

**2022**

**BMLT**

**(B.Sc. First Semester End Examination-2022)**

**PAPER-III**

**[Fundamentals of Medical Laboratory]**

**Full Marks: 40**

**Time: 02 Hrs**

*The figures in the right hand margin indicate marks  
Candidates are required to give their answers in their own words as  
far as practicable  
Illustrate the answers wherever necessary*

**Group-A**

- 1. Answer any five questions of the following:      5x2=10**
- a. What is clinical Pathology Laboratory.
  - b. Write the full form of CLIA and OSHA Act.
  - c. What are quality control chart?
  - d. Define health status with types?
  - e. What do you mean by external quality control?
  - f. Differentiate between laboratory technician and technologist.
  - g. What do you mean by laboratory automation?
  - h. Enumerate the two personal protection equipment.

(2)

**Group-B**

2. Answer any four questions of the following: **5x4 = 20**
- a) State about the various types of pathological laboratories.
  - b) Write about the first aid measurement in pathological laboratories with first aid kits?
  - c) What are the requirements and phases of internal quality control in clinical laboratories?
  - d) What are pre-analytical errors and ISO certificates?
  - e) Write about the clinical examination of a patient.
  - f) How to set up a basic pathological laboratory with instruments?
  - g) How to separate and dispose of the Pathology wastes?

**Group -C**

3. Answer any one question of the following: **1x10=10**
- a) What are the clinical laboratories hazard with different safety signs? How would you eliminate the laboratory hazards?  
(3+3)+4
  - b) How to assess the health status of a patient externally? Calculate the Total body fat, Percentage of body fat and lean body mass with the help of following prediction formulae of a female subject having age 20 years, body weight 50 kg, body height 160 cm, lilac skinfold (X) 20 mm & Arm skinfold (Y) 15mm respectively. Interpret the result.  
Body density =  $1.0764 - \{(0.00081 \times X) - (0.00088 \times Y)\}$   
Percentage of body Fat =  $\{(4.570 \div \text{body density}) - 4.142\} \times 100$   
4+6