

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[AHS 0321]

**MARCH 2021**

**Sub. Code: 1253**

**(OCTOBER 2020 EXAM SESSION)**

**M.Sc. MEDICAL LABORATORY TECHNOLOGY**

**FIRST YEAR (2011-2012 Regulation - From 2013-2014 onwards)**

**PAPER III – HAEMATOLOGY AND CLINICAL PATHOLOGY**

*Q.P. Code : 281253*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Haematopoiesis. Write a detail note on the signalling pathway growth factors in haematopoiesis.
2. Define urinalysis. Explain the collection, preservation and physical examination of the urine sample.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Write a note on Leukoerythroblastic picture and causes.
2. Discuss about the collection, preservation and analysis of semen sample.
3. Explain the methods of estimation of haemoglobin.
4. Define Neutrophilic leucocytosis and leukopenia and mention 3 causes.
5. Write about pre-analytical and analytical errors in detail.
6. What are the applications of flowcytometry.
7. Classify qualitative and quantitative platelets disorders.
8. Write 3 causes of eosinophilia and monocytosis.
9. What is the criteria for diagnosis acute myeloid leukaemia in bone marrow according to WHO classification and mention the names of acute myeloid leukaemia.
10. Mention RBC indices formulae and their applications.

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