

Candidate number \_\_\_\_\_



# Fellowship Practice Exam

**November 2016 - Book 1**

## **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 (1 and 9), and 6 minutes for 2 page questions (2 - 8). 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 1 (21 marks) 9 minutes**

You are a consultant in charge in a tertiary emergency department at 2300 hrs. You overhear a junior medical officer- who recently commenced night shift- asking a nursing staff member to arrange the discharge of a 72 year-old man, whom he has diagnosed with renal calculi. Nursing staff express their concerns with you as they state that the patient has ongoing right sided abdominal pain. You have not worked with the medical officer before.

a ) State five steps (5) that you would take in this circumstance. (5 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

b ) State five (5) limitations to the performance of bedside ultrasound to rule out AAA for this patient. (5 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Question 1 (continued)**

c ) State four (4) ultrasound features that are consistent with AAA rupture. (4 marks)

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

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

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

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

**A CT abdomen is taken and shown in PROPS booklet ; page 3 .**

d ) State three (3) abnormal findings in the CT scan. (3 marks)

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

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

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

**Question 1 (continued)**

His vital signs post CT are as follows (he has not received fluid intravenously).

BP	80/40	mmHg
PR	90	/min
RR	16	/min
O2 Saturation	98%	on room air
Temperature	37.5°C	

e ) What is your approach to his fluid resuscitation? State four (4) points in you answer.(4 marks)

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

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

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

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

**Question 2 (16 marks) 6 minutes**

A 70 years old man has been brought to the ED with marked dyspnea.

**An ECG has been recorded and shown in PROPS booklet ; page 4 .**

a ) State four (4) abnormalities of his ECG. (4 marks)

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

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

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

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

b ) Provide a unifying diagnosis for these abnormalities stating two (2) points in your answer? (2 marks)

\_\_\_\_\_

\_\_\_\_\_

c ) List three (3) medications that you would consider for this patient. (3 marks)

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

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

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

**Question 2 (continued)**

d ) List two (2) procedures that may improve his dyspnoea.(2 marks)

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

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

e ) The patient is found to be on warfarin and has an elevated INR. State four (4) factors that would help you determine if his warfarin activity should be reversed. (4 marks)

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

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

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

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

f ) Patient experiences a VF arrest. What modification to standard defibrillation will be required?

(1 mark)

\_\_\_\_\_

\_\_\_\_\_

**Question 3 (16 marks) 6 minutes**

An 8yo boy presents to your tertiary ED following a fall from a trampoline.

**His 2 X-rays are shown in PROPS Booklet, Page 5 .**

a) State four (4) abnormal radiological findings on the two X-rays (4 marks)

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

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

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

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

b) State four (4) immediate management priorities for this patient (4 marks)

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

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

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

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

**Question 3 (continued)**

- b) List four (4) potential acute complications from this injury. State one (1) finding on examination (or clinical finding) that would support each complication. (8 marks)

	<b>Acute complication</b>	<b>Assessment</b>
<b>1</b>		
<b>2</b>		
<b>3</b>		
<b>4</b>		



**Question 4 (20 marks) 6 minutes**

A 68 year old man is found wandering the streets at 3am. He is confused and his vital signs are:

GCS 14

BP 124/70 mmHg

PR 50 regular

RR 20 /min

Temperature 31°C

**An ECG is taken and shown in PROPS booklet, page 6 .**

a ) State four (4) features on this ECG consistent with hypothermia (4 marks)

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

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

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

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

b ) List three (3) factors associated with a greater chance of survival in hypothermia In the event of cardiac arrest (3 marks)

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

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

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

**Question 4 (continued)**

c ) List five (5) parameters which may identify the non-salvageable patient in hypothermia (5 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

d ) Complete the table below showing four (4) warming strategies in patients with hypothermia and the associated temperature rise / hour (°C) .(8 marks)

**Endogenous rewarming has been completed for you as an example.**

	Warming technique	Temperature rise °C / hour
	Endogenous rewarming	0.5-1
1		
2		
3		
4		

**Question 5 (15 marks) 6 minutes**

A 49-year-old man presents to your regional Emergency Department with haematuria.

**You order a CT KUB and it's shown in PROPS booklet ; page 7 .**

a ) State three (3) abnormalities in his CT KUB (3 marks).

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

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

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

b ) State the most likely diagnosis. (1 mark)

\_\_\_\_\_

c ) List five (5) symptoms (other than haematuria) ,that this patient may experience. (5 marks).

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

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

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

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

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

**Question 5 (continued)**

d) List 3 renal and 3 non renal causes requiring urgent renal replacement therapy?( 6 marks)

	Renal	Non Renal
1		
2		
3		

**Question 6 (11 marks) 6 minutes**

A previously well 1 year-old girl, estimated weight of 10 kg, presents to the ED with lethargy. Shortly after arrival, she suffers a generalised tonic-clonic seizure. She is afebrile.

a ) How long can you allow the seizure to continue before treatment with anticonvulsant medication? (1 marks)

\_\_\_\_\_

You fail IV access and the seizure persists past your time frame as stated in part (a).

b) List 3 options for providing non- intravenous anticonvulsant medication.(3 marks)

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

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

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

The child continues to seize after your initial management. A blood glucose is recorded as 1.4 mmol/L.

c ) List two (2) of your next treatment steps (2 marks)

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

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

**Question 6 (continued)**

d ) List five (5) likely causes for her hypoglycaemic state?(5 marks)

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

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

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

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

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

**Question 7 (16 marks) 6 minutes**

A 65 yo man presents to the ED with 3 weeks of ongoing severe left ear pain & discharge.  
He has been seen twice by his LMO and managed with sofradex ear drops and augmentin tablets.

His Vital signs :

BP 130/70 mmHg

HR 110 bpm (regular)

RR 20 /min

**The photo of his ear is shown in PROPS booklet ; page 8.**

a ) What is the most likely diagnosis (1mark)

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b ) List four (4) investigation with one Justification for each (8 marks)

	investigation	Justification
1		
2		
3		
4		

**Question 7 (continued)**

c ) List four (4) potentially serious / life threatening complications of this condition (4 marks)

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

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

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

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

d ) State three (3) aspects of your treatment ( including dose / duration where relevant) (3 marks)

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

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

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



**Question 8 (15 marks) 6 minutes**

A 36 year old female presented to your tertiary emergency department with severe headache. Whilst one of your registrars is performing a lumbar puncture, the patient experiences a tonic clonic seizure.

a ) List Six (6) potential causes for her seizure (6 marks)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

**A CTB that is subsequently performed is shown in PROPS booklet ;page 9 .**

**Question 8 (continued)**

b ) list three (3) congenital and three (3) acquired differential diagnosis for her CT findings ( 6 marks)

	<b>Congenital</b>	<b>Acquired</b>
1		
2		
3		

c ) list three (3) clinical features which mandate CT prior to LP in the setting of headache. (3 marks)

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

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

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

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**Question 9 (19 marks) 9 minutes**

A 28 year-old man fell off his snowboard, landing on his outstretched left hand. He presented to the local clinic, where x-rays of the injured limb were taken . He was transferred to your ED.

**His Xray is shown in PROPS booklet ; page 10 .**

a ) State 5 key descriptors of this patient's injuries, as shown on x-rays (5 marks)

1. Fracture pattern \_\_\_\_\_

\_\_\_\_\_

2. Fracture site \_\_\_\_\_

\_\_\_\_\_

3. Boney displacement \_\_\_\_\_

\_\_\_\_\_

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

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

**Question 9 (continued)**

b ) State the summary of this injury AND the implications for treatment.(2 marks)

1. Summary:

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2. Implications for treatment:

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**Question 9 (continued)**

c ) Complete the following table about wrist fractures in adults. Assume these are isolated injuries..  
(diagrams will be impossible to mark as many will be equivocal) (12 marks)

Injury Type / Name	Typical mechanism(s) of injury one (1) for each	Fracture(s) Description as seen on x-ray two (2) for each
Colles		
Smith		
Dorsal Barton		
Volar Barton		