



UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
THIRD YEAR SECOND SEMESTER EXAMINATION-AUGUST 2016

MLSTM 3202 TRANSFUSION MEDICINE
PAPER II

DATE: 10.08.2016

TIME: 2 1/2 Hours

ANSWER ALL EIGHT QUESTIONS

1.
 - 1.1. What are the main pathogens responsible for transfusion transmitted infections? (25 Marks)
 - 1.2. List the main infections which could currently be tested in Sri Lankan blood transfusion service and mention the testing methods available to each infection. (30 Marks)
 - 1.3. What are the methods available in the transfusion practice in order to minimize the transmission of transfusion transmitted infections? (20 Marks)
 - 1.4. Mention 5 situations which can cause bacterial contamination of blood components. (25 Marks)

2.
 - 2.1. What are the types of blood bags available for blood collection? (20 Marks)
 - 2.2. Mention the type of blood bag which is used to prepare leuko reduced red cells, mention the contents of anticoagulant solution inside that particular bag and mention the action of each content. (24 Marks)
 - 2.3. List 6 blood components available in the blood bank. (06 Marks)
 - 2.4. Mention their storage conditions and shelf life of the components you mentioned in 2.3. (25 Marks)
 - 2.5. Give 2 indications for each component you have mentioned in 2.3. (25 Marks)

3.
 - 3.1. Define the Autologous blood transfusion. (10 Marks)
 - 3.2. List the types of autologous blood transfusion. (10 Marks)
 - 3.3. Mention the advantages of autologous blood transfusion compared to allogeneic blood transfusion. (20 Marks)
 - 3.4. Mention the contraindications for autologous blood transfusion. (20 Marks)
 - 3.5. Briefly describe the procedures in acute normovolumic haemo dilution. (40 Marks)

4. Write short notes on,
 - 4.1. Stem cell transplantation (40 Marks)
 - 4.2. Preparation method of platelets from quadruple bag (60 Marks)

5.
 - 5.1. Define acute transfusion reaction and delayed transfusion reaction. (10 Marks)
 - 5.2. Give five examples for acute immune mediated transfusion reactions. (25 Marks)
 - 5.3. What is the main cause for acute hemolytic transfusion reaction? (05 Marks)
 - 5.4. Mention the two complications of acute haemolytic transfusion reaction. (10 Marks)
 - 5.5. Mention five important clinical features of acute haemolytic transfusion reaction. (15 Marks)
 - 5.6. Give five laboratory evidence of acute haemolytic transfusion reaction. (15 Marks)
 - 5.7. Briefly describe how to prevent acute haemolytic transfusion reaction. (20 Marks)

6.
 - 6.1. What is haemolytic disease of new born? (15 Marks)
 - 6.2. Mention the four main antibodies that course the haemolytic disease of new born. (20 Marks)
 - 6.3. List five causes for fetomaternal haemorrhage. (25 Marks)
 - 6.4. Briefly describe the pathophysiology of haemolytic disease of new born. (40 Marks)

- 7.
- 7.1. Define forward grouping. (15 Marks)
 - 7.2. Briefly describe the procedure of forward grouping. (40 Marks)
 - 7.3. Define reverse grouping. (15 Marks)
 - 7.4. Mention the importance of reverse grouping. (10 Marks)
 - 7.5. Mention two conditions does **NOT** require reverse grouping. (20 Marks)
- 8.
- 8.1. Mention the three types of blood donation. (30 Marks)
 - 8.2. What type of blood donation is mostly welcomed in Sri Lanka? (10 Marks)
 - 8.3. Mention the deferral period for the following conditions:
 - 8.3.1. Following a miscarriage. (05 Marks)
 - 8.3.2. Following complete recovery of major surgery. (05 Marks)
 - 8.3.3. Following a tetanus toxoid vaccination. (05 Marks)
 - 8.3.4. Following the full recovery of chickenpox. (05 Marks)
 - 8.3.5. Following the full recovery of dengue fever. (05 Marks)
 - 8.4. Mention the seven components of the quality system essentials. (35 Marks)