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MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

(MAIN CAMPUS)

UNIVERSITY EXAMINATIONS (MAIN PAPER) 2023/2024 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER EXAMINATIONS

FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL LABORATORY SCIENCES

COURSE CODE: BMH 824

COURSE TITLE: PAEDIATRIC HAEMATOLOGY

DATE: 7TH DECEMBER 2023 **TIME: 8.00-11.00AM**

INSTRUCTIONS TO CANDIDATES

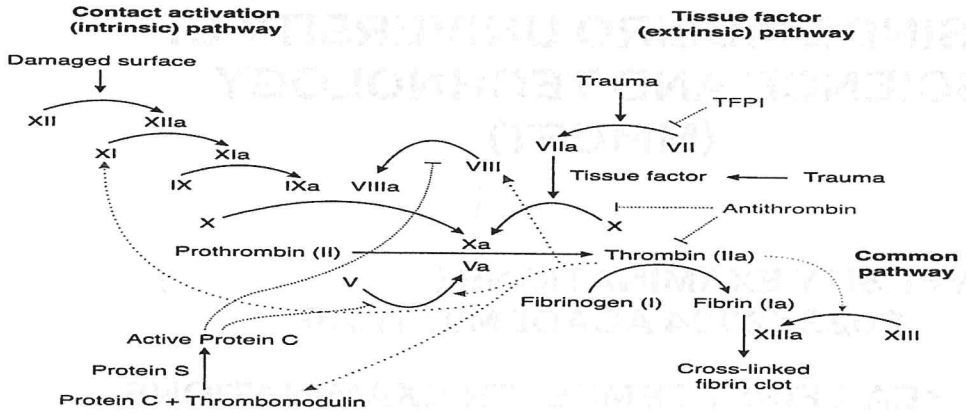
This paper consists of only one section with four (4) Long Answer Questions (**LAQs**). **Answer all questions. DO NOT WRITE ON THE QUESTION PAPER.**

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

1. Below is the coagulation cascade



a) Fill in the table below **(6 marks)**

Disease	Inheritance	Deficiency
Haemophilia A		
Haemophilia B		
Haemophilia C		

b) Define the terms below **(8 marks)**

i. Platelet count
ii. Bleeding time
iii. Partial thromboplastin time (PT)
iv. Thrombin time (TT)

c) For each of the above terms state whether they increase, decrease or remain the same for patients with haemophilia. **(5 marks)**

d) state 2 symptoms a patient with haemophilia would present with **(2 marks)**

e) What is the treatment for haemophilia? **(1 mark)**

f) List 3 signs or symptoms of immune thrombocytopenia purpura. **(3 marks)**

2. A 35-year-old male presents with increased urinary frequency, pain on urination and mild back pain. He is pyrexic, tachycardic and tachypnoeic. You send a urine sample which returns positive for a UTI. You explain the diagnosis to the man, and tell him that he will need antibiotics to get rid of the infection. At this point, he tells you that he has G6PD deficiency.

a) State the function of G6PD? **(6 marks)**

b) Enumerate 3 of the common symptoms of G6PD deficiency? **(6 marks)**

c) Describe the picture of a blood film for this man? **(2 marks)**

d) List 3 signs you might see on examination of a patients' face, skin, and nails that are associated with iron deficiency anaemia. **(6 marks)**

e) Describe the two types of bone marrow **(5marks)**

3. a. Describe hereditary Spherocytosis **(10 marks)**

b. Discuss causes of Aplastic anemia **(5marks)**

c. Discuss splenic sequestration **(10marks)**

4.Discuss the four major types of leukaemia **(25marks)**