis because they contain capsule and slime layer |

(ii) memorize the name father of Microbiology?

- | | |
|----------------------|---------------------------|
| a) Edwin John Butler | b) Ferdinand Cohn |
| c) Robert Koch | d) Antoni van Leeuwenhoek |

(iii) Which of the following method can be used to determine the number of bacteria quantitatively?

- | | |
|--------------------------------|-----------------|
| a) Spread-plate | b) Streak-plate |
| c) Pour-plate and spread plate | d) Pour plate |

(iv) Recall the name who developed Anthrax vaccine

- | | |
|-----------|------------|
| a) Koch | b) Laveran |
| c) Lister | d) Pasteur |

(v) Bacillus anthracis is catagorized as :

- | | |
|--------------------------|------------------------------|
| a) Cocci | b) Non-spore forming Bacilli |
| c) Spore forming Bacilli | d) Spirilla |

(vi) Streptococcus viridans analysed as :

- | | |
|--------------------------|--------------------------|
| a) Gram-positive cocci | b) Gram-negative cocci |
| c) Gram-positive bacilli | d) Gram-negative bacilli |

(vii) Choose the appropriate vector for sleeping sickness

- | | |
|-------------|---------------|
| a) Housefly | b) Tsetse fly |
|-------------|---------------|

- c) Sandfly
 (viii) Predicted the prevention method from
 a) eating balanced food
 c) drinking boiled water
 (ix) Identify the cluster of polar flagella
 a) Lophotrichous
 c) Monotrichous
 (x) Choose microorganisms can cause fever in humans and can withstand autoclaving?
 a) Endotoxin
 c) Lipopolysaccharide
 (xi) Some hyperthermophilic organisms that grow in highly acidic (pH, 2) habitats belong to the two groups called _____.
 a) Cyanobacteria and Diatoms
 c) Protists and Mosses
 (xii) What is the name of the special hyphal tips through which parasitic fungi absorb nutrients directly from the cytoplasm of the living host?
 a) Haustoria
 c) Constricting ring
 (xiii) Cell containing many nuclei are called:
 a) Coenocyte
 c) Mycelium
 (xiv) Which of the following is true about cell wall of gram-positive bacteria?
 a) It consists of multiple layers
 c) It contains teichoic acids
 (xv) Plasmogamy, the term used for
 a) Fusion of two cell membrane
 c) Fusion of two cell cytoplasm
- d) Fruit fly
 b) eating plenty of fruits
 d) using mosquito nets
 b) Amphitrichous
 d) Petritrichous
 b) Lipid A
 d) Peptidoglycan
 b) Liverworts and Yeasts
 d) Eubacteria and Archaea
 b) Mildew
 d) All of the above
 b) Hyphae
 d) Sporophore
 b) It is thicker than that associated with gram-negative bacteria
 d) All of these
 b) Fusion of two cell wall
 d) Fusion of two cell nucleous

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Analyze the factors affecting the microbial Growth. (3)
3. In which condition Chemical sterilization process is employed? (3)
4. Illustrate the procedure for measurement of Bacterial Growth quantitatively? (3)
5. Validate the procedure for elimination of pathogens from milk by pasteurization process. (3)
6. Compare between Gram-positive and Gram-negative bacteria. (3)

OR

State the Principal and Procedure of Gram Staining (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss molecular postulates of Koch? Why are they important? (5)
8. Describe in brief about the structure of Bacteriophage. (5)
9. Explain the process of transmission of one vector borne diseases. (5)
10. Explain different types of isolation process of microbes (5)
11. Illustrated importance of microbes in food (5)
12. A rich medium is inoculated with a bacterium that divides every 30 minutes. Evaluate the number of bacteria at the end of 50 hours is _____. (5)

OR

Differences between endotoxin and exotoxin.

(5)
