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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR ENROLMENT TO
THE IN-SERVICE TRAINING PROGRAMME IN
POSTGRADUATE DIPLOMA IN TRANSFUSION MEDICINE
OCTOBER 2025

Date:- 10th October 2025

Time:- 9.00 a.m. – 12.00 noon

Answer all six (06) questions.

Answer each question in a separate book.

1. Transfusion Transmitted Infection (TTI) prevention is a crucial part of the transfusion process and it is a challenge for transfusion services worldwide.
 - 1.1. Elaborate the importance of donor counselling for the prevention of transfusion transmitted infections. (20 marks)
 - 1.2. List the factors to be considered when selecting tests for screening transfusion transmitted infection in donated blood. (30 marks)
 - 1.3. Outline the life cycle of malaria parasite in relation to transfusion transmission. (20 marks)
 - 1.4. Outline the steps need to be taken to manage a blood donor who was confirmed positive for Human Immunodeficiency Virus (HIV). (30 marks)
2.
 - 2.1. Briefly mention the purpose of 'Hospital Transfusion Committee' (HTC). (20 marks)
 - 2.2. Enumerate the key members of HTC. (30 marks)
 - 2.3. Briefly describe the activities of HTC. (50 marks)

Contd...../2-

3. A 42-year-old previously healthy man presented to the emergency room (ER) with complaints of slurred speech and confusion. He had been experiencing severe dizziness, light headedness and fatigue for few weeks before presenting to the ER. On the initial examination, his vitals were stable. He was found to be confused and disoriented without any focal neurological deficits. The rest of the systemic examination was unremarkable.

Following laboratory and radiological investigations, Thrombotic Thrombocytopenic Purpura (TTP) was diagnosed.

- 3.1. Briefly explain the pathophysiology of TTP. (30 marks)
- 3.2. Name the characteristic pentad of clinical findings associated with TTP. (15 marks)
- 3.3. List differential diagnoses for TTP. (15 marks)
- 3.4. Briefly explain the key laboratory findings used to diagnose TTP. (20 marks)
- 3.5. Outline the first-line treatment for TTP. (20 marks)

4. A 5-day-old baby presented with poor sucking and found to be pale on clinical examination.

- 4.1. List the causes of anaemia in neonates. (30 marks)
- 4.2. Mention the necessary investigations to find the cause for anaemia of this baby. (20 marks)
- 4.3. Briefly explain the principles of pre-transfusion testing in neonates. (30 marks)
- 4.4. List unique neonatal complications of large volume red cell transfusion. (20 marks)

5. Haemostasis is the physiological process that prevents and stops bleeding at the site of vascular injury, while maintaining blood in fluid state.

- 5.1. Briefly explain four (04) main stages of normal haemostatic response to vascular injury. (40 marks)
- 5.2. List the laboratory tests useful in identifying abnormalities of different stages of haemostasis. (20 marks)
- 5.3. Name plasma components and plasma derivatives available in Sri Lanka for managing patients with coagulation disorders. (10 marks)
- 5.4. State the coagulation factors available in plasma components mentioned in 5.3 and write two (02) clinical indications for each. (30 marks)

6. In Sri Lanka, blood is collected only from voluntary blood donors as in-house collection at the blood bank or at the mobile blood donation campaigns.

6.1. Name the types of blood donors other than voluntary blood donors. (10 marks)

6.2. List the advantages of in-house donations compared to donations from mobile blood programmes. (25 marks)

6.3. Outline the steps that can be taken to promote in-house blood collection. (30 marks)

6.4. Number of in-house blood collections at a peripheral blood bank in 7 consecutive days is as follows:

Day	Number of blood units collected
Monday	5
Tuesday	2
Wednesday	4
Thursday	10
Friday	4
Saturday	9
Sunday	8

Calculate the following numerical measures from above data.

6.4.1. Mean (05 marks)

6.4.2. Median (05 marks)

6.4.3. Mode (05 marks)

6.4.4. Range (05 marks)

6.4.5. Degree of freedom (05 marks)

6.4.6. Variance (05 marks)

6.4.7. Standard deviation (05 marks)