

2055

B. Voc. (Medical Laboratory Technology) FYUP
Second Semester
MLT-203: Analytical Laboratory Testing Process

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit. All questions carry 8 marks.

x-x-x

I. Answer the following:-

- a) Define a clinical laboratory specimen.
- b) Differentiate between whole blood and plasma.
- c) Name any two enzymes tested in blood for liver function assessment.
- d) What is the significance of hematocrit in a blood test?
- e) What do you mean by specimen preservation?
- f) Define the term "blood urea nitrogen" (BUN).
- g) What is glycosuria, and what does it indicate?
- h) Name one biochemical test used to diagnose kidney function.

UNIT - I

- II. a) Describe the steps involved in capillary blood collection.
b) List the routine liver function tests.

- III. a) Explain the glucose oxidation method for glucose estimation.
b) Write a brief note on urea estimation in serum.

UNIT - II

- IV. a) Explain the DMSO method for bilirubin estimation.
b) What is the significance of TSH in blood?

- V. a) Describe the function of essential electrolytes and how sodium is measured in a laboratory.
b) How can vitamin B12 deficiency is associated with anemia?

(2)

UNIT - III

- VI. a) What is the Westergren method for ESR estimation?
b) Describe the laboratory method for conducting a packed cell volume (PCV).
- VII. a) Write a short note on MCH and its clinical significance.
b) Explain in brief about automation of hematology lab.

UNIT - IV

- VIII. a) What are the common urinary findings in a patient with a urinary tract infection (UTI)?
b) Describe the principle of Benedict's test for glucose in urine.
- IX. a) Outline the biochemical test for amylase.
b) Briefly explain the significance of ketone bodies in blood.

x-x-x