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) Fillup strictly the details of signs on your answer book.

M. D.

Name of the Subject:

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

Subject Code No.:

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.

2 Describe various types of hemoglobin in health and disease conditions.

3 Write short notes on any five of the following : 5x10=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-3824] [ 50 ]
HK-3825
M. D. Examination
April / May - 2018
Immunohematology, Immunogenetics &
Applied Serology : Paper - II

Time : 3 Hours] [Total Marks : 100

Instructions :

(1) Fill up strictly the details of signs on your answer book.
Name of the Examination :
M. D.
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 : 5x10=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-3825] [ 50 ]
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)

Fill up strictly the details of signs on your answer book.

Name of the Examination : M. D.
Name of the Subject : Blood Bank Operation, Blood Donor

Subject Code No. : 3 8 2 6

Seat No. : 0 0 0 8 0 1

(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-3826] [ 50 ]
HK-3827
M. D. Examination
April / May - 2018
Recent Advances & Technology : Paper - IV
(Immunohematology & Blood Transfusion)
Time : 3 Hours] [Total Marks : 100

Instructions :

(1) Fill up strictly the details of signs on your answer book.

Name of the Examination :
M. D.

Name of the Subject :
Recent Advances & Technology : Paper - IV

Subject Code No. : 3 8 2 7 Section No. (1, 2,.....) Nil
Seat No. : 0 0 0 1

Student's Signature

(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 : 5x10=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.