Haematology/Oncology – QUESTIONS

SAQ 1

a. List three broad causes of anaemia and give two examples of each. (6 marks)

b. For each of the following parts of the coagulation system, state a blood test that measures each. (3 marks)

Intrinsic pathway
Extrinsic pathway
Fibrinolytic system

c. For each of the following, briefly state a method of reversal in the event of life-threatening haemorrhage. Doses are not required. (4 marks)

Warfarin
Heparin
Dabigatran
Aspirin/clopidogrel

d. Complete the following table regarding blood products. (8 marks)

Product	An indication for giving?	Complication of giving	Type specific needed?
PRBC			
Platelets			
FFP			
Cryoprecipitate			

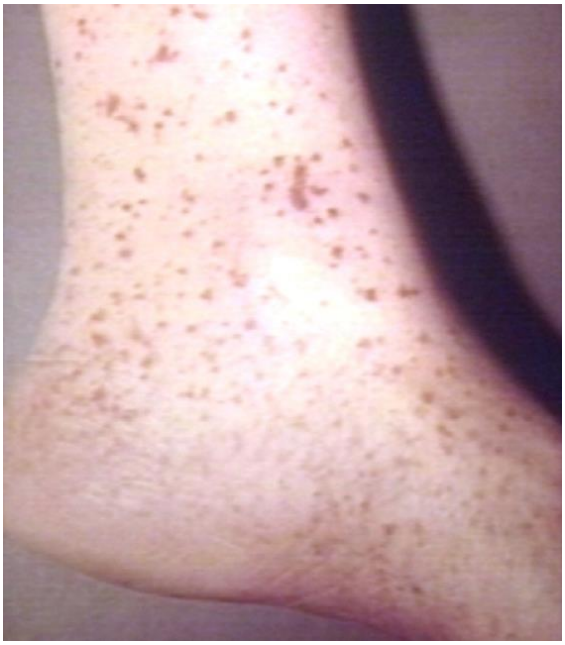
e. List three factors that may affect PT/INR in a patient on warfarin. (3 marks)

SAQ 2

A 33 year old female presents with two days of a non-palpable purpuric rash (shown) and gingival bleeding. She has no other symptoms. She has been well recently and takes no regular medications except PRN aspirin/NSAIDS for migraines and endometriosis. Her LMP was 3/52 ago.

Blood tests are ordered:

Hb 120
WCC 8
Plat 60
CRP 3
Creat 90



a. What is the likely diagnosis? (1 mark)

b. List three management options in order of administration. (3 marks)

c. What two pieces of advice will you give the patient? (2 marks)

SAQ 3

A 26 year old female who is currently 18/40 pregnant presents with fatigue and fever. She assumed it was due to her pregnancy, but was brought in by her husband after developing an acute right facial droop and confusion. She is G1:P0 and has no past medical history. Blood tests are taken (below).

Hb 92
WCC 12
Plat 15
Haptoglobins 15 (41-165mg/dL)
Urea 12
Creatinine 210

a. List three differential diagnoses for her symptoms. (3 marks)

b. A CT scan is negative for acute pathology and her LFTs are normal. List three management options (curative or supportive) you could initiate for her condition. (3 marks)

SAQ 4

A 40 year old female with metastatic breast cancer presents febrile at 39.5˚C. She had chemotherapy seven days ago. Physical examination is unremarkable.

a. List five investigations you will order for this patient and a justification for each. (5 marks)

b. Her WCC is 2.0 with a neutrophil count of 0.7. What is the definition of febrile neutropaenia? (2 marks)

c. Assuming the patient has no allergies and otherwise normal bloods, state two antibiotics you will give. Include dose, route, and the type of organism each will cover. Specific organisms are not necessary but ideal (4 marks)

SAQ 5

A 60 year old male presents with 4 day history of bleeding gums, ecchymoses, fatigue, and bone pain. His observations are normal. Examination reveals no hepatosplenomegaly. Blood tests are ordered and show:

Hb 134
WCC 43; lymphocytes 80%
Plat 107
INR 1.92
D dimer >4

a. State his likely diagnosis and the complication arising from this. (2 marks)

b. List 6 causes of DIC. (6 marks)

c. How are the following blood tests altered in DIC? (4 marks)

D dimer	Increased/decreased
Fibrinogen	Increased/decreased
Platelets	Increased/decreased
PT/PTT	Increased/decreased

d. Soon after arrival, the patient develops haematemesis. How will you treat his DIC now? (3 marks)

SAQ 6

A 67 year old female with chronic angiodyplasia of the bowel requiring recurrent blood transfusions presents to ED with dyspnoea. She has no other medical history of note. She is haemodynamically stable and no abnormalities are found on examination. VBG shows a Hb of 85.

A blood transfusion of PRBC is initiated. Soon after commencement, the patient complains of increasing dyspnoea and the nurse notes a temperature of 37.8°C. She remains otherwise asymptomatic.

a. List three differential diagnoses for the patient's symptoms. (3 marks)

b. State your immediate management steps, including any blood tests you will order. (6 marks)

c. After assessment, the Blood Bank advises you that the patient has had a non-haemolytic febrile reaction. Can the transfusion be recommenced? If so, at what rate? (2 marks)