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C/15/M.Sc./4<sup>th</sup> Seme./BLM-401(U-26)

**M.Sc.**

**2015**

**4th Semester Examination**

**BIOMEDICAL LABORATORY SCIENCE AND MANAGEMENT**

**PAPER—BLM-401 (UNIT-26)**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Answer all questions.**

**( Module — 1 )**

1. Answer any *five* questions of the following : 1×5
  - (a) Distinguish between stain and dye.
  - (b) Write the examples of differential media.
  - (c) Distinguish between bacteriological media and fungal media.

*(Turn Over)*

- (d) Write the principles of moist heat mediated sterilization.
- (e) Write the names of two negative stains.
- (f) Why endospore are heat and chemical resistant ?
- (g) How heat sensitive media are sterilized ?
- (h) What do you mean by cold sterilization ?
2. (a) Write the basic rules in brief for working in the diagnostic microbiology laboratory.
- (b) What is Koch postulate ? How it is important for diagnostic microbiology ? 4+4

Or

- (a) What are the aseptic techniques required for microbial sample handling ?
- (b) 'Presence of air in autoclave chamber hinder sterilization' — Why ? 4+4
3. (a) Write the importance of staining of microbial sample for microscopic examination.
- (b) What do you mean by Acid fast staining ? Write its utility. 3+4

Or

- (a) Write the different biochemical test for *E. Coli* identification.
- (b) Write the different quality control norms in microbiology.

4+3

**( Module — 2 )**

4. Answer any *five* questions of the following : 1×5

- (a) What do you mean by mordant ?
- (b) Give two examples of acidic dye ?
- (c) Write the role of Teichoic acid.
- (d) Write the composition of LPS Layer.
- (e) What is Albert's staining ?
- (f) Write the causal organism of cholera and its genome size.
- (g) Why innoculum loop of platinum is better than nichrome loop ?
- (h) Define X-DR TB.

5. (a) Write down the general procedure for antibiotic susceptibility test.

- (b) Write down the Laboratory diagnostic procedure of cholera. How the disease can be treated ?

3+(3+2)

Or

(a) Write down the general properties and clinical features of *Hemophilus influenzae*.

- (b) Why susceptibility test is important for *Mycobacterium tuberculosis* ?

(3+2)+3

6. (a) Write down the systemic grouping of pathogenic bacteria.
- (b) Write any one media for culturing a particular pathogenic bacteria and write the mode of selective cultivation. 3+(2+2)

*Or*

- (a) Write the laboratory diagnosis of Renal infection.
- (b) Write down the advanced techniques of diagnosis of tuberculosis. 3+4
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