

M. Sc. 3rd Semester Examination, 2023

BIOMEDICAL LABORATORY SCIENCE

AND MANAGEMENT

PAPER – BML-302

Full Marks : 50

Time : 2 hours

The figures in the right hand margin indicate marks

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

GROUP – A

Answer any **four** questions of the following :

2 × 4

1. What is therapeutic index of antibiotics?

2. What is meant by Salpingitis?
3. Why is mucociliary escalator in respiratory tract known as first-line of defense against airborne pathogens?
4. What is the use of transport media in diagnostics?
5. Write the features of exponential phase of bacterial growth.
6. What are gaseous sterilants?

GROUP - B

Answer any **four** questions of the following :
4 × 4

7. Write a short note on strep throat.
8. Discuss about Microbiological diagnosis of tuberculosis.

9. Discuss about the bacterial aetiology of acute diarrhoeas.
10. What is meant by “nosocomial infections”? How is the triple sugar iron (TSI) test used to biochemically identify bacteria? 1 + 3
11. “Autoclave sterilizes with pressurised steam”- Explain the statement.
12. Write about the medical importance of bacterial endospores.

GROUP – C

Answer any two questions of the following :

13. What is the risk associated to new-born in case of gonorrhoea-infected mother? Differentiate between the microscopic appearance of *Neisseria gonorrhoeae* and *Neisseria meningitidis*? Discuss the use of TCBS agar in bacteriology. 8 × 2
3+3+2

14. Define complicated typhoid fever. Discuss about the laboratory confirmation of typhoid fever. What is the diagnostic utility of blood agar culture? 2+3+3
15. What is the clinical significance of *Gardnerella vaginalis*? Discuss about the laboratory diagnosis of this pathogen. What is bacillary dysentery? 2+3+3
16. What are the major modes of action of anti-microbial drugs? Discuss about the clinical utilities of different classes of β -lactam antibiotics. 5 + 3

[Internal Assessment — 10 Marks]
