

M.Sc.

2015

2nd Semester Examination

BIOMEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BLM-203

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer question *no.1* and any *three* from the rest.

1. Answer any *five* questions of the following : 5×2

(a) What is the significance of cross matching in blood bank ?

(b) What is the relevance of combo's test in modern blood banking system ?

(Turn Over)

- (c) What is Plasma cell ?
 - (d) What is Paratope ?
 - (e) What is hydrops fetalis ?
 - (f) Mention the cardinal rule in blood bank.
 - (g) Differentiate alloantibodies and autoantibodies.
 - (h) Mention the probable genotype of Rh in white and black population.
2. (a) How H antigen formation takes place on the surface of red cell ?
- (b) What is 'h' antigen? Show its basic structure with reference to GINac and galactose.
- (c) Discuss the causes of discrepancies in ABO testing.
- 4+(1+2)+3
3. (a) Describe Rh system with reference to any type of nomenclature.
- (b) State the phenotypic charecterization of Rh system.
- (c) Describe the sequential orientation of RHD genes in Fisher DCE notation.
- 4+2+4

4. (a) Calculate the anticoagulant and blood volume drawn from a subject having the body weight of 63 kg.
- (b) Describe the types of anticoagulant used in blood bank with their storage ability. 6+4
5. (a) State briefly the basic technique that is followed in blood bank for blood component preparation.
- (b) What is your idea about red blood cell-pheresis?
- (c) What is the implication of platelet rich plasma in a blood bank?
- (d) Why gamma irradiation of cellular blood components are required? 3+2+3+2
6. (a) State the requirements for a safe blood transfusion.
- (b) Mention the different complications of blood transfusion categorically.
- (c) What is erythroblastosis foetalis? 3+4+3
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