

B.Sc. IN MEDICAL LABORATORY TECHNOLOGY

Term-End Examination

June, 2015

**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 : **1x5=5**
- (i) Blood containing neither A antigen nor B antigen is blood group _____ .
 - (ii) Both parents are heterozygous Rh positive approximately _____% of offspring may be Rh negative.
 - (iii) The law of inheritance was discovered by _____ .
 - (iv) When collecting 500 ml of whole blood from a donor, blood bag should contain _____ volume of ACD solution.
 - (v) Presence of Hb in urine specimen after a blood transfusion indicates _____ .

- (b) Indicate **TRUE** or **FALSE** for the following :
- (i) H antigen is normally present on red cells of all ABO group. **1x5=5**
 - (ii) Wharton's jelly is present in all adult cells.
 - (iii) For the treatment of thrombocytopenia stored plasma at 4°C can be used.
 - (iv) The antibody which developed only after sensitization of the body is Ig M.
 - (v) Red cells are used in performance of ICT.

PART - B

2. Write short answers of the following : **2x5=10**
- (a) A₁ lectin
 - (b) Fresh Frozen Plasma
 - (c) Clinical significance of minor blood groups
 - (d) Minor cross match
 - (e) Antisera AB

PART - C

3. Write short notes on **any four** of the following : **5x4=20**
- (a) Cryoprecipitate
 - (b) Documentation in Blood Bank
 - (c) Difference between naturally occurring antibody and Immune antibody.
 - (d) Antibody titre
 - (e) Hemolysin
 - (f) Quality Control in Blood Bank

PART - D

- Answer **any three** of the following : **10x3=30**
4. (a) What is Rh system ? **3**
(b) List different methods for Rh grouping and explain in detail D^u typing. **7**
5. (a) What is Coomb's serum ? Explain the principle of Coomb's test. **3**
(b) What are the different methods of Coomb's test ? Explain one of them and its interpretation. **7**
6. (a) Give reasons why you screen a donor before donation of blood ? List the various lab tests you would do to the blood donor. **3**
(b) Briefly describe anticoagulants used for blood collection in blood transfusion services. **7**
7. (a) What is the cause of HDN ? Write haematological picture in cases of HDN. **7**
(b) Indicate estimation values and counts in case of Rh HDN : **3**
(i) Haemoglobin
(ii) Reticulocyte count
(iii) Direct Coomb's test
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