

Candidate No: \_\_\_\_\_



**The Hong Kong College of Anaesthesiologists**

**Final Fellowship Examinations**

**Paper II – Investigations (1-5)**

**23 March 2023 (Thursday)**

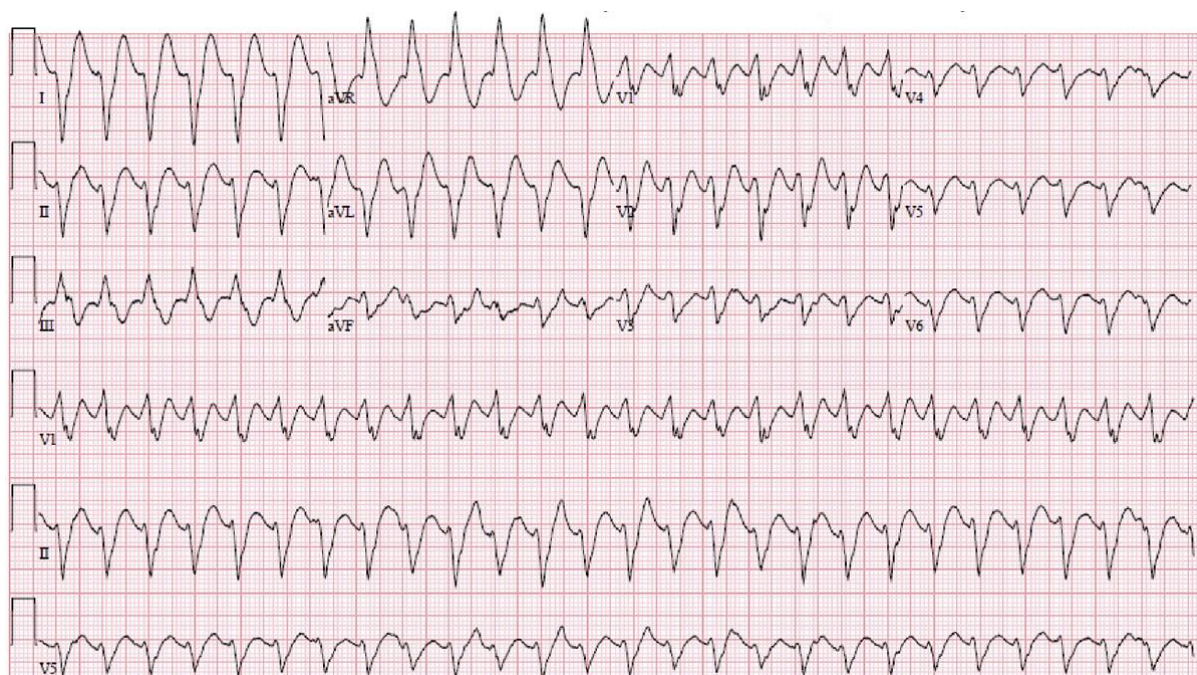
**12:10 – 12:20 hours**

**Instructions:**

- a. This is a question-answer book. Please write your answers in the space provided.
- b. Write your candidate number on the first page of the answer book.
- c. Use ink or ball-point pen.
- d. There are 5 questions in this paper, each with multiple parts.
- e. Answer **ALL** questions. They are worth equal marks.
- f. For questions with multiple parts, allocation of marks is indicated in the brackets.

**Question 1 (8 marks)**

**A 39-year-old lady presents with palpitation, below is her ECG:**



**a) What is your diagnosis? (1 mark)**

---

**List three ECG features to support your answer. (3 marks)**

---

---

---

**b) She is alert, with no other discomfort and maintaining a blood pressure of 120/55mmHg. List one management strategy that is appropriate at this time? (1 mark)**

---

c) List three investigations you would order to look for the underlying causes. (3 marks)

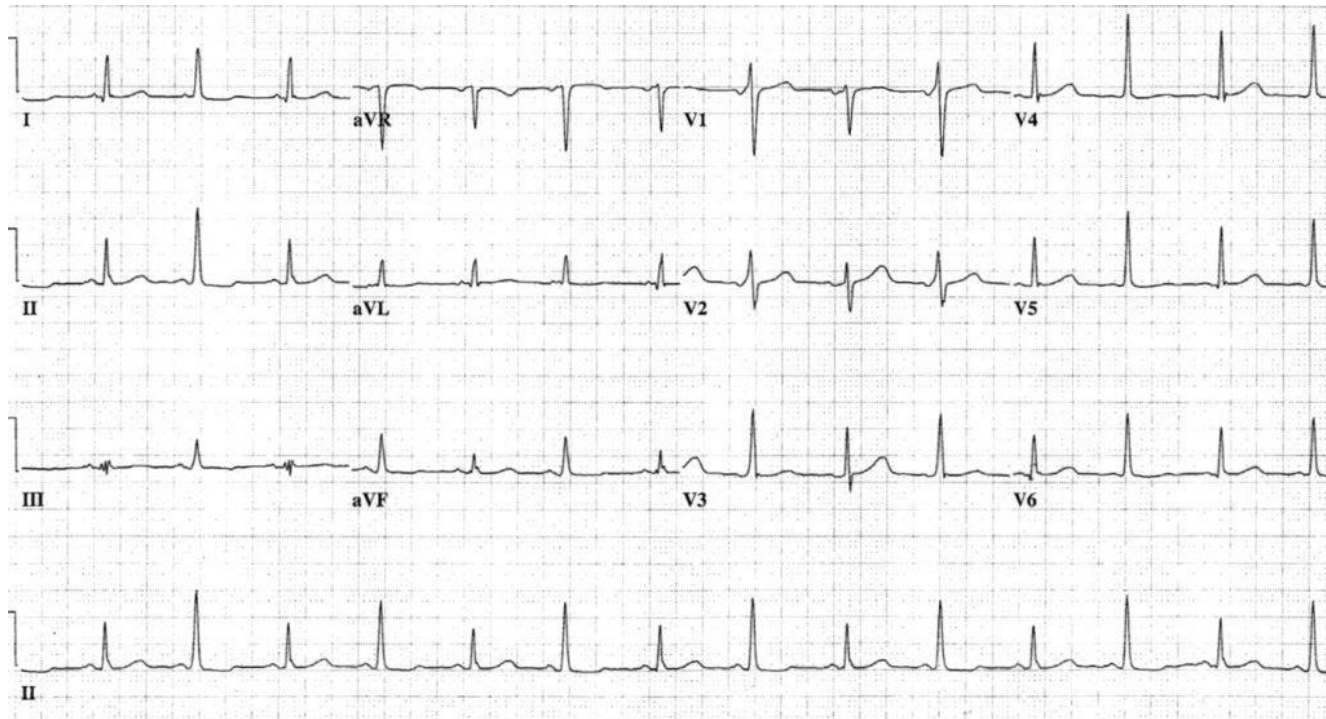
---

---

---

**Question 2 (8 marks)**

A 45-year-old woman presents to the emergency room with chest discomfort and shortness of breath over the past few hours. She has a past medical history of systemic lupus erythematosus. Physical examinations reveal hypotension, muffled heart sounds, distended jugular veins.



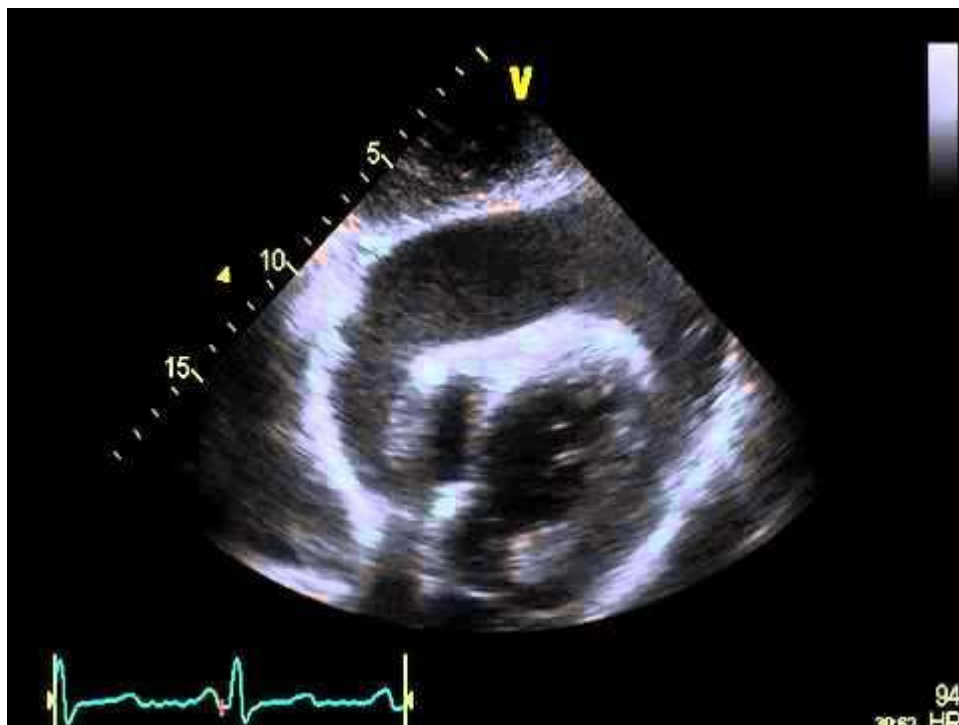
a) Describe the ECG? (3 marks)

---

---

---

An urgent Echocardiogram is performed:



b) What is the diagnosis? (1 mark)

---

c) Name 4 Echo features that suggests presence of haemodynamic instability (4 marks)

---

---

---

---

**Question 3 (8 marks)**

**A 30-year-old nulliparous who has a vaginal delivery 6 hours ago is referred for generalized tonic-clonic seizure. In her history oxytocin infusion has been used to induce labour and continued after delivery to prevent postpartum bleeding.**

**Her latest laboratory tests are as below:**

Blood test		Urine test	
Na	119 mmol/l	Urine osmolality	407 mOsm/kg
K	4.5 mmol/l	Urine Na	51 mmol/l
Urea	5.5 mmol/l		
Creatinine	40 umol/l		
Glucose	6.5 mmol/l		
Calcium	2.24 mmol/l		
Plasma osmolality	204 mOsm/kg		

**a) List three possible causes of seizure in this patient? (3 marks)**

---

---

---

**b) What are the abnormalities in her laboratory test? Explain your answer and postulate the most likely cause. (3 marks)**

---

---

---

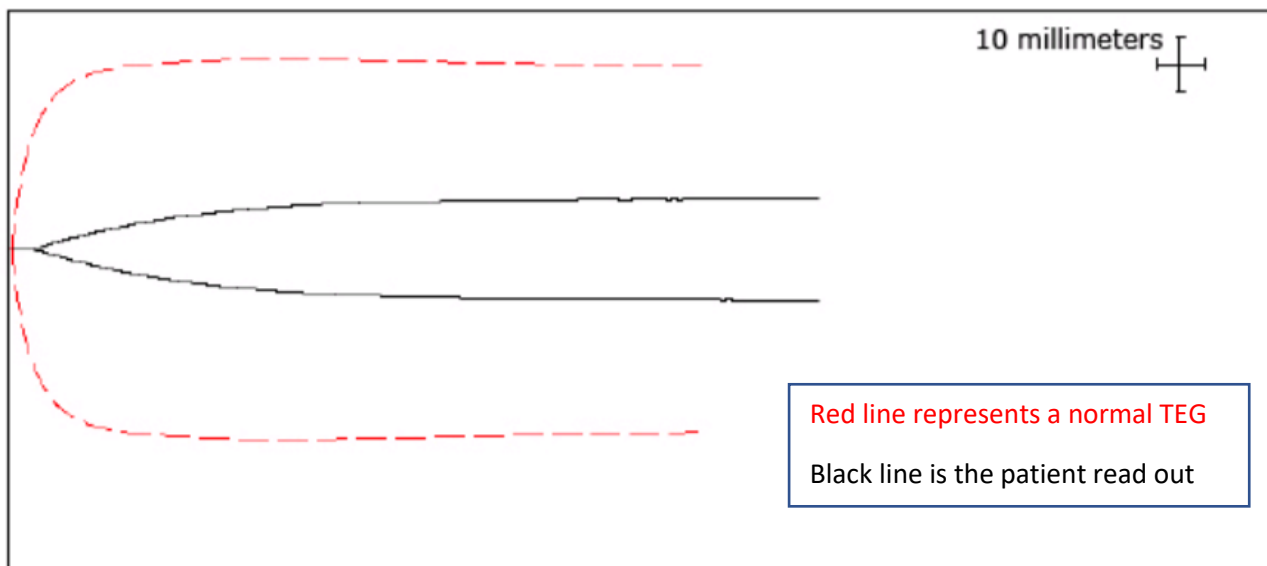
**c) Her seizure stopped and she regained consciousness. What are the two treatment strategies that should be commenced at this time? (2 marks)**

---

---

**Question 4 (8 marks)**

A 17-year-old male arrives after a motor vehicle accident. CT demonstrates liver laceration and open book pelvic fracture. He is intubated and his most recent vitals: BP 90/40mmHg, P125/min. Below is his thromboelastogram (TEG).



R min (2-8)	K min (1-3)	Alpha (55-78)	MA mm (51-69)	Ly30% (0-3)
15	6	32	22	2

a) Describe and interpret the clotting abnormalities in this patient? (3 marks)

---

---

---

b) What will be your management? (1 mark)

---

c) Below is his arterial blood gas at FiO2 45%. How will you manage this? (4 marks)

pH	7.1
pO2	60mmHg
pCO2	50mmHg
BE	-10

---

---

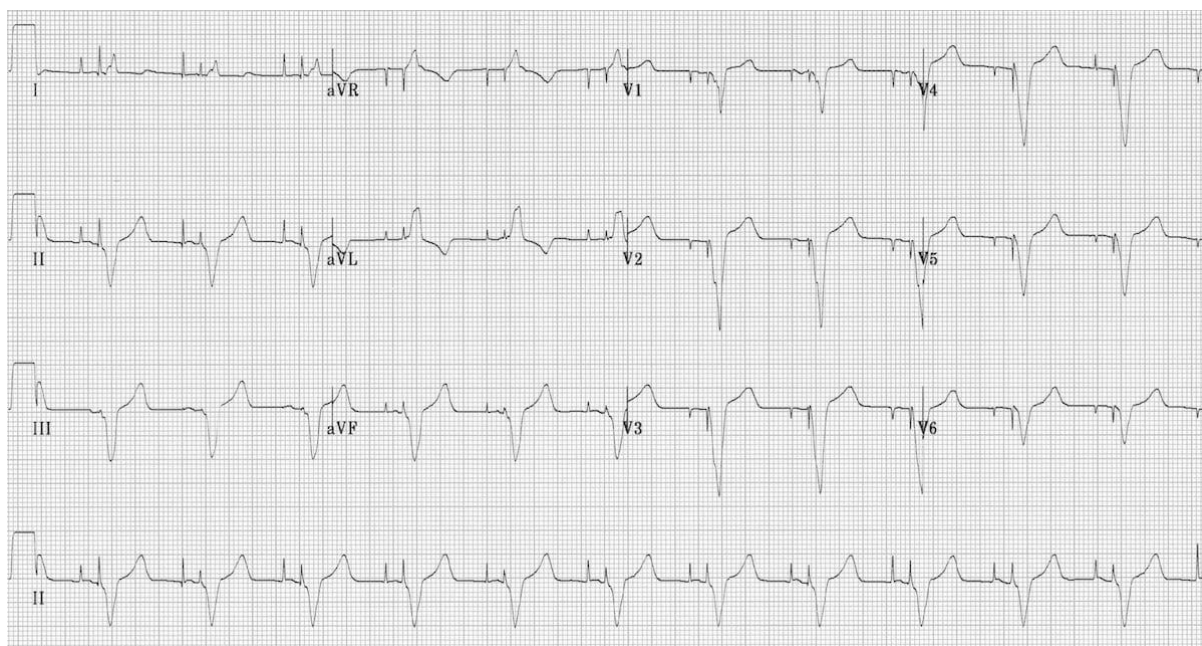
---

---



**Question 5 (8 marks)**

**A 55-year-old male travelling from abroad developed acute appendicitis and booked for emergency laparoscopic appendectomy. He is a poor historian with no medical history obtainable. Below is his preoperative ECG.**



**a) What are your interpretations? (2 marks)**

---

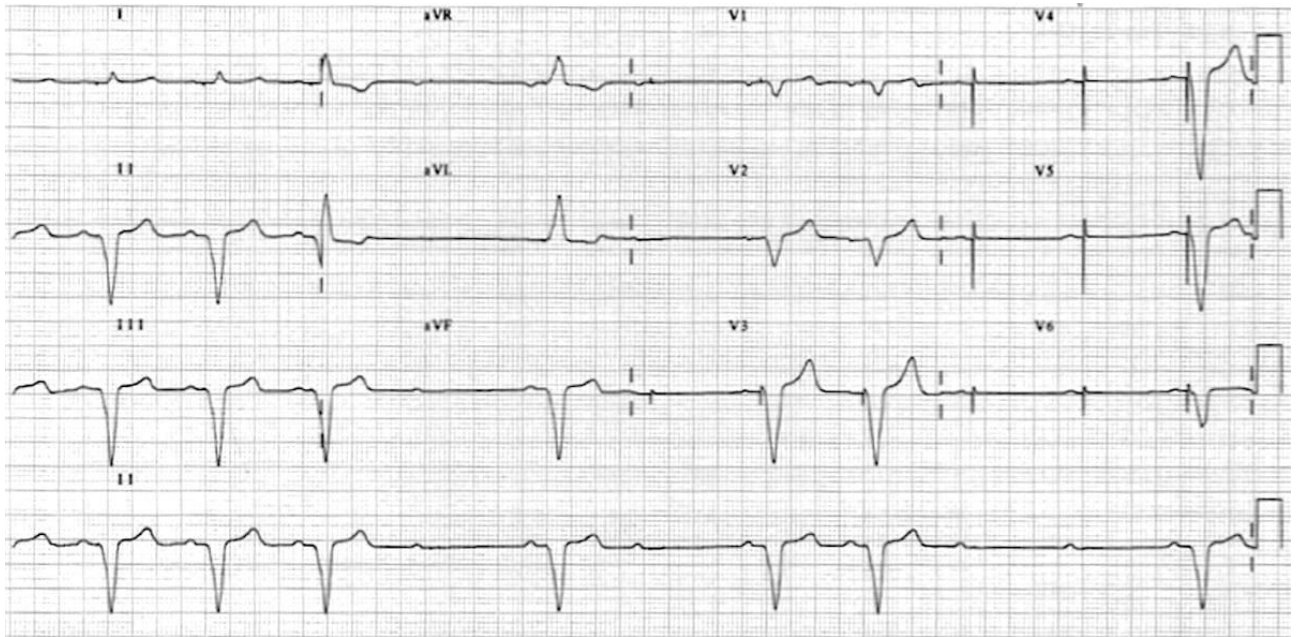
---

**b) What are the possible indications for your answer to question a? (2 marks)**

---

---

Postoperative he developed bradycardia with repeated ECG as below.



c) What are the abnormalities? (2 marks)

---

---

d) What are the possible causes for the above abnormalities. (2 marks)

---

---

----- End of Paper -----