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RNLKWC(A)/BMLT/III/SEM-I/2023

2023

B.Sc.

B.Sc. First Semester End Examination - 2023

BMLT

PAPER - III

Fundamentals of Medical Laboratory

Full Marks : 40

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.

Illustrate the answers wherever necessary.

1. Answer any five from the following questions : $2 \times 5 = 10$

- (a) What do you mean by NABL?
- (b) What are various types of medical laboratory?
- (c) What do you mean by diagnosis?
- (d) Write the differences between Medical Laboratory Technician (MLT) and Medical technologist (MT) in terms of education, training and job performance.

(Turn Over)

(2)

- (e) What are the roles of physician and pathologist?
- (f) Write the functional components of clinical laboratory?
- (g) What ethics are mention in the ethical principle?
- (h) Define health assessment.

2. Answer any four from the following : $5 \times 4 = 20$

- (a) What precautionary measures should your laboratory take in order to prevent the spread of infection from the laboratory?
- (b) What is the significance of quality control of laboratory findings? How quality control different from quality assurance?
- (c) How can you take safety precaution against laboratory accidents?
- (d) State the functions of the following clinical laboratory : Hematology, Blood Banking, Microbiology, Clinical Pathology, Histology.
- (e) Why immunization is essential for the laboratory work?
- (f) Write about high complexity test pathology laboratory.

(3)

3. Answer any one from the following : $10 \times 1 = 10$

- (a) What do you mean by biohazard? How does this affect a laboratory? Draw the ideal logarithm of laboratory management system in the form of logarithm? $2+3+5$
- (b) Write the different types of health assessment and importance in clinical laboratory indicators. Calculate the Total fat, Percentage of body fat and Lean body mass with the help of following prediction formulae of a female subject having age 18 years, body weight 55 kg, body height 160 cm, Iliac skinfold (X) 30 mm & Arm skinfold (Y) 20 mm respectively and interpret the result.

$$\text{Body density} = 1.0764 - \{(0.00081 \times X) - (0.00088 \times Y)\}$$

Percentage of body Fat

$$= \{(4.570 \div \text{Body density}) - 4.142\} \times 100 \quad 4+6$$