



UNIVERSITY OF JAFFNA, SRI LANKA
FACULTY OF ALLIED HEALTH SCIENCES
FIRST YEAR FIRST SEMESTER EXAMINATION IN BSc HONS (MLS)- 2023
MLSMT1132 MEDICAL LABORATORY TECHNOLOGY 1

Date: 18.12.2024

Time: 2 hours

ANSWER ALL SIX QUESTIONS.

1.

1.1 Briefly explain the working principle of an autoclave. (30 Marks)

1.3 Discuss the causes leading to the malfunctioning of an autoclave. (30 Marks)

1.3 List the advantages and limitations of autoclaving. (20 Marks)

1.4 Describe the methods to confirm a successful sterilization process. (20 Marks)

2.

2.1 Name the types of centrifuges. (10 Marks)

2.2 Briefly explain the working principle of a centrifuge. (30 Marks)

2.3 Briefly discuss on handling and maintenance of a centrifuge and its rotors. (30 Marks)

2.4 Briefly describe the steps involved in serum separation from whole blood. (30 Marks)

3.

3.1 Name different classes of fire extinguishers and explain the suitable situations which can be used. (20 Marks)

3.2 List the preventive methods to overcome fire accidents in a clinical laboratory. (30 Marks)

3.3 Describe the standard precautions that should be followed in a clinical laboratory. (50 Marks)

4. Write notes on,

4.1 Safe chemical storage (50 Marks)

4.2 Triple packaging system (50 Marks)

5.

5.1

5.1.1 Define the term 'biosafety level'. (10 marks)

5.1.2 Describe the safety guidelines that should be followed in a biosafety level 3 laboratory. (30 marks)

5.2

5.2.1 Name three blood borne viruses. (10 marks)

5.2.2 Explain how the above mentioned viruses are transmitted in a clinical laboratory. (25 marks)

5.2.3 Briefly describe how to prevent the transmission of viruses mentioned in 5.2.1 in a clinical laboratory. (25 marks)

6.

6.1 Briefly describe the functions of the parts of a light microscope. (30 marks)

6.2 Briefly describe the maintenance of a binocular light microscope. (40 marks)

6.3 Briefly describe the uses of a phase contrast microscope. (30 marks)