



# **Fellowship Practice Exam**

**September 2019 - Book 2**

## **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 (10 and 18), and 6 minutes for 2 page questions (11 - 17). 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 10 (16 marks)**

A 12 year-old boy is brought by his anxious father to your Emergency department and triaged to the resuscitation cubicle. He had a tonsillectomy 3 days prior and has been vomiting blood for the last hour which became more severe en route.

He is agitated and his vital signs on arrival:

RR	24/min
HR	130 bpm
BP	90/40 mmHg
O2 Sat	70% on room air

- a) Excluding vital signs, list four (4) clinical findings helping you to estimate the amount of blood loss. (4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

- b) Showing your formula, calculate the minimum systolic blood pressure you would accept in this child. (2 marks)

\_\_\_\_\_

\_\_\_\_\_

**Question 10 (continued)**

c) State Five (5) immediate management steps in this situation. (5 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**Question 10 (continued)**

The ENT team is 30 minutes away. Despite appropriate management the patient is still hypoxic, agitated and bleeding. You decide to secure his airway.

c) State Five (5) modifications you would apply to your routine rapid sequence induction technique in this situation. (5 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**Question 11 (12 marks)**

A 24 year old man is brought to the ED, in a car, by his friends following a suspected overdose of methadone. He has a GCS of 7 and pinpoint pupils.

a) State your three (3) immediate management priorities for this patient (3 Marks)

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

He responds appropriately to your initial treatment, but twenty minutes later his observations are:

GCS	12
RR	8/min
HR	100 bpm
BP	140/70 mmHg
O2 Sat	94% on room air

b) State your next four (4) steps in his management. (4 marks)

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_

**Question 11 (continued)**

c) List five (5) clinical features of opioid withdrawal. (5 Marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**Question 12 (12 marks)**

A 48-year-old man presents to your Emergency Department with 24 hours of colicky flank pain. You suspect renal colic.

- a) List four (4) reassuring features on clinical assessment that would dissuade you from performing a CTKUB on this patient. (4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Question 12 (continued)**

b) Complete the following table with regards to choice of imaging modality in renal colic. (4 marks)

<b>Imaging Modality</b>	<b>Cons</b>
<b>Renal Ultrasound</b>	1
	2
<b>CT KUB</b>	1
	2

A CTKUB is performed. An axial image from the CTKUB is shown in the **Props booklet; page 4**.

c) List four (4) abnormalities visible on this CTKUB image. (4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_



**Question 13 ( 16 marks )**

You have been asked to retrieve a 20 year old male, who was in a high speed MVA from a small peripheral hospital 100km away, by helicopter. His communicated injuries include rib fractures, fractured right femur and a traumatic subarachnoid haemorrhage. His Vital signs:

BP	108/60	mmHg
HR	105	bpm
Temp	36.9	°C
RR	28	bpm
Sat	92%	RA
GCS	14	(E4,M6,V4)

a ) List Two (2) important steps in your preparation of this man for transport under each of the headings airway, breathing and circulation. (6 marks)

**Airway**

1. \_\_\_\_\_

2. \_\_\_\_\_

**Breathing**

1. \_\_\_\_\_

2. \_\_\_\_\_

**Circulation**

1. \_\_\_\_\_

2. \_\_\_\_\_

**Question 13 ( continued)**

b) State Six (6) steps to optimise his ICP? ( 4 marks )

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

**Question 14 (12 marks)**

A 30 year old woman presents with sudden severe abdominal pain and hypotension. She states she is 38 weeks into her third pregnancy and has been feeling intermittent contractions for the past day. She is distressed and clammy, with a systolic blood pressure of 60mmHg. Resuscitation is commenced by emergency staff.

a) List three (3) causes of abdominal pain and cardiovascular collapse during third trimester or labour. (3 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

b) A bedside ultrasound is performed, with a view of the right upper quadrant seen in **PROPS BOOKLET ; page 5**. Identify labeled findings. (3 marks)

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

**Question 14 (continued)**

c) State two (2) important management changing interpretation based on the ultrasound findings, in the context of this presentation (2 points).

1. \_\_\_\_\_

2. \_\_\_\_\_

d) State four (4) different aspects of resuscitation of a patient with advanced pregnancy (4 points).

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Question 15 (12 Marks)**

A 75 year old female has re-presented with left hip pain following a fall. You note she was seen in your ED on a night shift after her fall four days ago, and was discharged with a diagnosis of hip sprain. X-rays at the time were documented as normal by the junior doctor who was treating her, but have since been reported as demonstrating an impacted sub-capital fracture of the neck of femur.

a) List four (4) key issues present in this case that may have contributed to this missed injury. For each issue, list ONE potential strategy to prevent recurrence of this situation. (8 marks)

	<b>Issue</b>	<b>Strategy</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		

**Question 15 (continued)**

The patient's daughter is furious that her mother was sent home "with a broken hip". She wants to know how this happened.

b) List Four (4) key steps in your response to this situation (4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Question 16 (12 marks)**

An eight year-old boy presents to your emergency department with redness and swelling around his right eye.

His photo is shown in **PROPS BOOKLET; Page 6.**

a) List Four (4) features on history and examination which can help to distinguish peri-orbital (pre-septal) from orbital (post-septal) cellulitis.(8 marks)

	<b>Periorbital (pre-septal) cellulitis</b>	<b>Orbital (post-septal) cellulitis</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		

**Question 16 (Continue)**

Due to a high clinical suspicion of orbital cellulitis, an orbital CT scan was performed, demonstrating an orbital collection with a large subperiosteal abscess.

b) List four (4) specific management steps you would perform in this patient.  
(4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_



**Question 17 (12 marks)**

A 20 year old previously well man brought into your resuscitation cubicle. He is feeling lightheaded and dizzy and his friend states that he nearly collapsed. He has no specific past medical history and is not on any medication. He is alert and oriented and his current BP is 95/70 mmHg.

His ECG is shown in **PROPS booklet ; page 7.**

a) What is the diagnosis? (1 mark)

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b) List three features on the ECG that support this diagnosis. (3 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**Question 17 (12 marks)**

c) List the next Six (6) steps you would take in order to manage this patient.  
(6 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

d) List two (2) Anti-arrhythmic medications you would avoid using in patients with this rhythm (2 marks).

1. \_\_\_\_\_

2. \_\_\_\_\_

**Question 18 (18 marks)**

A 36 year old elite athlete presents after completion of a half marathon. He struggled to finish the race and collapsed soon after crossing the finishing line. The ambient temperature is 36 degrees. On arrival his vital signs include:

GCS            12    (E3 V4 M5)  
 HR             130   bpm  
 BP             85/50 mmHg  
 Temp          40.7 °C

- a) Complete the following table regarding causes of hyperthermia by providing 2 examples for each type listed. (6 marks)

<b>Cause</b>	<b>Example 1</b>	<b>Example 2</b>
<b>Excessive heat production</b>		
<b>Diminished heat dissipation</b>		
<b>Hypothalamic Dysfunction</b>		

**Question 18 (continued)**

b) Besides information already provided List two (2) predisposing factors for Heat stroke in this patient (2 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

c) List four (4) cardinal clinical features (from different systems) that you would expect to find in this patient (4 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Question 18 (continued)**

d) State your six (6) ED treatment priorities for this patient (6 marks)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_