

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



# Fellowship Practice Exam

**November 2016 - 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 ( 22 marks ) - 9 minutes**

You are in a Rural Emergency Department, when you receive ambulance pre-notification of a 24 year old Male, involved in a motorbike accident, with primarily right abdominal and pelvic injuries. His vital signs: GCS 15 HR 130 BP 75/45 SaO<sub>2</sub> 98% on room air RR 24 and Temperature 35°C. The estimated time of arrival is 10 minutes.

a ) List Four (4) important preparations you would undertake prior to his arrival (4 marks).

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

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

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

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

On arrival, the patient's vital signs remain unchanged despite administration of 2 litres of normal saline by the ambulance paramedic. He is alert and complains of severe right lower abdominal and pelvic pain.

b ) List Four (4) initial management priorities in managing the patient's injuries.(4 marks)

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

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

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

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

**Question 19 ( continued )**

The eFAST examination is negative and his CXR is normal.  
**His Pelvic X-ray is shown in the Prop Booklet , page 15 .**

c ) List three (3) relevant findings in his Xray (3 marks).

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

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

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

d) List Four (4) important priorities in management of his shock (4 marks)

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

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

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

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

**Question 19 ( continued )**

e ) List two (2) physiological and three (3) pathological aims of resuscitation / massive transfusion, in this patient (5 marks):

A. Physiological:

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

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

B. Pathological:

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

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

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

f ) State the definition of Massive Transfusion for : (2 marks)

1) Adults:

\_\_\_\_\_

\_\_\_\_\_

2) Children:

\_\_\_\_\_

\_\_\_\_\_

**Question 20 ( 15 marks ) - 6 minutes**

A 12 day old girl presents to ED with poor feeding and increased work of breathing. On examination , she is drowsy and has widespread crepitations on auscultation of the chest with central capillary refill time of 3 seconds. Her vital signs :

T: 36.8 °C , SBP 70 mmHg , RR :80/min and O2 sats 93% RA,

**An ECG is performed and shown in PROPS Booklet , Page 16 .**

a ) What is the diagnosis ? ( 1 mark )

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b ) List four (4) ECG findings to support your diagnosis (4 marks)

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

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

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

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

**Question 20 ( continued)**

c ) State Four (4) initial management priorities for management of her tachydysrhythmia? (4 marks)

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

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

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

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

d ) List Three (3) further investigations for her with one (1) justification for each choice. (6 marks)

	Investigation	Justification
1		
2		
3		

**Question 21 ( 16 marks ) - 6 minutes**

A 14 month old boy is brought to your emergency department by her mother, as he has been refusing to weight bear for the last two (2) days after having his leg caught in a car seat strap whilst being removed from his car seat.

**X-ray is performed and shown in PROPS booklet ; page 17 .**

a ) List two (2) abnormalities in his Xray (2 marks)

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

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

b ) What is the name of this finding ? ( 1 mark)

\_\_\_\_\_

c) What is the likely mechanism of this injury (1 marks)

\_\_\_\_\_

d ) List Four (4) features on history that may support your diagnosis (4 marks)

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

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

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

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

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

**Question 21 ( continued )**

e ) List four (4) other concurrent injuries that you would look for in this child (4 marks)

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

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

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

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

f ) List four (4) groups whom you will involve in his ongoing care (4 marks)

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

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

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

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



**Question 22 ( 17 marks ) - 6 minutes**

An 18 month old boy was brought by concerned parents to your Emergency Department, with 3 day history of viral illness and 24 hour history of intermittent crying and abdominal pain. On arrival he looks mildly dehydrated but has otherwise normal examination and vital signs.

a ) List five (5) differential diagnoses for this child ( 5 marks)

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

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

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

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

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

**An Xray is taken-which is shown in PROPS booklet ; page 18 .**

b ) List three (3) abnormal findings in the Xray ( 3 marks )

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

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

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

**Question 22 ( continued )**

c ) What is your most likely diagnosis? ( 1mark)

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d ) List four (4) different radiological investigations to confirm your diagnosis and one rationale for its use (8 marks).

	Investigation	Rationale
1		
2		
3		
4		

**Question 23 (19 marks ) 6 minutes**

A 75 year old male is brought to your ED via ambulance, with Respiratory Distress, fever and confusion. On assessment the patient is confused and combative. His vital signs on arrival are:

Temp	38.7	°C
HR	120	bpm, irregular
BP	110/60	mm Hg
RR	32	/min
O2 sats	91%	on High flow Nasal prong O2

The patients arterial blood gas is reprinted below

PH	7.21		( 7.32 - 7.42 )
PCO2	64	mmHg	( 41 - 51 )
PO2	75	mmHg	
HCO3	21	mmol/L	( 20 - 40 )
BE	-6	mmol/L	( -3.0 - +3.0 )
Na	148	mmol/L	(135-145 )
Cl	105	mmol/L	( 95 - 107 )

a ) Assuming the patients K is normally 4.0, based on these acid base abnormalities Calculate the following Parameters showing your calculations. (2 marks)

Expected potassium (K)	Delta Ratio

b) What is the acid base abnormality on these results? Justify your answer ( 2 marks)

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**Question 23 (continued)**

c ) List Three (3) key differential diagnosis in this case; For each differential list Two (2) investigations you would perform, with a justification for each (15 marks)

	<b>DDx</b>	<b>Investigation</b>	<b>Justification</b>
<b>1</b>		a.	
		b.	
<b>2</b>		a.	
		b.	
<b>3</b>		a.	
		b.	

**Question 24 ( 16 marks ) - 6 minutes**

You department statistics show that 50% of patients who are eventually found to have a Primary Psychiatric disorder are being seen initially by an Emergency Department Doctor. One solution suggested is a direct Mental Health referral from triage for patients that appear to have a Mental Health problem to allow more appropriate initial review.

a ) List Four (4) criteria for a patient to be transferred directly to psychiatric services (4 marks)

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

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

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

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

b ) You institute a psychiatric triage reference card. List two (2) points that distinguish category one psychiatric patients from lower triage categories. (2 Marks)

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

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

**Question 24 ( continued )**

c ) The ED psychiatric assessment team ask that patients deemed at risk of suicide by medical staff have a brief risk assessment. List six (6) suicide risk factors that should be assessed? (6 marks)

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

d ) In order to identify patients with delirium in the initial nursing assessment you plan to introduce the Confusion Assessment Method. State the four (4) clinical features that are used in this Method to rapidly identify delirium. (4 marks)

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

**Question 25 ( 16 marks ) - 6 minutes**

A 34 year old man presents to your Emergency department with a lesion on his penis.

a ) List Four (4) collateral historical features to help differentiate your diagnosis ? ( 4 marks)

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

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

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

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

**Question 25 ( continued )**

b ) List Three (3) differential diagnosis with two (2) distinguishing features for each and provide one (1) treatment option for each condition? (12 marks)

	DDx	Distinguishing feature	Treatment
1			
2			
3			



**Question 26 ( 16 marks ) - 6 minutes**

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 /min Sat 92% RA GCS 14 (E4,M6,V4)

b ) 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 26 ( continued)**

d ) State five (5) steps to optimise his ICP? ( 5 marks )

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

c ) List five (5) general limitations in patient retrieval by helicopter (5 marks).

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

**Question 27 ( 26 marks ) - 9 minutes**

An 22 year old female presents late on a Friday evening with brisk PV loss and abdominal pain. She has very irregular periods and is uncertain of the date of her last period.

Vital signs are :

BP 80/50 mmHg HR 110 bpm Temp 37 °C GCS 15

a ) List four (4) differential diagnosis, including two (2) supportive features for each on History & examination (15 marks)

	DDX	Hx	Ex
<b>1</b>		1	1
		2	2
<b>2</b>		1	1
		2	2
<b>3</b>		1	1
		2	2

**Question 27 ( continued)**

b ) List &amp; Justify Three (3) Key Investigations (6 marks)

	<b>Investigation</b>	<b>Rationale/Justification</b>
1		
2		
3		

**Question 27 ( continued)**

Brisk PV loss continues and prior to any treatment, Vital signs are re-recorded as:  
BP 75/40 mmHg and HR 120 bpm

c ) State five ( 5 ) steps of escalating treatment (5 marks)

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_