

(LQ 064)

## FEBRUARY 2020

## **Sub. Code: 1401**

## D.M. - CLINICAL HAEMATOLOGY

## Paper I – STRUCTURE AND FUNCTION OF THE HEMOPOIETIC SYSTEM MOLECLULAR BIOLOGY AND GENETIC ASPECTS OF HAEMOPOIESIS

Q.P. Code: 161401

**Time: Three Hours** Maximum: 100 Marks

I. Elaborate on:  $(2 \times 15 = 30)$ 

1. Describe normal pathway of heme synthesis and its relevance in hematology.

2. Describe in detail the current understanding of the mechanisms of resistance to tyrosine kinase inhibitors in chronic myeloid leukemia and strategies that could potentially overcome it.

 Myeloid derived suppressor cells.
Gamma delta T cells II. Write notes on:  $(10 \times 7 = 70)$ 

- 3. Targeting the microenvironment in chronic lymphocytic leukemia.
- 4. Mixed chimerism post stem cell transplantation in nonmalignant hematological diseases.
- 5. Normal metabolism of Arsenic trioxide.
- 6. Wnt signaling pathway.
- 7. Molecular biology of stem cell homing.
- 8. Warburg phenomenon.
- 9. Post transcriptional regulation.
- 10. Somatic uniparental disomy.

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