

M. Sc.

2017

4th Semester Examination

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BLM-402

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 Q. No.1 and any *three* of the following.

1. Answer any *ten* questions of the following : 10×1
- (a) What is differential media ?
 - (b) Write the name of two basic stain.
 - (c) What do you mean by sterilisation ?
 - (d) What do you mean by primary culture media ?

(Turn Over)

- (e) Name two clinical sterilizers.
 - (f) Distinguish between solid media and liquid media.
 - (g) Who discovered gram staining ?
 - (h) What is binary fission ?
 - (i) How antibiotic solutions are sterilized ?
 - (j) Why *Mycobacterium tuberculosis* is not stained by ordinary stain ?
 - (k) What is enrichment media ?
 - (l) How tuberculosis is transmitted ?
 - (m) Give an example of a virus responsible for diarrhoea.
 - (n) Give an example of spore forming bacteria.
 - (o) What do you mean by aseptic transfer ?
2. (a) Write the principle of Ziehl-Neelson stain procedure.
- (b) Write briefly the procedure of albert stain.
- (c) Describe the basic rules for working in the diagnostic microbiology laboratory. 2+3+5
3. (a) What is the difference between sterilization and disinfection ?
- (b) Describe the different methods of sterilization and disinfection.

- (c) What do you mean by selective media? 2+3+3+2
4. (a) How bacteria can be classified according to their morphology and flagellar arrangement?
- (b) What precaution should be taken while collecting specimens for microbiological investigations?
- (c) Write the composition of solid and liquid media.
 $(2\frac{1}{2} + 2\frac{1}{2}) + 3 + (1+1)$
5. (a) Write briefly the bacterial growth curve.
- (b) Write a biochemical test to check the differentiation of E.coli.
- (c) Write the procedure of staining of bacteria spore.
5+2+3
6. (a) How do you prepare urine sample for microbiological culture?
- (b) How do you perform colony count of suspected bacteria?
- (c) How do you perform antibiotic sensitivity test of this culture?
4+2+4
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