



HK-3824

M. D. Examination

April / May - 2018

Basic Sciences Related to Immunohematology &
Blood Transfusion : Paper - I

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशिक निशानीवाणी विगता उत्तरवही पर अवश्य दधवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. D.

Name of the Subject :
Basic Sciences Related to Immunohematology & Blood Transfusion : Paper - I

Subject Code No. : 3 8 2 4 Section No. (1, 2,.....) : Nil

Seat No. :
0 0 0 8 0 1

Student's Signature

- (2) Answer all questions.
(3) Draw diagrams wherever necessary.

- 1 Describe various subtypes of lymphocytes and their functions in Immune Response. 25
- 2 Describe various types of hemoglobin in health and disease conditions. 25
- 3 Write short notes on any five of the following : 5×10=50
- (a) Anemia of chronic renal failure
- (b) Draw cytoskeleton of platelet and discuss its role in hemostasis
- (c) Various plasma expanders and their role in management of shock.
- (d) Soluble transferrin receptors and their applied aspects in transfusion medicine.
- (e) Synthesis of ATP and its role in blood storage
- (f) Hardy Weinberg Equation and its use in population genetics.



HK-3825

M. D. Examination

April / May - 2018

**Immunohematology, Immunogenetics &
Applied Serology : Paper - II**

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशादिख निशानीवाणी विगतो उत्तरपत्री पर अवश्य लिखवी. Fillup strictly the details of signs on your answer book.	Seat No.:
Name of the Examination :	0 0 0 8 0 1
M. D.	Student's Signature
Name of the Subject :	
Immunohematology, Immunogenetics & Applied Serology : Paper - II	
Subject Code No. : 3 8 2 5	Section No. (1, 2,.....): Nil

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

- 1 Describe biosynthesis of ABO blood group system and develop a protocol for resolution of ABO blood group discrepancies. 25
- 2 Describe criteria for selection and purchase of screening and panel red cells and AHG reagents to be used for pre transfusion testing in India. 25
- 3 Write short notes on any five of the following : 5×10=50
 - (a) DAT negative autoimmune hemolytic anemia
 - (b) Solid phase technology and its applications in immunohematology
 - (c) Del phenotype
 - (d) "Type and screen policy" should be implemented in place of conventional cross match in India". Critically analyze this statement.
 - (e) Describe role of various neutralizing substances in red cell antibody detection and identification.
 - (f) Investigations in a suspected case of delayed hemolytic transfusion reaction.



HK-3826

M. D. Examination

April / May - 2018

**Blood Bank Operation, Blood Donor Organization,
Technology of Components and Clinical
Hemotherapy : Paper - III**

Time : 3 Hours]

[Total Marks : 100

Instructions : (1)

नीचे दशविले निशानीवाणी विगतो उत्तरवही पर अवश्य क्षपदी. Fillup strictly the details of signs on your answer book.	Seat No.:
Name of the Examination :	0 0 0 8 0 1
M. D.	
Name of the Subject :	
Blood Bank Operation, Blood Donor.....	
Subject Code No. : 3 8 2 6	Section No. (1, 2,.....): Nil

- (2) Answer all questions.
(3) Draw diagrams wherever necessary.

- 1 Discuss role of transfusion medicine consultant and transfusion support in ABO mismatched peripheral blood stem cell transplantation. **25**
- 2 Describe the methods to be adopted by a blood bank to maintain an adequate donor pool. **25**
- 3 Write short notes on any five of the following : **5×10=50**
- (a) Strategies to reduce unnecessary transfusions
 - (b) Quality indicators of blood transfusion services
 - (c) Discuss indications for washed red cell components
 - (d) Multicomponent collection
 - (e) Fibrin sealants
 - (f) Transfusion support in a patient with Bombay phenotype undergoing cardio pulmonary bypass.



HK-3827

M. D. Examination

April / May - 2018

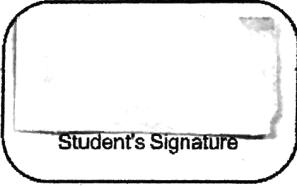
**Recent Advances & Technology : Paper - IV
(Immunoematology & Blood Transfusion)**

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशविषय निशानीवाणी विगतो उत्तरवली पर अवश्य क्षमवी. Fillup strictly the details of signs on your answer book.	Seat No.:
Name of the Examination :	0 0 0 8 0 1
M. D.	 Student's Signature
Name of the Subject :	
Recent Advances & Technology : Paper - IV	
Subject Code No. : 3 8 2 7	Section No. (1, 2,.....) : Nil

(2) Answer all questions.

(3) Draw diagrams wherever necessary.

- 1 Discuss the role of Transfusion Medicine Consultant in ensuring appropriate clinical use of blood and components. **25**
- 2 What is meant by the terms "window period" & "residual risk" in relation to microbiological screening of the blood supply ? Critically evaluate the measures which may be taken to reduce the residual risk of transfusion transmissible viral infections in India. **25**
- 3 Write short notes on any five of the following : **5×10=50**
 - (a) What are the steps taken at the blood bank and in the ward to provide a safe unit of red cells to a patient ?
 - (b) Mesenchymal stem cells
 - (c) Transgenic animal
 - (d) Platelet cross match
 - (e) Extracorporeal photopheresis & its applications
 - (f) Concept of societal marketing for promotion of voluntary blood donation.