

Candidate No: _____



The Hong Kong College of Anaesthesiologists

Final Fellowship Examinations

Paper II – Investigations

16 March 2026 (Monday)

12:20 – 12:30 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 4 questions in this paper, each with multiple parts.
- e. Answer **ALL** questions.
- f. For questions with multiple parts, allocation of marks is indicated in the brackets.

Question 1 (8 marks)

A 38-year-old man with history of chronic alcoholism presented to the Emergency Department for severe abdominal pain. He was confused with irrelevant speech. Physical examination revealed equivocal tenderness. Surgical plan for CT imaging before definitive treatment. His first blood results shown as below:

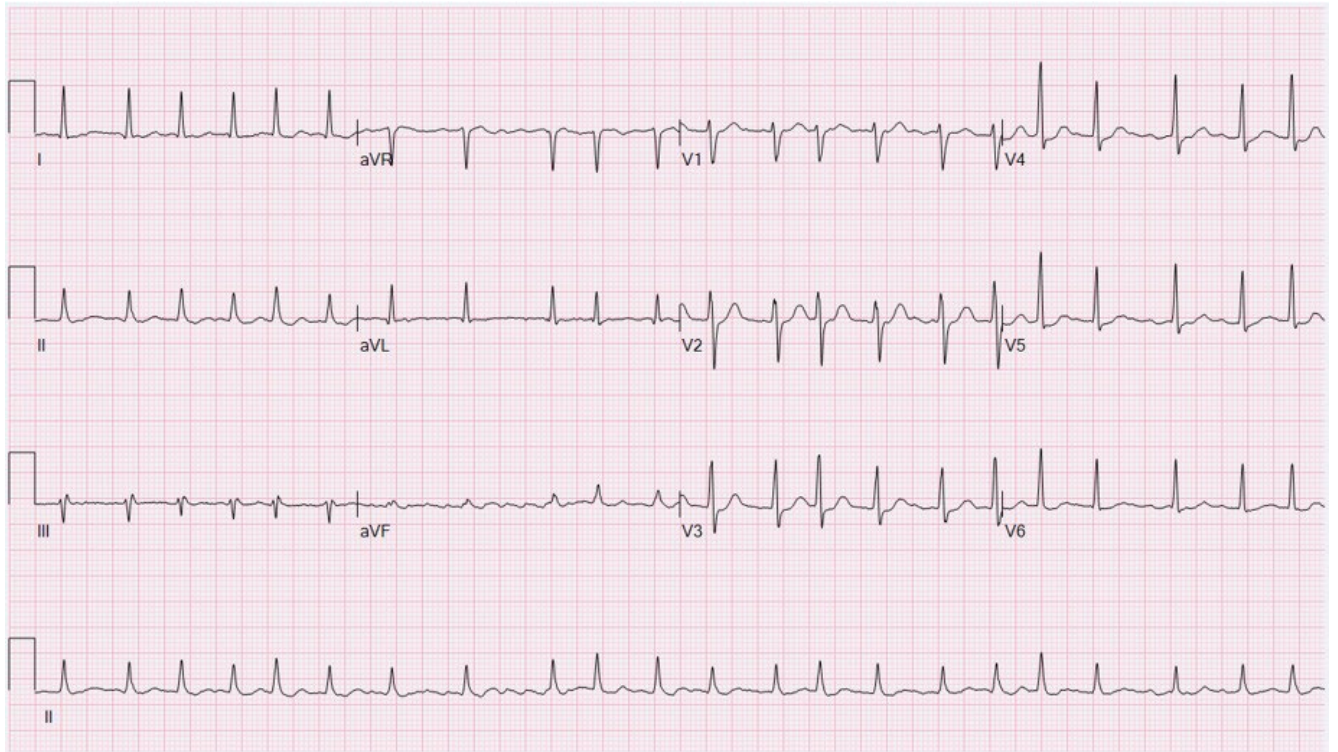
Parameter	Patient Value	Normal Adult Range
Sodium	122 mmol/L*	138 – 145
Potassium	3.5 mmol/L	3.5 – 5.0
Creatinine	280 µmol/L*	40 – 100
Urea	7.0 mmol/L	3.1 – 7.5
Bilirubin (total)	480 µmol/L *	2.0 – 22.0
Protein (total)	38 g/L*	65 – 85
Albumin	22 g/L*	38 – 48
Alkaline phosphatase (ALP)	180 IU/L*	40 – 100
Gamma glutamyl transferase (GGT)	550 IU/L*	0 – 50
Alanine aminotransferase (ALT)	360 IU/L*	0 – 45
Creatine kinase (CK)	420 IU/L*	30 – 180
Glucose	2.8 mmol/L*	3.5 – 4.6
Ammonia	385 µmol/L*	0 – 50
Lactate	4.6 mmol/L*	0.6 – 2.4

1. Comment, with explanation, on FIVE of the biochemical abnormalities. (5 marks)

2. List THREE possible causes of his altered conscious state. (3 marks)

Question 2 (10 marks)

A 60-year-old male is scheduled for left total knee replacement and he attended the Pre-assessment clinic today complaining of recent onset of palpitation and dizziness.



1. Interpret this ECG. (1 mark)

2. List THREE risk factors for new-onset atrial fibrillation. (3 marks)

3. Give THREE treatment strategies with examples for new-onset atrial fibrillation. (6 marks)

Question 3 (10 marks)

A 30-year-old female who is 34 weeks pregnant (G1P0) has presented with nausea and vomiting for 3 days with right upper quadrant pain. On examination she is confused, jaundiced with a blood pressure of 120/70 mmHg.

The following are results from a venous blood sample taken on admission:

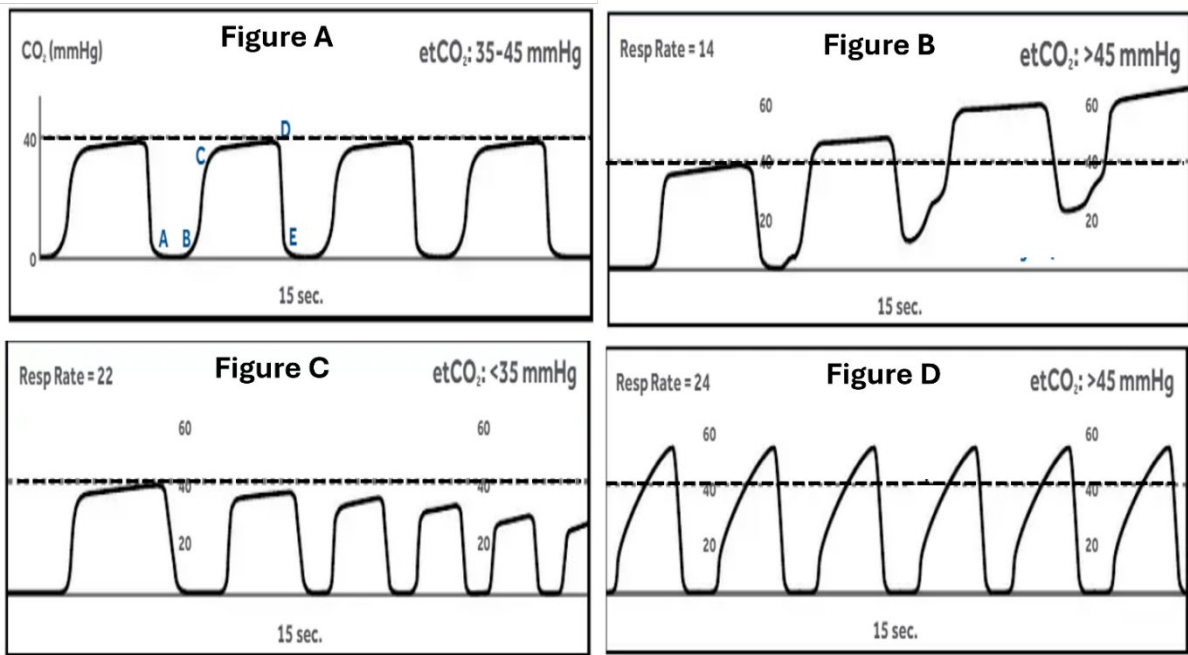
Parameter	Patient Value	Normal Adult Range
Sodium	138 mmol/L	135 - 145
Potassium	3.8 mmol/L	3.5 - 5.0
Urea	15.0 mmol/L*	3.0 - 8.0
Creatinine	245 µmol/L*	45 - 90
Albumin	30 g/L*	33 - 40
Glucose	2.5 mmol/L*	3.0 - 7.8
Bilirubin (total)	142 µmol/L*	< 20
Alkaline phosphatase	293 U/L*	30 - 110
Aspartate aminotransferase	99 U/L*	< 31
Alanine aminotransferase	88 U/L*	< 34
γ-Glutamyl transferase	67 U/L*	< 40
Lactate dehydrogenase	180 U/L	110 - 250
Uric acid	0.72 mmol/L*	0.15 - 0.50
Activated partial thromboplastin time	45 sec*	36 - 38
International normalised ratio	2.8*	0.9 - 1.3
Platelets	123 x 10 ⁹ /L*	150 - 450

1. List FIVE abnormalities from the above blood results. (5 marks)

2. List THREE likely differential diagnoses for the above clinical picture. (3 marks)

3. Name TWO management options for this condition. (2 marks)

Question 4 (10 marks)



1. Figure A is a normal waveform capnogram, name the following: (4 mark).

- a. Phase B – C _____
- b. Phase C - D _____
- c. Point D _____
- d. Phase D – E _____

2. Referring to Figure B to D, give 2 possible causes for each waveform (6 marks).

- a. Figure B _____

- b. Figure C _____

- c. Figure D _____

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