



Fellowship Practice Exam

May 2017 - Book 3

WRITTEN EXAMINATION SHORT ANSWER QUESTIONS

EXAMINATION TIME: 3 HOURS - 1 hour per booklet

Directions to Candidates

This booklet is one of three. It contains 9 questions. Allow 9 minutes for 3 page questions (19 and 27), and 6 minutes for 2 page questions (20 - 26). The entire booklet should take you 1 hour to complete.

1. Answer each question in the space provided in this question paper.
2. Do not write your name on this question paper.
3. Write your candidate number **on each page** in the space provided.
4. Cross out any errors completely.
5. Do not begin the exam until instructed to do so.
6. No examination papers or materials to leave the room.
7. Props are provided in a separate booklet.

Question 19 (18 marks)

A 35 year old woman presents following one episode of haematemesis. She has no documented past history, but reports a long history of excessive alcohol consumption. She takes no regular medications.

Her observations are:

BP	135/65	mmHg
HR	85	/min
Sats	99%	RA
Temp	37°C	

- a. State five (5) points to explain your approach to volume replacement for this patient. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

Question 19 (continued)

b. What is the role of antibiotics for this patient? State two (2) points in your answer. (2 marks)

1. _____

2. _____

The patient is observed in your department. Investigations are pending.

c. List five (5) markers that may be used to predict the need for transfusion or urgent endoscopy for this patient. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

Question 19 (continued)

d. What is the role of proton pump inhibitors for this patient? State three (3) points in your answer. (3 marks)

1. _____

2. _____

3. _____

e. What is the role of Tranexamic acid for this patient? State three (3) points in your answer.

1. _____

2. _____

3. _____

Question 20 (14 marks)

A ten day-old male infant presents with poor feeding and breathlessness. He is poorly perfused on your initial assessment.

a) List four (4) important differential diagnoses. (4 marks)

1. _____

2. _____

3. _____

4. _____

b) List four (4) important features which should be sought on examination to assess for possible cardiac pathology.(4 marks)

1. _____

2. _____

3. _____

4. _____

Question 20 (continued)

The child progressively deteriorates in the ED with very poor perfusion and decreased conscious state.

c) List six (6) important management steps of his shock. (6 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Question 21 (12 marks)

A 30 yo man presents after accidentally stepping off the back of a truck 1.5m above ground level. He is complaint of severe knee pain. His BP 160/80 mmHg and HR 110 bpm .

His X-rays are available in PROPS BOOKLET ; page 10.

a) List three (3) abnormalities on this X-rays (3 marks)

1. _____

2. _____

3. _____

b) What is your diagnosis? (1 mark)

c) List four (4) immediate (early) complications of this injury. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 21 (continued)

d) List four (4) Imaging options. State one (1) justification for each choice. (4 marks)

	Imaging	Justification
1		
2		
3		
4		

Question 22 (10 marks)

A 26 year old male, with no English from Vietnam has been brought to the Emergency Department following a syncopal episode. Your registrar says that blood tests including urea and electrolytes and troponin are normal and that the patient is well.

He attributes the episode to a “Vasovagal” and would now like to discharge the patient.

He tells you that the patient has a right bundle branch block, that he is not concerned about, but would like you to “sign off” on the patient’s ECG as it is “Department Policy” for a Consultant to do this “in hours”.

The patient’s ECG is shown in PROPS BOOKLET ; Page 11 .

a) State two (2) educational points to the registrar relating to the ECG. (2 marks)

1. _____

2. _____

You enlist the assistance of a Vietnamese Interpreter.

b) List two (2) important questions you would like to ask this patient.(2 marks)

1. _____

2. _____

Question 22 (continued)

The patient suddenly feels faint but remains alert - whilst an ECG is being done, the registrar asks for procainamide to be on hand, as he has read recently that this may be more effective than amiodarone in the setting of VT .

c) Give three (3) educational responses to this suggestion. (3 marks)

1. _____

2. _____

3. _____

The symptoms resolve and the patient feels well. An ECG trace was not able to be procured documenting the event.

The patient, through the interpreter, says he now feels well and wishes to discharge himself.

d) State three (3) points would you make to the patient (3 marks)

1. _____

2. _____

3. _____

Question 23 (12 marks)

You are the Emergency Physician in Charge for a regional hospital emergency department. It is 1600 hrs on Weekday. You've been notified by rural emergency services that 10 people are involved in a major road traffic accident, details to come later. Emergency department status as the following :

- 2 Resus cubicles:

A 19 year old female with poly-pharmacy overdose and altered conscious state.

A 65 year old male with AMI who completed thrombolysis 1 hour ago and has experienced no complications awaiting transfer to a tertiary hospital.

- 10 general cubicles:

8 patient awaiting to be seen and 2 vacant cubicles

a) State three (3) specific preparation that you would make for this particular incident (3 marks)

1. _____

2. _____

3. _____

Question 23 (continued)

b) State six (6) steps in preparing your department prior to patient's arrival (6 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

You have been asked to review the current guidelines for disaster management in your department.

c) State three (3) important steps for this process (3 marks).

1. _____

2. _____

3. _____

Question 24 (10 marks)

A 69 year old morbidly obese man has presented to a rural emergency department with two days of worsening dyspnoea.

Vital Signs:	HR	124
	BP	90/54
	RR	36
	Sats	90% on 8l/min Hudson mask
	Temp	38.8C

He has been treated for respiratory sepsis and has had initial resuscitation with 3 litres normal saline and IV Ceftriaxone and Azithromycin, as per local antibiotic guidelines.

The local doctor is requesting retrieval of the patient to a tertiary hospital as the hospital has no HDU facility. You are the retrieval co-ordinator, and the local doctor is seeking advice on how to optimise the patient whilst they wait for the retrieval team.

During the conversation you review the following point of care arterial blood gas (ABG) & vital signs:

pH	7.10	(7.35-7.45)
paO ₂	59	(80-100)
SaO ₂	91	
paCO ₂	60	(35-45)
HCO ₃	16	(22-27)
BE	-9	
Lactate	6	(<2.0)
HR	119	bpm
BP	89/47	mmHg
RR	38	/min
Sats	91%	on 15L NRM

a) What is the acid-base abnormality? (1 mark)

Question 24 (continued)

- b) List three (3) key steps in the management you would recommend be instituted in the anticipated 2 hours prior to retrieval team arrival? (3 marks)

1. _____

2. _____

3. _____

When the retrieval registrar arrives at the referring hospital the patient is still receiving oxygen via a non-rebreather mask and their ABG results are similar to those above. The patient is co-operative but does find the face-mask uncomfortable. The patient is to be transported by fixed wing transport (2 hours including transfers).

- c) Complete the following table indicating the relative risks and benefits of respiratory support options for this patient. (6 marks)

	Non-rebreather Mask (NRM)	Non-Invasive Ventilation (NIV)	Intubation & Ventilation (IPPV)
Risk			
Benefit			

Question 25 (12 marks)

A 24 year old apprentice electrician has been brought to the Emergency Department having suffered an industrial electrocution, while working in the rain. He has burns to both his hands; and he complains of some dizziness, and severe pain in his arms.

a) List four (4) factors that may influence the severity of injury in this man. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 25 (continued)

b) Apart from his hand wounds, list the four (4) most likely tissues to be injured in this man, giving the type of injury for each. (8 marks)

	Tissue	Type of injury
1		
2		
3		
4		

Question 26 (13 marks)

You are the Emergency Consultant in-Charge in a Tertiary Emergency Department, and have been given pre-notification about a 20 year old male that has allegedly been stabbed in the anterior neck and actively bleeding . The Ambulance will arrive in 10 minutes and his current vital signs:

BP	100/75	mmHg
HR	85	/min
RR	22	/min
Sats	92%	RA
Temp	36°C	
GCS	14	(Intoxicated)

a) State four (4) preparation priorities before this patient's arrival. (4 marks)

1. _____
2. _____
3. _____
4. _____

Upon arrival he has active, non pulsatile bleeding from a single wound in Zone II (Roon and Christianson Classification).

b) State the boundaries of Zone II of the neck. (1 mark)

Question 26 (continued)

c) List four (4) important anatomical structures in Zone II. (4 marks)

1. _____

2. _____

3. _____

4. _____

d) List four (4) hard aerodigestive signs in penetrating neck trauma that would mandate emergent theatre? (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 27 (17 marks)

A 48 year old woman with shortness of breath for 2 days. She has a history of diabetes and depression. Her LMO has been treating her for an URTI without improvement.

On assessment she is awake and oriented. Her vital signs are:

BP	150/90 mmHg
HR	120 /min
Sats	99% RA
Temp	36.8°C

Her arterial blood gas is shown in PROPS BOOKLET ; Page 12 .

a) What is the acid base abnormality? (1 mark)

b) Complete the table below showing requested calculations (4 marks)

	Calculations and results
A-a gradient	
Delta gap	
Expected K (Normal = 4)	
Corrected Na	

Question 27 (continued)

c) List three (3) essential treatments for this patient including dosage. (6 marks)

	Treatment	Dosage
1		
2		
3		

Question 27 (continued)

Four hours after commencement of treatment the patient becomes drowsy and responsive to only painful stimuli.

d) List three (3) essential investigations that should urgently be performed with one justification for each. (6 marks)

	Investigation	Justification
1		
2		
3		