

B.Sc. IN MEDICAL LABORATORY TECHNOLOGY
(BMLT)

Term-End Examination

December, 2012

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 *corynebacterium diphtheriae*.
2. Define the terms sterilization and disinfection. Discuss the utility of moist heat as a means of sterilization with special reference to autoclaving.
3. Give the morphology and classification of streptococci. Enumerate the various toxins and enzymes produced by *streptococcus pyogenes*. Name the clinical lesions caused by this bacterium.
4. Enumerate organisms causing urinary tract infection. Describe the morphology, culture characteristics, biochemical reactions of *Escherichia coli*.

PART-B

5. Write short notes on *any four* of the following : $5 \times 4 = 20$
- (a) Bacterial flagella
 - (b) Selective semi solid media
 - (c) Kirby Baner method of antibiotic sensitivity testing.
 - (d) Zeihl Neelsen method of (AFB) staining
 - (e) Widal Agglutination test
6. Write briefly on *any two* of the following : $5 \times 2 = 10$
- (a) Candida albicans
 - (b) Hepatitis B virus
 - (c) Growth requirements of bacteria
 - (d) Differences between bacteria and viruses

PART- C

7. Indicate *True* (T) or *False* (F) for the following : $1 \times 5 = 5$
- (a) Mac Conkey agar is a selective medium commonly used for culture of enterobacteria.
 - (b) Gonococci are gram positive diplococci.
 - (c) Treponema pallidum is a motile spirochete causing syphilis in man.
 - (d) Bacillus anthracis is an anaerobic bacterium which produces spores and causes tetanus.
 - (e) Coagulase test is done to establish the pathogenicity of staphylococcus aureus.
8. Choose appropriate answer for the following : $1 \times 5 = 5$
- (a) _____ is a gram negative lactose fermenting bacterium.
 - (i) Streptococcus
 - (ii) Escherichia coli
 - (b) _____ is a selective medium for culture of Mycobacterium tuberculosis.
 - (i) Lowenstein Jenson (LJ) medium
 - (ii) Sabouraud's (SD) Agar
 - (c) _____ transmission is through blood or sexual route.
 - (i) Hepatitis B virus
 - (ii) Hepatitis A virus

- (d) _____ is a common cause of food poisoning in milk and milk products.
- (i) Staphylococcus aureus
 - (ii) Shigella
- (e) _____ is an actively motile comma shaped bacterium in gram negative.
- (i) Pseudomonas aeruginosa
 - (ii) Vibrio cholerae
-