Australian Institute of
Medical and Clinical Scientists (AIMS)

FELLOWSHIP EXAMINATION example paper

Name:

Candidate No:

HAEMATOLOGY

Compulsory Module HAEM 2
(ROUTINE HAEMOSTASIS)

INSTRUCTIONS TO CANDIDATE

Time allowed is three (3) hours

Answers should be written in the answer book provided, writing on the right-hand page only leaving the margin blank. The facing page may be used for rough work if desired

The examination consists of:

- 2 essay style questions; each question is worth 35 marks.
  (Allow approximately 30 mins each)
- 20 short answer questions; each question is worth 5 marks.

Time allowed for writing is three (3) hours. There is an additional initial reading time of 15 minutes during which notes only may be written on the examination paper but no writing in the examination answer books is permitted at this time.
Candidates may attempt either the essay questions or the short answer questions first.

No papers or books of any kind may be taken into the examination room. No electronic devices of any type* are to be taken in to or accessed in the examination room. A non-programmable calculator only is permitted.

*This includes, but is not restricted to: phones, iPads, iPods, eBook readers, MP3 players, memory sticks (flash drives) and WiFi enabled devices of all types.

THE EXAMINATION PAPER MAY NOT BE REMOVED FROM THE EXAMINATION ROOM

ESSAY ANSWER QUESTIONS

2 Questions - each question is worth 35 marks. Time allocated to each question should not exceed 35 minutes. All questions should be attempted

1. Discuss the operational and analytical features of two of the major large automated coagulation analysers available in Australia with some mention of relative merits. The analysers must come from different vendors.

SHORT ANSWER QUESTIONS

20 Questions - each question is worth 5 marks. Time allocated to each question should not exceed 5 minutes. All questions should be attempted

1. What information does the monthly dispatch report for each run of the RCPA Haematology QAP provide for an individual laboratory's performance for INR?

2. How would you determine the measurement uncertainty (MU) of the Prothrombin Time test in your laboratory? Explain how you would report the MU to a client.

3. Answer each of the following:

   a. How do you convert rpm to g force?
   b. What is a molar solution?
   c. What is a Levy Jennings plot?

4. You have obtained a new pipette. What steps do you take before putting it into routine use?

5. Discuss the collection requirements for coagulation testing of a patient with polycythaemia.

6. What features of a sample should be examined before acceptance for testing in the haemostasis laboratory?

7. A patient is tested on a point of care instrument gives an INR of 7.5. Discuss this result.

8. What factors would influence your decision in choosing a new APTT reagent for your laboratory?

9. A routine post-op sample gives an unexpected prolonged PT and APTT. A sample two days earlier gave normal results. List the possible causes and how they would be investigated and confirmed or eliminated.

10. Discuss the use of the D-dimer test in patients with suspected DVT.

11. What coagulation results are seen in a patient with massive transfusion following blood loss?

12. Construct a table showing typical results for PT, INR, APPT, TT, Fibrinogen, Factor VIII and Factor IX in each of:

    a. Liver disease
    b. Warfarin therapy
    c. Haemophilia

13. List the major defect in:
    a. Gray platelet syndrome
    b. Bernard Soulier syndrome
    c. Glanzmann thrombasthenia
    d. Christmas disease
    e. Essential thrombocythemia

14. List the laboratory tests used in the diagnosis of Heparin Induced Thrombocytopenia. (HIT).

15. What is a “mixing test? When is it used?

END OF EXAMINATION