

[LQ 187]

AUGUST 2020
(MAY 2020 SESSION)

Sub. Code: 3011

M.D. DEGREE EXAMINATION

BRANCH XXI – IMMUNOHAEMATOLOGY AND BLOOD TRANSFUSION

**PAPER I – BASIC APPLIED ASPECTS RELATED TO TRANSFUSION
MEDICINE**

Q.P. Code: 203011

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 15 = 30)

1. Metabolism of Glucose in the RBC and its applied importance in transfusion medicine. Add a note on the mechanisms involved in the transport of glucose from plasma.
2. Iron metabolism in health and disease. Biochemical markers of iron deficiency.

II. Short notes:

(10 x 7 = 70)

1. Pathophysiology of hypovolemic shock and its management.
2. Different anticoagulants and preservatives used for blood and its components.
3. Complement system and its applied importance in transfusion medicine.
4. Pathophysiology of intravascular and extravascular haemolysis.
5. Regarding stem cells: a. what is a niche? b. What are the types? c. How are they regulated? d. How are they mobilized? e. What are the approved uses?
6. Regulatory T cells (Tregs) and their role in immune tolerance.
7. a. What is reticulated platelet? b. Methods of detection of reticulated platelets.
c. Its importance in platelet transfusion.
8. a. Explain how the fibrinolytic system removes clots. b. List the activators and inhibitors of plasmin.
9. Laboratory diagnosis of G6PD deficiency and its applied aspects in transfusion medicine.
10. Structure of HIV and its transmission.
