PG/IIS/BLM-202(U - 11)/13

M.Sc. 2nd Semester Examination, 2013

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BMLSM - 202(Unit - 11)

Full Marks : 40

Time : 2 hours

Answer **all** questions

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

MODULE – I

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

   (*a*) Give two examples of lymphoid cells.

   (*b*) Who invented ABO blood group ?

   (*c*) What is superantigen ?

   (*d*) What is immune response ?

(*e*) Which organ is responsible for removal of old RBC ?

(*f*) Where B and T lymphocytes are produced ?

(*g*) What is hapten ?

(*h*) What do you mean by hematopoietic stem cell ?

2. (*a*) Describe innate and adaptive immunity.

(*b*) Describe the functions of major organs in immune system. (2 + 2) + 4

Or

(*a*) Describe humoral and cell-mediated immunity.

(*b*) What is the difference between antigen and immunogen.

(*c*) Describe ABO blood grouping system. (2 + 2) + 2 + 2

3. (*a*) Classify immunoglobulin present in humans.

(*b*) Show the antigenic diversity of red cell membrane of different blood groups with diagram. 3 + 4

Or

(*a*) Describe the 'cells' involved in immune system.

(*b*) What is the difference between memory cell and plasma cell. 4 + 3

MODULE – II

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

(*a*) What is an ABO Rh^+ Du variant ?

(*b*) What is the specificity of containers used for blood collection ?

(*c*) Write the names of two anti-coagulants used in blood bank.

(*d*) What is the shelf life of stored blood ?

(*e*) Write any two complications of blood transfusion.

(*f*) What is hypothermia ?

(*g*) How plasma is stored ?

(*h*) What is the causative agent of Leishmaniasis ?

5. (*a*) Why it is suggested to match blood group before marriage ?

(*b*) What is the cause of Thalassemia ?

(*c*) State the basic principle followed for blood transfusion. 3 + 2 + 3

Or

(*a*) How blood can be transfused by fractionated parts ?

(*b*) What do you mean by Erythroblastosis foetalis ? What is Kernicterus ? 4 + (2 + 2)

6. (*a*) Which diseases can be transmitted though blood transfusion ?

(*b*) Describe the role of anti-coagulant reagents used in blood collection. 4 + 3

Or

(*a*) Describe the risk for donor and recipient in the process of blood transfusion.

(*b*) How blood is collected and transported ? Describe the rules. (2 + 2) + 3