PGDMLT-2001: HAEMATOLOGY

Semester: II	
Course (subject) Code	**PGDMLT 2001**
Subject Title	**Haematology**
Course Type	Core Compulsory
Teaching Time	15×4=60 Hours
Subject Outcome	At the end of the course, the students will get knowledge of • Blood, its functions and Formation • Haemoglobin and its abnormal forms resulting in diseases • Detailed study of Red Cells, White cells, Platelets and their clinical significance • Coagulation and its disorders

Course Content:

Unit No.	Content	Teaching Hours
Unit-1	**Introduction to Haematology**	**15 Hr.**
1.1	Definition, composition and functions of blood	
1.2	Anticoagulants and Blood collection	
1.3	Erythropoiesis	
1.4	Leucopoiesis	
1.5	Thrombopoiesis	
Unit-2	**Haemoglobin and Haemoglobinopathies**	**15 Hr.**
2.1	Definition, structure of Hb and its types	
2.2	Hb Estimation: (a) Colorimetric Method, (b) Sahli's Method, and (c) Specific Gravity Method.	
2.3	Clinical significance: Normal and abnormal values	
2.4	Haemoglobinopathies: Abnormalities of Haemoglobin Molecule. Sickle Cell Anaemia &Thalassemia	
2.5	Tests for Haemoglobinopathies	
Unit-3	**Red Blood Cells and Anemias**	**15 Hr.**
3.1	Morphology of normal and abnormal Red Blood Cells	
3.2	RBC count and Reticulocyte count	
3.3	Erythrocyte Sedimentation Rate (ESR) and Haematocrit: Pack Cell Volume (PCV)	
3.4	Blood cell indices	
3.5	Anemia: Definition and classification of anemia; factor causing anemia a) Iron & Vit B-12 deficiency anaemia. b) Aplastic anaemia c) Haemolytic anaemia d) G_6PD deficiency anaemia	
Unit-4	**White Blood Cells and Coagulation**	**15 Hr.**
4.1	Total and Differential White Blood Cell Count	
4.2	Introduction and general Classification of Leukaemias. Acute & Chronic Myeloid Leukaemias	
4.3	Haemostasias, Coagulation Cascade and Coagulation disorders test – Bleeding time (BT), Clotting time (CT), Prothrombin time (PT), Activated Partial Thromboplastin Time (APTT), D-dimer, Fibrinogen	
4.4	Coagulation disorders-Haemophilia	

4.5	Platelet count and platelet disorder-Von Willebrand Disease	

Reference Books:

Sr. No.	Title/Edition	Authors	Publisher
1	Practical Haematology. The English Language Book Society/ 8th	Dacei J.A & Lewis S.M.	Elseiver
2	Clinical Haematology, Kothari's Indian Edition.	Wintrobe M. M.	Wolters Kluwer
3	Textbook of MLT/ 3rd edition,	Godkar P. B.	Bhalani Publications.
4	Clinical Pathology, Haematology and Blood Banking Microbiology (For DMLT students)/4th edition	Nanda Maheshwari	Jaypee
5	Textbook of Haematology/ 2nd	Dr. Tejinder Singh	Arya Publications