

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

Term-End Examination

December, 2013

BAHI-006 : MICRO-BIOLOGY

Time : 3 Hours

Maximum Marks : 70

Note : *Attempt all questions. Answers Part A, B, C, as per directions.*

PART - A

Answer **any three** questions. Each carries **10** marks.

1. (a) Define sterilisation. **1+4+5**
(b) Classify the methods of sterilisation and give the principle of each.
(c) How would you sterilise the following :
 - (i) Gloves
 - (ii) Glassware
 - (iii) Antibiotic solutions
 - (iv) Disposable syringes
 - (v) Lowenstein Jensen medium

2. (a) Draw and label the parts of a bacterial cell.
(b) What are the functions of each part. **4+3+3**
(c) Describe the cell wall of Gram negative bacteria.

3. (a) Describe (with diagrams) the morphology and staining characters of *Mycobacterium tuberculosis*. 3+2+5
(b) How is it cultured and describe the colony characters.
(c) How is Pulmonary Tuberculosis diagnosed in the laboratory.
4. (a) Name and describe the morphology of the organism which causes CHOLERA 3+1+6
(b) What is the selective medium for growing it ?
(c) Discuss the laboratory diagnosis of cholera.

PART - B

5. Write short notes on **any four**. 5x4=20
(a) Cultivation of Viruses
(b) Coagulase test
(c) *Candida albicans*
(d) DPT vaccine
(e) Enriched media.
6. Write briefly on **any two** of the following : 5x2=10
(a) Laboratory diagnosis of typhoid fever.
(b) Infections caused by *Streptococcus pyogenes*
(c) Dermatophytes

PART - C

7. Choose the **SINGLE CORRECT** answer. 1x5=5
(a) OPV is given to children to prevent :
(i) Pulmonary Tuberculosis
(ii) Pertussis
(iii) Poliomyelitis

- (b) Swarming growth on Blood agar is produced by :
- (i) E .coli
 - (ii) Proteus mirabilis
 - (iii) Pseudomonas aeruginosa
- (c) Gram positive bacilli in Chinese letter arrangement are :
- (i) C. diphtheria
 - (ii) Cl.tetani
 - (iii) B. Subtilis
- (d) Capsule is seen in all :
- (i) Pueermococci
 - (ii) Gonococci
 - (iii) Staphylococci
- (e) Penicillin is an antibiotic acting on bacterial cell :
- (i) wall
 - (ii) membrane
 - (iii) DNA

8. Fill in the blanks. 1x5=5
- (a) Treponema pallidum causes _____ .
 - (b) Food poisoning is caused by _____ .
 - (c) Lactophenol cotton blue stains _____ .
 - (d) _____ is an opportunistic fungus
 - (e) HIV stands for _____ .
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