



NBA-20144

Seat No. _____

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

March / April - 2017

**Paper - IV : Recent Advances in
Immunohaematology & Blood Transfusion**

Time : 3 Hours]

[Total Marks : 100

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

1 Long Answer Questions : 2×25=50

- (1) Stem cell types, harvesting techniques, preservation and indications of its use.
- (2) Molecular blood grouping, its applications and techniques.

2 Short Answer Questions : (any Five) 5×10=50

- (1) Gene therapy
- (2) TRALI
- (3) Frozen platelets
- (4) Blood substitutes
- (5) Donath Landsteiner technique
- (6) Pathogen inactivation technologies.