



MASEÑO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

THIRD YEAR FIRST SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN MEDICAL
LABORATORY SCIENCE WITH INFORMATION TECHNOLOGY
(MAIN CAMPUS)

PMT 319: TRANSFUSION AND TISSUE TYPING

Date: 26th November, 2013

Time: 2.30 - 4.30 p.m.

REG. No, PH/ _____ / _____

SECTION A: ANSWER BOTH QUESTIONS (ON THE QUESTION PAPER)

1. Indicate whether true (T) or false (F) [5 marks]

- a. ___ The first human blood transfusion was administered to Pope Innocent VII in AD 1492.
- b. ___ Science for blood group serology started with Blundell in 1940.
- c. ___ First discovery of anticoagulation mechanism was in a single centre in 1914
- d. ___ Pyrogens were a transfusion hazard until the discovery of the Acid-Citrate-Dextrose (ACD).
- e. ___ Death of the three blood donors to Pope innocent VII could have been from haemagglutinins

2. Indicate whether true (T) or false (F) [5 marks]

Packed red blood cell transfusions are required in or during:

- a. ___ Acute haemorrhagic anaemia due to a traffic accident
- b. ___ Paroxysmal nocturnal haemoglobinuria
- c. ___ Hypoproliferative anaemias
- d. ___ Anaemia due to chronic renal insufficiency
- e. ___ Megaloblastic (pernicious) anaemia

3. Fill in the blanks:

- a. The anti-human globulin test is known as the _____ test
- b. Landsteiner got the Nobel prize in 1930 for discovering blood groups in the year _____
- c. Historically, manual blood transfusion was not possible until _____ described the mechanism of the _____

4. Although the total number of Rh- related antigens is > 40, the five principal ones are:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

SECTION B: ANSWER ANY THREE OF THE FIVE QUESTIONS IN THIS SECTION:

Define:

- a. Haemagglutinogens (5 marks)
- b. Secretors (5 marks)

Describe the genotypes and phenotypes in blood group expressions (10 marks)

Enlist five haemorrhagic situations which will require massive blood transfusion and high level of preparedness by the blood bank. (10 marks)

Discuss hydrops foetalis. (10 marks)

Mention four diseases which are transmissible through blood transfusion. (10 marks).