



# Fellowship Practice Exam

**May 2018 - 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 (14 marks)**

You are managing a 58-year old man who presents with haematemesis. The junior registrar has been unable to gain IV access.

a) List five (5) methods to obtain large-bore venous access in this patient, with one advantage and one disadvantage for each (10 marks)

	<b>Method</b>	<b>Advantage</b>	<b>Disadvantage</b>
<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>5</b>			

**Question 19 (continued)**

The patient has three further large volume haematemases after large-bore intravenous access has been obtained.

b) State two (2) criteria for activation of a massive transfusion protocol. (2marks)

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

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

**Question 19 (continued)**

c) Complete the following table outlining values to aim for during massive transfusion. (7 marks)

	<b>Parameter</b>	<b>Justification</b>
<b>1</b>	temperature	
<b>2</b>	pH	
<b>3</b>	Lactate (mmol/L)	
<b>4</b>	Ionised calcium (mmol/L)	
<b>5</b>	Platelets	
<b>6</b>	INR	
<b>7</b>	Fibrinogen (g/L)	

**Question 20 (11 marks)**

An 11 year old boy is brought to the emergency department limping on his left leg for 2 days. He localises pain to his left hip. He is active with no trauma noted. He has been a previously well boy.

List three (3) important non-Hip differentials with one (1) investigation and one (1) justification for each. (6 marks)

	<b>Differential Diagnosis</b>	<b>Investigation</b>	<b>Justification</b>
<b>1</b>			
<b>2</b>			
<b>3</b>			

His X-ray is shown in **PROPS booklet; page 13.**

b) List two (2) abnormalities on this X-ray. (2 marks)

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

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

**Question 20 (continued)**

c) What is your management plan? State three (3) points. (3 marks)

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

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

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

**Question 21 (12 marks)**

A 6 year old boy presents to the emergency department with a painful neck swelling, increasing over the past three days. There is no history of trauma.

His photos are shown in **PROPS booklet; page 14.**

a) List three (3) most **LIKELY** differential diagnoses. (3 marks)

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

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

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

b) List four (4) local clinical examination findings that you would seek to assist with your diagnosis. (4 marks)

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

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

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

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

**Question 21 (continued)**

c) List two (2) local complications of this diagnosis? (2 marks)

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

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

d) If antibiotic therapy was indicated, list your choice of antibiotic: (1mark)

\_\_\_\_\_

e) State your rationale for this choice of antibiotic. Include two (2) points in your answer. (2 marks)

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

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



**Question 22 (14 marks)**

A 64 year old alcoholic man presents with shortness of breath. His vital signs are:

BP	105/70	mmHg
RR	32	bpm
Sat	91%	RA
Temp	39	°C
GCS	15	

His CXR is shown in **PROPS booklet; page 15**.

a) List three (3) abnormal findings on his CXR. (3 marks)

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

b) List three (3) organisms you would be concerned about in this patient. (3 marks)

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

**Question 22 (continued)**

c) SMART-COP and CURB-65 are two pneumonia scoring systems. Complete the table below listing two (2) pros and two (2) cons for each system. (8 marks)

<b>SMART-COP</b>	<b>CURB-65</b>
PRO-	PRO-
PRO-	PRO-
CON-	CON-
CON-	CON-

**Question 23 (12 marks)**

A 34 year old man presents to your tertiary Emergency Department with a 24 hour history of shortness of breath and a brief syncopal episode. He had an open reduction, internal fixation of a tibia fracture 3 weeks ago. He is otherwise a well man and takes no regular medications. His vital signs are:

BP	102/60	mmHg
PR	130	BPM
RR	38	BPM
SaO <sub>2</sub>	89%	RA
Temp	37.8	°C
GCS	15	

A) List three (3) features on ultrasound that would suggest massive pulmonary embolism (PE). (3 marks)

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

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

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

You diagnose a pulmonary embolism.

b) List three (3) indications for intravenous thrombolysis in PE. (3 marks)

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

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

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

**Question 23 (12 marks)**

c) List two (2) further potential treatment options for definitive care of his pulmonary embolism. (2 marks)

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

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

d) List four (4) factors which will influence the definitive care pathway chosen. (4 marks)

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

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

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

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

**Question 24 (12 marks)**

Fill out the following table regarding Contact Precautions, Droplet Precautions, and Airborne Precautions. Requirements you outline should be elements that are in **addition** to usual Standard Precautions. (12 marks)

	<b>Requirements:</b>	<b>Examples of Diseases:</b>
<b>Standard Precautions</b>	-Hand Hygiene. -PPE (eg Glove, Gown, mask) for procedures based on risk assessment. -Safe injection practices. -Safe handling of potentially contaminated equipment	Minimum standard for all patients
<b>Strict Contact Precautions</b>	1.  2.	1.  2.
<b>Droplet Precautions</b>	1.  2.	1.  2.
<b>Airborn Precautions</b>	1.  2.	1.  2.

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

**Question 25 (12 marks)**

A 19 year old female presents vomiting. She is unwilling to give any information. Multiple packets of medications were found in her room. These include paracetamol, ibuprofen, venlafaxine, fluvoxamine and ferrous sulphate.

Her ECG is shown in **PROPS booklet; page 16**.

a) List two (2) abnormalities on her ECG. (2 marks)

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

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

b) List four (4) specific abnormalities you would look for on examination of this patient. (4 marks)

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

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

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

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

**Question 25 (continued)**

c) List 3 specific medications you would consider in this patient. ( 3 marks)

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

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

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

The patient is moved to a resuscitation cubicle with full monitoring applied. IV access is gained.

d) State your next three (3) management priorities. (3 marks)

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

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

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



**Question 26 (8 marks)**

A 48 year old woman presents with 2 days of vomiting. She is confused and unable to give a clear history. Her current examination shows:

BP	100/82	mmHg
HR	144	bpm
Temp	36.5	C
RR	24	bpm
O2 Sat	98%	RA
GCS	13	(E4 M5 V4)

A venous blood gas is taken and is shown in **PROPS booklet; page 17**.

a) Provide two (2) calculations to assist with your interpretation of these investigations. (2 marks)

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

\_\_\_\_\_

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

\_\_\_\_\_

**Question 26 (continued)**

b) State your interpretation of these results. Give three (3) points in your answer. (3 marks)

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

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

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

c) State your three (3) initial treatments, including aims where appropriate. (3 marks)

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

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

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

**Question 27 (13 marks)**

A 52 year old man has been brought to your tertiary ED after falling 3 meters at a building site. His GCS at the scene was 9. He was intubated pre-hospital by paramedics and placed in full spinal precautions. On arrival to your emergency department primary survey reveals:

**A-** intubated and ventilated

**B-** RR 24 bpm, O2Sat 89% on 100% FiO2, ETCO2 45 mmHg

**C-** BP 80/60 mmHg, HR 120 bpm, No major external haemorrhage is evident

**D-** GCS 3 Pupils 2mm, equal and reactive

a) State four (4) initial management priorities. (4 marks)

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

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

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

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

**Question 27 (continued)**

The patient is stabilised and you proceed to CT.

His CT brain is shown in **PROPS booklet; page 18**.

b) List four (4) abnormal findings on his CT. (4 marks)

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

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

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

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

**Question 27 (continued)**

Shortly after the CT the patient's right pupil is dilated and fixed.

c) State five (5) next management steps in this situation. (5 marks)

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

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

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

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

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