[KS 187] **Sub. Code : 2081**

M.D. DEGREE EXAMINATION.

Branch XXI — Immunohaematology and Blood Transfusion

(For candidates admitted from 2004-05 onwards)

Paper I — BASIC APPLIED ASPECTS RELATED TO TRANSFUSION MEDICINE

Q.P. Code : 202081

Time : Three hours Maximum : 100 marks

Answer ALL questions.

Draw suitable diagram's wherever necessary.

I. Essay questions : $(2 \times 20 = 40)$

1. Discuss the role of blood substitutes in current day transfusion practice. (20)

2. Discuss the pathogenesis and pathology of Disseminated Intravascular Coagulation. (20)

II. Write short notes on : $(10 \times 6 = 60)$

1. Hemoglobin function
2. Approved preservative solutions
3. Platelet structure
4. Bilirubin metabolism
5. Chemical mediators of inflammation
6. Role of Bone Marrow in the immune response
7. Deoxyribo Nucleic acid
8. Red cell injury
9. Immunoglobulin structure
10. Interferons.

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March 2009

M.D. DEGREE EXAMINATION

[KU 187] **Sub. Code: 2081**

Branch XXI – IMMUNOHAEMATOLOGY AND BLOOD TRANSFUSION

(Common to all candidates)

Paper I – BASIC APPLIED ASPECTS RELATED TO TRANSFUSION MEDICINE

Q.P. Code : 202081

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions: **(2 x 20 = 40)**

1. Discuss red cell storage lesions, their clinical consequences and prevention.
2. Describe normal human immunoglobulins. Discuss their role in transfusion medicine.

II. Write short notes on : **(10 x 6 = 60)**

1. Reticulocyte count.
2. CD 34.
3. Draw the structure of red cell membrane in health.
4. Describe various serological markers for hepatitis B virus infection and their clinical correlation.
5. Red cell anticoagulants and preservatives.
6. Role of platelets in hemostasis.
7. Plasticizers used in transfusion medicine.
8. Granulocyte antigens.
9. Plasma volume expanders.
10. Define and classify cytokines.

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February 2010

M.D. DEGREE EXAMINATION

[KW 187] **Sub. Code: 2081**

Branch XXI – IMMUNOHAEMATOLOGY AND BLOOD TRANSFUSION

Paper I – (for candidates admitted upto 2007-2008) and

Part I – (for candidates admitted from 2008-2009 onwards)

Paper I – BASIC APPLIED ASPECTS RELATED TO TRANSFUSION MEDICINE

Q.P. Code : 202081

Time : Three hours **Maximum : 100 marks**

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions: **(2 x 20 = 40)**

1. Discuss in detail about the histology and functions of the lymphoreticular system.
2. Write in detail about the platelet structure, function, metabolism and preservation.

II. Write short notes on : **(10 x 6 = 60)**

1. Iron metabolism.
2. Patho-physiological classification of edema.
3. Hemoglobin structure and function.
4. Perflurochemicals.
5. Approved preservative solutions.
6. Red cell freezing – advantages and disadvantages.
7. Sterilization and disinfection protocols in the blood bank.
8. Blood coagulation and fibrinolytic pathway.
9. Chemical composition of the red cell membrane.
10. Role of a transfusion specialist.

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MAY 2011

[KY 187] **Sub. Code: 2081**

M.D. DEGREE EXAMINATION

BRANCH XXI – IMMUNOHAEMATOLOGY AND BLOOD TRASFUSION

BASIC APPLIED ASPECTS RELATED TO TRANSFUSION MEDICINE

Q.P. Code : 202081

Time : 3 hours (180 Min) **Maximum : 100 marks**

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Define, classify cytokines and describe their various functions. Discuss various areas in Transfusion Medicine where cytokines has a role.	11	35	15
2. Describe synthesis, antigenic structure of ABO blood group system. Discuss various subgroups of ABO and their applied aspects in Transfusion Medicine.	11	35	15
II. Write short notes on :			
1. Von Willebrand factor.	4	10	7
2. Draw structure of red cell membrane and discuss its role in health and disease.	4	10	7
3. Reticulated platelets.	4	10	7
4. Molecular basis of Bombay phenotype.	4	10	7
5. Hardy-Weinberg equation.	4	10	7
6. Hemoglobin electrophoresis.	4	10	7
7. Secondary immune response and its role in Transfusion Medicine.	4	10	7
8. Plasticizers in blood banking.	4	10	7
9. Draw coagulation cascade and discuss cellular model of coagulation.	4	10	7
10. Glycoprotein receptors of platelets.	4	10	7

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April 2012

[LA 187] **Sub. Code: 2081**

M.D. DEGREE EXAMINATION
BRANCH XXI – IMMUNOHAEMATOLOGY AND BLOOD TRANSFUSION

BASIC APPLIED ASPECTS RELATED TO TRANSFUSION MEDICINE
Q.P. Code : 202081

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Discuss Complement system, methods of activation, and the processes involving the complement system in Transfusion Medicine.	16	35	15
2. Describe ABO Blood group system and their application in Transfusion Medicine.	16	35	15

II. Write short notes on :

1. Discuss Mendelian theory of inheritance.	4	10	7
2. Potentiators of Antigen Antibody Reaction in red cell serology and describe their uses.	4	10	7
3. Describe leukocyte antigens and antibodies	4	10	7
4. Describe pathophysiology of Disseminated Intravascular Coagulation.	4	10	7
5. Discuss the current standards of practice in bio-waste management in blood banks.	4	10	7
6. Discuss serological techniques for detection of blood group antigens and antibodies.	4	10	7
7. Significance of HLA in Transfusion Medicine.	4	10	7
8. Use of Blood Substitutes in Transfusion Medicine.	4	10	7
9. Describe pathophysiology of Blood Donation	4	10	7
10. Describe ATP synthesis and its significance in storage of Blood.	4	10	7

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