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PG (CBCS)

M.Sc. Semester- II Examination, 2023 MEDICAL LABORATORY TECHNOLOGY PAPER: MLT 203

(MEDICAL MICROBIOLOGY)

Full Marks: 40

Time: 2 Hours

MCC/22/

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.

GROUP-A

Answer any **FOUR** from the following questions:

 $4 \times 2 = 8$

- 1. Define endospore along with an example of its bacterial source.
- 2. State the importance of 16S rRNA.
- 3. Name the spike proteins present in the HIV.
- 4. What is a dimorphic fungi? Give one example.
- 5. What is osmotrophy?
- 6. Why leishmaniasis is called Kala-azar?

GROUP-B

Answer any **FOUR** from the following questions:

 $4 \times 4 = 16$

- 7. Discuss the fate of animal cells after the infection of animal virus.
- 8. State the pathophysiology of Staphylococcus infection.
- 9. Discuss briefly the process of reverse transcription in relation to viral replication.
- 10. Describe different clinical features of candidiasis.
- 11. What is ova stool test? What kind of infection can be found by this test? 2+3
- 12. Mention various lab diagnosis strategies practicing for detecting mycotic infections.

GROUP-C

Answer any \underline{TWO} from the following questions:

 $2 \times 8 = 16$

- 13. Discuss the antigenic structure, pathophysiology, and laboratory diagnosis of *Salomella* infection. 2+3+3
- 14. State the different antigens present in Hepatitis B virus. What is YMDD mutation of Hepatitis B? How do you diagnose this infection in the laboratory? 3+2+3
- 15. What do you mean by opportunistic fungi? Give examples. How are mycotoxins involved in emerging various diseases? 3+5
- 16. What do you mean by metastatic lesion? Explain the life cycle of *E. histolytica*?

2+6
