



UNIVERSITY OF JAFFNA, SRI LANKA

BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

FOURTH YEAR FIRST SEMESTER EXAMINATION- JULY 2013

MLSTM 4103 TRANSFUSION MEDICINE

PAPER II

Date: 06.08.2013

Time: 2½ Hours

ANSWER ALL EIGHT QUESTIONS

1. 1.1. Briefly describe the preparation of buffy coat removed blood. (40 marks)
1.2. List four indications for Fresh Frozen Plasma. (10 Marks)
1.3. Mention 4 factors available in cryoprecipitate. (20 marks)
1.4.1. List 6 blood components available in a blood bank. (15 marks)
1.4.2. Mention their storage conditions and lifespan of the components you mentioned in 1.4.1 (15 marks)
2. Write short notes on,
2.1. Autologous blood transfusion. (40 marks)
2.2. Donor selection. (30 marks)
2.3. Refrigerated centrifuge. (30 marks)
3. 3.1. List 4 causes for acute hemolytic transfusion reaction. (20 marks)
3.2.1. Mention 6 investigations to be done after a suspected acute hemolytic transfusion reaction. (30 marks)
3.2.2. Mention the relevant samples for each of the investigation you mentioned in 3.2.1. (10 marks)
3.3. Mention 5 situations which can cause bacterial contamination of blood components. (25 marks)
3.4. List 3 blood components which can cause transfusion associated Graft Versus Host Disease (GVHD). (15 marks)

4. 4.1. Mention 4 complications of massive blood transfusion. (20 marks)
- 4.2.1. Write 3 sources of stem cells for transplantation. (15 marks)
- 4.2.2. Mention 5 indications for bone marrow transplantation. (25 marks)
- 4.2.3. Write 4 side effects of stem cell transplantation. (20 marks)
- 4.3. Mention two indications for plasmapheresis. (20 marks)

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5. 5.1. Briefly describe how you would perform indirect antiglobulin test. (40 marks)
- 5.2. List 3 indications for direct antiglobulin test. (15 marks)
- 5.3. Describe how you can select a compatible blood for a 2 weeks old baby. (45 marks)
6. 6.1. List 5 indications for irradiated blood. (25 marks)
- 6.2. Describe the advantages of apheresis platelets. (20 marks)
- 6.3. Briefly describe the preparation of frozen red cells. (25 marks)
- 6.4. Describe the preparation methods of washed red blood cells. (30 marks)
7. 7.1. Describe the procedure for particle agglutination test for HIV 1 & 2. (40 marks)
- 7.2. What are the testing methods available for Hepatitis B virus in Sri Lanka? (20 marks)
- 7.3. List the advantages and disadvantages of VDRL test. (40 marks)
8. 8.1. Discuss the role of Quality control in transfusion service. (50 marks)
- 8.2. List the serological tests done at Blood Bank for a pregnant mother. (50 marks)