

B.Sc. IN MEDICAL LABORATORY TECHNOLOGY

Term-End Examination

December, 2014

**BAHI-003 : IMMUNO-HAEMATOLOGY AND
BLOOD BANKING**

Time : 3 Hours

Maximum Marks : 70

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- Note :**
- Part-A** contains 10 objective questions.
 - Part-B** contains 5 short answer questions.
 - Part-C** contains 6 short notes. Answer **any four** questions.
 - Part-D** contains 4 essay questions. Answer **any three** questions.
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PART - A

1. (a) Fill in the blanks. 5x1=5
- (i) Agglutination with Anti A and Anti B indicate _____ blood group.
 - (ii) Minimum total area required for a blood bank is _____.
 - (iii) Colour scheme for labels that shall be used for 'O' group is _____.
 - (iv) ABO blood group system was discovered by _____.
 - (v) Cold agglutinins clumped erythrocytes at _____ °C.

- (b) Indicate **TRUE** or **FALSE** for the following : $5 \times 1 = 5$
- (i) Complement is present in stored blood.
 - (ii) Rouleaux formation may show false positive result in blood bank.
 - (iii) Rh positive blood corresponds to cde.
 - (iv) The phenotype of group 'A' is AA and AO.
 - (v) Heparinized fresh blood is used in exchange blood transfusion.

PART - B

2. Write short answers of the following : $5 \times 2 = 10$
- (a) Delayed Transfusion Reactions
 - (b) DCT - Direct Coomb's Test
 - (c) Subgroup of A
 - (d) Haemapheresis
 - (e) Dangerous universal donor

PART - C

3. Write short notes on **any four** of the following :
- (a) Bombay blood group (Bombay phenotype)
 - (b) Safety in Blood Bank $4 \times 5 = 20$
 - (c) Reverse grouping and its advantages
 - (d) Principle of ELISA test
 - (e) Cross matching of universal donor
 - (f) Major equipments used in Blood Bank

PART - D

- Answer **any three** of the following : $3 \times 10 = 30$
4. (a) How are ABO antigens derived ? 2
- (b) Describe the procedure of ABO blood grouping. What are the false positive agglutinations ? 8

5. (a) Define compatibility test in blood bank. 2
(b) What are the different types of cross match ? Describe in detail any one and write its advantages. 8
6. (a) Name the various components which can be prepared from whole blood and mention the uses of each component. 4
(b) Describe the preparation of platelet concentrate and fresh frozen plasma. 6
7. (a) Define Transfusion Reaction ? What are the possible causes of Haemolytic Transfusion reactions. 4
(b) How will you investigate Haemolytic Transfusion reactions ? Enlist the procedure giving its importance. 6
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