

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
SECOND SEMESTER
MICROBIOLOGY - II
BMLT - 204

(USE SEPARATE ANSWER SCRIPTS FOR OBJECTIVE & DESCRIPTIVE)

Duration: 3 hrs.

Full Marks: 70

Time: 20 min.

[PART-A: Objective]

Marks: 20

Choose the correct answer from the following:

1×20=20

1. Mordant used in grams staining is
 - a. Crystal violet
 - b. Iodine
 - c. Saffranin
 - d. All of these
2. Vibrio cholerae is a motile bacteria, which belong to the group of
 - a. Lophotrichous
 - b. Peritrichous
 - c. Monotrichous
 - d. Amphitrichous
3. Which of the following bacteria lacks cell wall?
 - a. Vibrio
 - b. Leptospira
 - c. Mycoplasma
 - d. Pasteurella
4. Which of the following bacteria bear spore?
 - a. Streptococcus
 - b. Neisseria
 - c. Clostridium
 - d. Mycobacterium
5. Bacteriae seen in grape like clusters are-
 - a. Streptococcus
 - b. Staphylococcus
 - c. Pneumococcus
 - d. Vibrio
6. Virion means
 - a. Infectious virus particles
 - b. Non-infectious particles
 - c. Incomplete particles
 - d. Defective virus particles
7. Bacillus is an example of
 - a. Gram positive bacteria
 - b. Gram negative bacteria
 - c. Virus
 - d. Viroid
8. The Largest virus is
 - a. Parvo virus
 - b. Pox virus
 - c. Rhabdo virus
 - d. None of these
9. The antibody that is first formed after infection is
 - a. IgG
 - b. IgM
 - c. IgD
 - d. IgE
10. In a antigen haptens are
 - a. Immunogenic
 - b. Having high molecular weight
 - c. Antigenic
 - d. None of these

11. The reaction of soluble antigen with antibody is known by
 - a. Precipitation
 - b. Flocculation
 - c. Complement fixation
 - d. Agglutination
12. Which of the following is sexually transmitted disease?
 - a. Tuberculosis
 - b. Anthrax
 - c. Cholera
 - d. Gonorrhoea
13. Intensity of attraction between an antigen and antibody molecule is known as
 - a. Affinity
 - b. Avidity
 - c. Reaction
 - d. None of these
14. How many nuclei a mature amoeba have in their cell?
 - a. One
 - b. Two
 - c. Three
 - d. Four
15. The catalase test is used to differentiate
 - a. Staphylococcus from Neisseria
 - b. Staphylococcus from Staphylococcus
 - c. Gram positives from gram negative bacteria
 - d. Streptococcus from Enterococcus
16. Peptone water and nutrient broth are
 - a. Enriched media
 - b. Enrichment media
 - c. Basal media
 - d. Differential media
17. What is the concentration of agar in solid media
 - a. 3 to 4 %
 - b. 1.5 to 2 %
 - c. 10 to 15 %
 - d. 0.5 to 1%
18. Infective form of *E. histolytica* is
 - a. Cysts
 - b. Precysts
 - c. Trophozoites
 - d. None of the above
19. Which of the followings exhibit yeast-like growth at human body temperatures and mold-like growth at room temperature?
 - a. Yeast-like fungi
 - b. Dimorphic fungi
 - c. Yeast
 - d. Molds
20. Lichens consist of
 - a. White-green algae and fungi
 - b. Blue-green algae and fungi
 - c. Red algae and fungi
 - d. Brown algae and fungi

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(Part-B : Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. What is ELISA? What are the different types of ELISA? Explain them in details. 10

2. a) What is antibody? What are the different types of antibody? Explain the basic structure of antibody. 6+4=10
b) What do you mean by immunity? Explain immunity in details.

3. a) Write in details the principle, procedure and interpretation of gram staining. 5+5=10
b) Write in details the principle, procedure and interpretation of acid fast staining.

4. a) Write a note on morphology and classification of viruses. 5+5=10
b) What are the modes of transmission of viral diseases? Make a table of viral diseases with their causative agents.

5. a) Explain Koch's postulates. 6+4=10
b) Explain the morphological classification with fungi with examples.

6. a) What is Staphylococcus? Describe the morphology and cultural characters of Staphylococcus aureus. 6+4=10
b) Name the toxins & enzymes produced by Staphylococcus aureus.

7. a) What is Botulism? Describe the cause and clinical features of Food Borne Botulism and Infant Botulism. 6+4=10
b) Define different types of protozoans and their features with the help of neat labelled diagrams.

8. a) Define Parasites. Classify parasites on the basis of human infection and Host-Parasite relation (definitions). 6+4=10
b) What are Helminths? Classify helminths according to their morphological structures. What are Ectoparasites? Give examples of two human ectoparasites.

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