



THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF MEDICAL LABORATORY SCIENCES
ACADEMIC YEAR 2020/2021 – SEMESTER I

BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
MDU4501 – HAEMATOLOGY II
FINAL EXAMINATION

DURATION: 03 HOURS

DATE: 02nd MARCH 2022

TIME: 09.30 AM – 12.30 PM



Part B: Structured Essay Questions (40 marks)**Question 01**

A one-year-old girl presented to the Emergency treatment unit of National Hospital Kandy. She presented with cough, dyspnea, and fatigue. Her family history was not significant for any blood-related disorder or any genetic disease.

She was clinically anemic with brittle hair and nail. Further, she has a history of blood transfusions once in every month for last 6 months. The patient was under-built with the decayed upper tooth, not associated with pain or swelling. Head and neck examination showed maxillary expansion. Her Full Blood Count (FBC) findings are as follows.

Hb - 6.5 mg/dl

MCV - 50 fL

HCT - 31.8%

1.1 What is the most likely diagnosis? (02 marks)

.....

1.2 State the reason for the maxillary expansion seen in the above patient. (02 marks)

.....

.....

1.3 Write one (01) laboratory tests that can be used to confirmatory diagnosis of disease mentioned in 1.1. (02 marks)

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1.4 Briefly explain the principle behind the test mentioned in 1.3. (04 marks)

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(Total 10 marks)

Question 02

A 24-year-old man presented to his primary-care physician with dark red coloured urine during the night which clears out and returns to normal during the day.

2.1 What is the most likely diagnosis? (02 marks)

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2.2 The patient tested positive for haemosiderinuria. What is the stain used for this test? (02 marks)

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2.3 Explain the pathophysiology behind the presence of haemosiderin in urine. (04 marks)

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2.4 Name one (01) test that can be used to confirm the presence of PNH? (02 marks)

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(Total 10 marks)

Question 03

3.1 Name one (01) congenital disease leading to thrombocytopenia due to selective megakaryocyte depression. (02 marks)

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3.2 State the platelet morphology observed in the disease mentioned in 3.1. (02 marks)

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3.3 Explain the laboratory findings of chronic immune thrombocytopenic purpura. (04 marks)

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INDEX NO:

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3.4 Name two (02) causes of immune-mediated thrombocytopenia other than chronic and acute immune thrombocytopenic purpura. (02 marks)

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(Total 10 marks)

Question 04

4.1 Briefly describe how you would prepare cryoprecipitate from a triple bag. (04 marks)

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4.2 List two (02) components of the cryoprecipitate. (02 marks)

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4.3 Name two (02) indications for a cryoprecipitate transfusion. (02 marks)

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4.4 Name two (02) other blood components and their storage conditions. (02 marks)

Blood component	Storage condition	Storage time

(Total 10 marks)

Part C: Essay Questions (30 marks)

1. Explain what antibody screening is and describe the test method. (15 marks)
2. Explain the criteria used for screening of blood donors in Sri Lanka. (15 marks)

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