

**M.Sc. MICROBIOLOGY**  
**THIRD SEMESTER (SPECIAL REPEAT)**  
**CLINICAL MICROBIOLOGY**  
**MMB-303**  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET**  
**A**

Duration: 3 hrs.

Full Marks: 70

( Objective )

Time: 30 mins.

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

- Which of the following is the major immunoglobulin in human serum, accounting for 80% of the immunoglobulin pool?  
a. IgA  
b. IgD  
c. IgG  
d. IgM
- Which microorganism is responsible for the cause of impetigo disease?  
a. Heliobacter  
b. Aspergillus  
c. Staphylococcus  
d. Escherichia
- Widal is a serological test for:  
a. Tuberculosis  
b. Dengue  
c. Typhoid  
d. Cholera
- Bacterial meningitis is mostly caused by streptococcus pneumonia, it is also called:  
a. Aseptic meningitis  
b. Septic meningitis  
c. Sterile meningitis  
d. None of these
- The identification of bacteria by serologic tests is based on the presence of specific antigens. Which of the following bacterial components is LEAST likely to contain useful antigens?  
a. Capsule  
b. Cell wall  
c. Flagella  
d. Ribosome
- Which of the following CANNOT be used to identify a virus?  
a. Cell culture  
b. Gram staining  
c. Radioimmunoassay  
d. Enzyme immunoassay
- During the examination of ear infection, doctor look at the outer ear & eardrum using an instrument called:  
a. Stethoscope  
b. Catheter  
c. Otoscope  
d. Oximeter
- Which microorganism is responsible for the cause of syphilis?  
a. Virus  
b. *Treponema pallidum*  
c. Streptococcus  
d. *Leptospira interrogans*
- Fungi can be stained by:  
a. Saffranine  
b. Cotton blue  
c. Glycerine  
d. Lactophenol

10. MRSA stands for:
  - a. Methicillin Resistant Streptococcus aureus
  - b. Methane releasing Streptococcus avium
  - c. Methicillin Resistant Staphylococcus avium
  - d. Methicillin Resistant Staphylococcus aureus
11. Which from the following is NOT the symptom of pharyngitis?
  - a. Sneezing
  - b. Fever
  - c. Constipation
  - d. Headache
12. The clinical microbiology laboratory is concerned with:
  - a. Isolation of the organism
  - b. Identification of the organism
  - c. Antimicrobial testing
  - d. All of the above
13. Which organ is affected in Pneumonia disease?
  - a. Liver
  - b. Lung
  - c. Heart
  - d. Kidney
14. Blood agar is an..... Media.
  - a. Basal
  - b. Differential
  - c. Enriched
  - d. All of these
15. UTI disease is caused by:
  - a. Bacteria
  - b. Fungi
  - c. Virus
  - d. Both a & b
16. The isolation of gonorrhoea-causing organism, Neisseria gonorrhoeae by the use of certain antibiotics in media is an example of which of the following?
  - a. Selective media
  - b. Differential media
  - c. Enriched media
  - d. Assay media
17. What type of disease is syphilis?
  - a. Fungal disease
  - b. STD
  - c. Nosocomial
  - d. Food borne disease
18. Which of the following is  $\beta$ -lactam antibiotics?
  - a. Penicillin
  - b. Penam
  - c. Vancomycin
  - d. Bacitracin
19. Otitis media is an infection of:
  - a. Tongue
  - b. Eyes
  - c. Hair
  - d. Ear
20. Which is the LEAST satisfactory for anaerobic specimen collection or transport?
  - a. Aspirates
  - b. Swabs
  - c. Tissues
  - d. Capped syringes

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**( Descriptive )**

Time : 2 hr. 30 mins.

Marks : 50

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

1. Give a detailed account on the causes, clinical symptoms, laboratory diagnosis and prevention of the pharyngitis. 10
2. Discuss the different culture media used in microbiological examination of clinical specimen. 10
3. Write down the basic principles of specimen collection. Also write the guidelines for the collection of specimen from respiratory tract. 10
4. Write briefly: 5×2=10
  - a) MRSA
  - b) PUO (Pyrexia of unknown origin)
  - c) Impetigo
  - d) Syphilis
  - e) MDR-TB
5. Discuss the different types of antimicrobial chemotherapy. 10
6. Describe the diagnostic assays based on molecular biology techniques. 10
7. Write short notes on: 5+5=10
  - a) PCR
  - b) SEM
8. Explain the laboratory diagnosis of UTI by non-culture method. 10

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