

2025

M.Sc. 1st Semester Examination

**MEDICAL LABORATORY
TECHNOLOGY**

Paper : MLTC401X0

[Haematology]

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *two* questions : $2 \times 2 = 4$

1. What do you mean by plasma cell myeloma?
2. What is MDS?
3. Which type of leukaemia is very common for children?
Write two features of this leukaemia.
4. What do you mean by tactoid formation?

Group - B

Answer any *two* questions : $4 \times 2 = 8$

5. What caused Methamoglobinemia? What do you mean
by hydrops fetalis? $2+2$

P.T.O.

(2)

6. Write about the tertiary and quaternary structure of Hb.
7. What do you mean by leukopenia? Why high level of Haemoglobin is found in the individuals living in high altitude? 2+2
8. Write a short note on hairy cell Leukemia.

Group - C

Answer any *one* question : 8×1=8

9. Briefly describe the role of erythropoietin in the regulation of erythropoiesis mentioning its source. Describe the role of biosynthetic process of haemoglobin with a suitable diagram. 4+4
10. Describe the molecular basis of pathophysiology of sickle cell anaemia. Discuss the significance of each red cell indices in each of the different types of anaemia separately. 4+4

Internal Assessment : 5 marks
