



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)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉતારવહી પર અવશ્ય લખવી.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. D. (IMMUNO. & BLOOD TRANSFUSION)

Name of the Subject :
P-I : BASIC SCI. RELA. TO IMMUNO. & BLOOD TRAN.

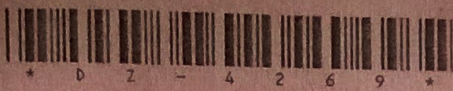
Subject Code No. : 4 2 6 8 Section No. (1, 2,.....) : Nil

Seat No. :
801

Patel
Student's Signature

- (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 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 : 10×5
 - (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.



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**M. D. (Immunohaematology & Blood Transfusion)
Examination**

April / May - 2016

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

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

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Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. D. (IMMUNO. & BLOOD TRANSFUSION)

Name of the Subject :
P. - II : IMMUN., IMMUNO. & APPL. SEROLOGY

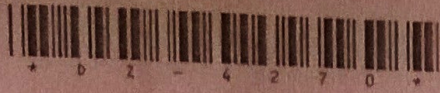
Subject Code No. : **4 2 6 9** Section No. (1, 2,.....) : **Nil**

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- (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 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)

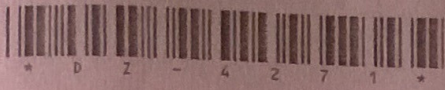
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<input type="text"/> M. D. (IMMUNO. & BLOOD TRANSFUSION)	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center;"><p><i>Patel</i></p><p>Student's Signature</p></div>
Name of the Subject :	
<input type="text"/> BLOOD BANK OPER., BLO. DON. ORGA.... P. - III	
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- (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.

Paper III



1 HBT

DZ-4271

**M. D. (Immunohaematology & Blood Transfusion)
Examination**

April / May - 2016

Paper - IV : Recent Advances & Technology

Time : 3 Hours]

[Total Marks : 100

Instruction : (1)

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Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. D. (Immunohaematology & Blood Transfusion)

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

Subject Code No. : 4 2 7 1 Section No. (1, 2,....): Nil

Seat No. :
8 0 1

Patel
Student's Signature

- (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. 25

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. 25

3 Write short notes on any five (5) of the following :

10×5

- (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