PG CBCS

M.SC. Semester-III Examination 2021 MEDICAL LABORATORY TECHNOLOGY

PAPER: MLT 395C (PRACTICAL) (HAEMOGLOBINOPATHIES & SEROLOGY - I)

Full Marks: 50 Time: 4 Hours

Answer any TWO questions of the following:

2X25=50

- 1. Explain the procedure and precautions for peripheral blood smear preparation. Describe the morphological abnormalities in red blood cells with causes and diagram. 5+4+10+6
- 2. Mention the procedure and calculations for serum iron assay, Write the principle, procedure and calculation of Ferritin ELISA assay. What do you mean by total iron binding capacity and its importance?

 5+3+4+5+3+2+3
- 3. What do you mean by bone marrow examination? Explain the basic morphology of red and yellow bone marrow? Mention the clinical significance of bone marrow examination in different types of anaemia. Mention the principle and procedure of sickling test.

 3+6+6+5+5
- 4. Explain about principle, sample preparation and procedure of Vitamin B12 (Vit-B12) ELISA.

 Mention the significance, materials and procedure of coomb's test.

 3+6+6+2+3+5
- Explain the haemoglobin structure and different haemoglobin derivatives. What do you mean by glycosylated and methaemoglobin? Discuss the principle, equipment's, reagents and methods for haemoglobin electrophoresis.
 4+3+2+2+3+3+5
- 6. Explain principle, procedure, precautions and importance of G-6PD test. Explain the quantitative assay of immunoglobulins in plasma. 3+4+5+5+8
