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**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**POSTGRADUATE DIPLOMA IN TRANSFUSION MEDICINE**  
**(NEW PROSPECTUS) EXAMINATION – FEBRUARY 2015**

**Date :- 9<sup>th</sup> February 2015**

**Time :- 1.00 p.m. – 4.00 p.m.**

**PAPER I**

**Answer all questions.**

**Answer each question in a separate book.**

1. A 50 year old obese woman underwent a right hip replacement. Subcutaneous heparin was given for five days starting on the day prior to surgery. She required two units of red cells during surgery.

On the 10<sup>th</sup> post operative day, she developed a systemic petechial rash on both lower limbs and echymotic patches on abdomen.

Pre operative findings

Hb	10 g/dL
WBC	$11.2 \times 10^9/L$
Platelet	$225 \times 10^9/L$

Findings on 10<sup>th</sup> postoperative day

Temperature	37 <sup>0</sup> C
Hb	9 g/dL
WBC	$12.5 \times 10^9/L$
Platelet	$14 \times 10^9/L$
PT, APTT, TT	Normal

- 1.1. What is the most likely diagnosis? (20 marks)
- 1.2. How did you arrive at the diagnosis given in 1.1. (30 marks)
- 1.3. What advice would you give the surgeon regarding the transfusion management of this patient? (50 marks)

Contd..../2-

2.

- 2.1. Write the advantages and disadvantages of apheresis platelets compared to the platelet concentrates prepared from whole blood donations. (40 marks)
- 2.2. What criteria would you consider in addition to the standard donor selection criteria when selecting a donor for platelet apheresis. (30 marks)
- 2.3. What are the donor complications associated with platelet apheresis? (30 marks)

3. A patient receiving a blood transfusion has developed fever.

- 3.1. What are the likely causes? (20 marks)
- 3.2. What will be your advice to the Medical Officer looking after this patient regarding the management? (80 marks)

4. Write short notes on –

- 4.1. Direct anticoagulant test. (50 marks)
- 4.2. Nucleic Acid Testing for (NAT) HIV. (50 marks)

5.

- 5.1. What is a massive transfusion protocol (MTP)? (20 marks)
- 5.2. Outline a suitable MTP for your institution. (50 marks)
- 5.3. What are the advantages of a MTP? (30 marks)

6. A 28 year old male with severe haemophilia A admitted to casualty ward with massive psoas haematoma extending to the thigh.

His Hb is 5 g/dL.

He is in severe pain.

- 6.1. What further information and investigations would you require for further management? (50 marks)
- 6.2. Briefly outline the management of this patient. (50 marks)
7. A 6 month old baby admitted with severe anaemia was diagnosed to have  $\beta$  thalassaemia major.
- 7.1. Outline the transfusion management of this baby. (60 marks)
- 7.2. Briefly mention the possible complications of repeated transfusions. (40 marks)
8. A blood sample from a 45 year old woman was sent to you from a peripheral blood bank as they are unable to find cross matched compatible blood for transfusion. Her blood group is O Rh D positive and this was compatible with her historical records.
- 8.1. What are the possible causes? (40 marks)
- 8.2. Briefly outline how you would proceed to provide compatible blood for this patient. (60 marks)