

2055

B. Voc. (Medical Lab Technology)

Sixth Semester

BMLT-605: Haematology

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) Define anemia.
- b) What are erythrocytes?
- c) Name two anticoagulants used in hematology.
- d) Where are leukocytes produced in the body?
- e) What do you understand by bone marrow aspiration?
- f) What is hemoglobin electrophoresis?
- g) Define hematopoiesis.
- h) What is a peripheral blood smear? (8x1)

UNIT - I

- II. a) Explain the importance of hematology in medical diagnostics.
- b) Describe the different types of anemia. (2x4)
- III. a) Write a short note on hemophilia.
- b) Explain the intrinsic and extrinsic pathways of blood coagulation. (2x4)

UNIT - II

- IV. a) List different clotting factors and explain the function of anyone.
- b) Describe thrombocytopenia and its causes. (2x4)
- V. a) Explain the impact of vitamin B12 deficiency on blood formation.
- b) Write about prothrombin time (PT) and its clinical significance. (2x4)

UNIT - III

- VI. a) Define cytogenetics and explain its role in diagnosing hematological disorders.
- b) What are the safety measures for handling blood samples in a hematology lab? (2x4)

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- VII. a) Name different types of radioisotopes used in hematology and describe anyone.
b) Explain the principles of radiation safety in the laboratory. (2x4)

UNIT - IV

- VIII. a) What are the latest automated techniques used in hematology? Describe anyone.
b) Explain the significance of cross matching in blood banking. (2x4)
- IX. a) What is clinical pathology? Discuss its role in hematology.
b) Differentiate between histopathology and cytopathology with examples. (2x4)

x-x-x