DZ-4268

M. D. (Immunohaematology & Blood Transfusion)
Examination
April / May - 2016
Paper - I : Basic Sciences Related to
Immunohaematology & Blood Transfusion

Time : 3 Hours] [Total Marks : 100

Instructions :
(1) Use blue/black pen only.
(2) Do not write anything on the blank portion of the question paper.
(3) The number to the right indicates full marks.
(4) Draw diagrams wherever necessary.

1. Describe iron metabolism and discuss diagnosis and prevention of iron deficiency in repeat voluntary blood donors. 25

2. Describe in details Major Histocompatibility Complex (MHC) and discuss the role of HLA in transfusion medicine. 25

3. Write short notes on any five (5) of the followings : 10 x 5
   (a) Plasticizers in blood storage bags.
   (b) Biochemical and Hematological changes during storage of red blood cells.
   (c) Explain Hardy Weinberg principle with examples.
   (d) Glycoprotein receptors of platelets and its applied aspects
   (e) Pathophysiology of hypovolemic shock and its management.
   (f) Membrane attack complex of complement.
Instructions:

(1) Use blue/black pen only.

(2) Do not write anything on the blank portion of the question paper.

(3) The number to the right indicates full marks.

(4) Draw diagrams wherever necessary.

1. Describe biosynthesis of ABO blood group antigens. 25
   Discuss subgroups of group A and its clinical importance.

2. Outline the investigations and transfusion management 25
   in a newborn with petechiae.

3. Write short notes on any five (5) of the followings: 10×5
   (a) High titer and low avidity antibody (HTLA)
   (b) Use of enzymes in red cell serology
   (c) Hardy Weinberg Equation
   (d) Evaluation of DAT positive sample
   (e) Donath Landsteiner antibody
   (f) Mixed field agglutination.
DZ-4270
M. D. (Immunohaematology & Blood Transfusion)
Examination
April / May - 2016
Blood Bank Operation, Blood Donor Organization,
Technology of Components &
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. (IMMUNO. & BLOOD TRANSFUSION)
Name of the Subject : BLOOD BANK OPER., BLO. DON. ORGA.... P. - III
Subject Code No. : 4270

(2) Use blue/black pen only.
(3) Do not write anything on the blank portion of the question paper.
(4) The number to the right indicates full marks.
(5) Draw diagrams wherever necessary.

1 Discuss various strategies to reduce unnecessary and inappropriate transfusion of blood and components. 25

2 Describe mechanisms of post-operative bleeding in a patient undergoing cardio pulmonary bypass. Discuss the use of point of care tests to reduce transfusion requirements in such a case. 25

3 Write short notes on any five (5) of the followings : 10×5

(a) Coagulation derangements in chronic liver disease and its management.
(b) Exchange transfusion in a case of haemolytic disease of newborn due to anti-D.
(c) Document development and control
(d) Transfusion support in Dengue patient.
(e) Strategies for blood donor motivation and retention
(f) Criteria for donor selection to prevent post transfusion hepatitis.
M. D. (Immunohaematology & Blood Transfusion)
Examination
April / May - 2016
Paper - IV : Recent Advances & Technology

Time : 3 Hours] [Total Marks : 100

Instruction : (1)

(2) Use blue/black pen only.
(3) Do not write anything on the blank portion of the question paper.
(4) The number to the right indicates full marks.
(5) Draw diagrams wherever necessary.

1 What is meant by the terms “window period” and “residual risk” in relation to screening of the blood for transfusion transmitted infections? Describe the measures which may be taken to reduce the residual risk of transfusion transmissible viral infections.

2 Describe types of ABO incompatible Stem Cell / Bone Marrow Transplants. Discuss immunohematological support and transfusion support in such incompatible Stem Cell/Bone Marrow Transplants.
Write short notes on any five (5) of the following:

(a) Donor Lymphocyte Infusion
(b) Platelet cross match
(c) Proteomics in Transfusion Medicine.
(d) Applications of molecular blood grouping
(e) Strategies for minimizing the risk of bacterial contamination of blood components.
(f) Frozen platelets.

Paper IV