

**B.Sc. IN MEDICAL LABORATORY TECHNOLOGY  
(BMLT)**

**Term-End Examination**

**June, 2013**

**BAHI-006 : MICRO-BIOLOGY**

*Time : 3 Hours*

*Maximum Marks : 70*

**PART-A**

Answer *any three* questions :

**10x3=30**

1. Describe the morphology , cultural characteristics and pathogenicity of *Mycobacterium tuberculosis*.
2. Define the terms Sterilization and Disinfection. Describe various methods employing dry heat as means of sterilization with special reference to hot air oven.
3. Describe the morphology , culture characters , biochemical properties, antigenic structure of **Pneumococcus**. Name the diseases caused by *Streptococcus Pneumonia*.
4. Enumerate organism causing bacillary desentery in man. Describe the morphology , cultural characteristics , biochemical reactions and laboratory diagrams of bacillary desentery.

## PART-B

5. Write short notes on *any four* of the following : **5x4=20**
- (a) Bacterial capsule
  - (b) Enriched semi solid media
  - (c) Stoke's method of antibiotic sensitivity testing
  - (d) Albert staining technique
  - (e) Treponema pallidum
6. Write briefly on *any two* of the following : **5x2=10**
- (a) Bacteriophage
  - (b) Differences between Superficial and deep mycoses
  - (c) Bacterial growth curve
  - (d) HIV and AIDS

## PART-C

7. Indicate *True (T)* or *False (F)* for the following :  $1 \times 5 = 5$
- (a) Sabour and dextrose agar (SDA) is a selective medium used for culture of fungi in the laboratory.
  - (b) Meningococci are Gram negative diplococci
  - (c) *Clostridium tetani* is an anaerobic bacterium causing tetanus in man.
  - (d) *Vibrio cholerae* is a comma shaped actively motile gram negative bacterium causing cholera.
  - (e) Elek's test is done to establish the pathogenicity of *staphylococcus aureus*.
8. Choose appropriate answer for the following :  $1 \times 5 = 5$
- (a) \_\_\_\_\_ causes sexually transmitted disease affecting the genitalia.
    - (i) gonococcus
    - (ii) meningococcus
  - (b) \_\_\_\_\_ stain is an example of differential stain most commonly employed in microbiology laboratory.
    - (i) Methylene blue staining
    - (ii) Gram staining

- (c) \_\_\_\_\_ is a commonly employed serological test for diagnosing enteric (typhoid) fever
- (i) Tuberculin test
  - (ii) widal test
- (d) \_\_\_\_\_ are fungi causing skin infection in man and animals.
- (i) Dermatophytes
  - (ii) Dimorphic fungi.
- (e) \_\_\_\_\_ are viruses which infect bacteria.
- (i) Bacteriophage
  - (ii) Retrovirus
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