

Candidate name: \_\_\_\_\_

Department of  
Emergency Medicine

Princess Alexandra Hospital

# FELLOWSHIP TRIAL EXAMINATION

## 2016.1

### WRITTEN EXAMINATION

### SHORT ANSWER QUESTIONS

EXAMINATION TIME: 3 HOURS

#### DIRECTIONS TO CANDIDATES

1. The exam is divided in to **three question booklets** and **one prop booklet**
  - Each question booklet is of equal value
2. Each mark is of equal weight
3. Write your name on the front page of each question paper
4. Write your initials on each subsequent page of the question paper
5. Answer each question in the space provided
6. Cross out any errors completely
7. Do not begin the exam until instructed to do so
8. No examination papers or materials to leave the room

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## **PAH 2016.1 trial SAQ paper**

### **PART 1**

**Questions 1 – 9**

**1 hour**

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**SAQ 1 (double question)**

A 25 year old woman has been brought to the ED after a high speed head-on motor vehicle accident.

Her initial chest x-ray is provided in the **PROPS BOOKLET**.

1. Give the **most important** pathology demonstrated on this x-ray, with 3 radiographic supporting features. (4 marks)

Most important pathology	Radiographic supporting features

2. What will be your **definitive treatment** of the diagnosis in Q1? (1 mark)

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3. What other **clinically significant** pathology is demonstrated in this X-ray? Include the radiographic support for this diagnosis. (2 marks)

Pathology	Radiographic supporting features

You have managed the above injuries and have intubated the patient to optimise ongoing assessment and management.

After a short period, the ventilator has begun to alarm due to high pressures.

4. List **six possible causes** of high ventilator pressures. (6 marks)

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
\_\_\_\_\_

(3) \_\_\_\_\_  
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(4) \_\_\_\_\_  
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(5) \_\_\_\_\_  
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(6) \_\_\_\_\_  
\_\_\_\_\_

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**SAQ 1 (continued)**

The patient has undergone CT scanning to delineate her injuries.

A slice from her head CT is provided in the **PROPS BOOKLET**.

5. List the abnormalities seen on the image. (6 marks)

(1) \_\_\_\_\_

\_\_\_\_\_

(2) \_\_\_\_\_

\_\_\_\_\_

(3) \_\_\_\_\_

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(4) \_\_\_\_\_

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(5) \_\_\_\_\_

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(6) \_\_\_\_\_

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CT scanning has revealed only chest and head injuries as demonstrated in the above images. The chest injury has been satisfactorily managed.

The patient has a dilated left pupil.

Her vital signs are:

GCS	3	sedated and paralysed
Pulse	100	/min
BP	90/60	mmHg
O2 sats	90%	FiO2 0.5

6. State your management steps, including drugs and doses and treatment end-points where appropriate. (8 marks)

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**SAQ 2**

A 30 year old man has presented to the ED with a painful, swollen left foot after jumping over a high fence. There are no other injuries.

His x-rays are provided in the **PROPS BOOKLET**.

1. List **five abnormalities** on the x-ray.

(5 marks)

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
\_\_\_\_\_

(3) \_\_\_\_\_  
\_\_\_\_\_

(4) \_\_\_\_\_  
\_\_\_\_\_

(5) \_\_\_\_\_  
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2. State your **key management steps** in the ED. Where appropriate, provide any doses of medications you will use. (5 marks)

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3. List two **major early complications** of this injury for which you will be monitoring the patient. For each, give a cardinal clinical finding. (4 marks)

Complication	Cardinal clinical finding



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**SAQ 3**

A 41 year old itinerant alcoholic has been brought to the ED with severe epigastric abdominal pain and vomiting.

His arterial blood gas, taken on room air, is provided in the **PROP BOOKLET**.

1. Comment on the following values on the arterial blood gas. Give likely causes for each abnormality. (8 marks)

Electrolyte	Comment	Likely Cause
Sodium		
Potassium		
Chloride		
Calcium		

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2. List other **major abnormalities** present, and for each list 2 differential diagnoses.

(9 Marks)

Abnormality	Differential Diagnoses

**SAQ 4**

A 12 year old boy has been brought to your ED by his parents with profuse blood loss from his mouth. His clothes are covered in blood.

He had undergone tonsillectomy at your hospital 7 days prior.

On arrival, his vital signs are:

GCS	15	
Pulse	160	/min
BP	75/40	mmHg
RR	30	/min
O <sub>2</sub> saturation	99%	room air

He looks pale and sweaty.

Your initial assessment is that he does not require immediate intubation.

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1. State your **initial management steps**, including details of drug doses and end-points.  
(5 marks)

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After a brief period of time in the ED, the patient has a large vomit consisting of congealed blood. He appears to aspirate a significant portion of vomitus.

You have decided to intubate the patient to protect his airway and to facilitate ongoing management.

2. Complete the table by listing **three difficulties** you anticipate in his intubation, and the **solutions you will employ** to manage each. (6 marks)

Difficulty	Solution

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**SAQ 5**

A 25 year old man has been brought to the ED with agitated behaviour. He was found by bystanders in a park screaming out "Help!" repeatedly.

1. List six features of your assessment that would suggest a **psychiatric cause** of his behavioural disturbance. (6 marks)

(1) \_\_\_\_\_

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(2) \_\_\_\_\_

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(3) \_\_\_\_\_

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(4) \_\_\_\_\_

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(5) \_\_\_\_\_

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(6) \_\_\_\_\_

\_\_\_\_\_

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After a short period of time, the states he is planning to leave. You are considering whether he is competent to make this decision.

2. List the components of competence assessment. (3 marks)

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You have decided that the patient is not competent to make competent decisions about his health care in this current state. He is now attempting to leave.

3. State, **in sequential order**, your management steps in attempting to keep this patient against his will. Include doses of drugs where appropriate. (6 marks)

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**SAQ 6**

A 70 year old man has presented to the ED after a syncopal episode.

His ECG is provided in the **PROPS BOOKLET**.

The patient's vital signs are:

GCS	12	E3 V4 M5
BP	70/40	mmHg
RR	20	/min
O2 sats	99%	room air

He is pale and sweaty.

1. Give your **diagnosis** and supportive ECG findings. (5 marks)

Diagnosis: \_\_\_\_\_

\_\_\_\_\_

Supportive Findings:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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2. State your treatment steps **in sequential order**. Include details of drug doses and end-points. (10 marks)

(1) \_\_\_\_\_

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(2) \_\_\_\_\_

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(3) \_\_\_\_\_

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**SAQ 7**

You are working in an ED in North Queensland.

A nine year old child has been brought to the ED by her mother after being bitten by a snake in her backyard.

The patient has normal vital signs on arrival.

1. List **four specific features** of your examination. (4 marks)

(1) \_\_\_\_\_

(2) \_\_\_\_\_

(3) \_\_\_\_\_

(4) \_\_\_\_\_

2. List the **two most relevant** laboratory investigations you will perform. (2 marks)

(1) \_\_\_\_\_

(2) \_\_\_\_\_

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Initial assessment demonstrates **no evidence of envenomation**.

3. List your **discharge criteria** for this girl. (5 marks)

- (1) \_\_\_\_\_  
\_\_\_\_\_
- (2) \_\_\_\_\_  
\_\_\_\_\_
- (3) \_\_\_\_\_  
\_\_\_\_\_
- (4) \_\_\_\_\_  
\_\_\_\_\_
- (5) \_\_\_\_\_  
\_\_\_\_\_

**SAQ 8**

Your tertiary department has received criticism about its management of ST elevation myocardial infarctions (STEMIs). In particular, there has been concern about time to percutaneous coronary intervention (PCI).

Your director has asked you to implement a protocol for patients with STEMIs.

1. List the **six steps** you will take in the development and implementation of this protocol. (6 marks)

(1) \_\_\_\_\_  
\_\_\_\_\_

(2) \_\_\_\_\_  
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(3) \_\_\_\_\_  
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(4) \_\_\_\_\_  
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(5) \_\_\_\_\_  
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(6) \_\_\_\_\_  
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2. List **six specific measures** that might reduce time to PCI for these patients.

(6 marks)

- (1) \_\_\_\_\_  
\_\_\_\_\_
- (2) \_\_\_\_\_  
\_\_\_\_\_
- (3) \_\_\_\_\_  
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- (4) \_\_\_\_\_  
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- (5) \_\_\_\_\_  
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- (6) \_\_\_\_\_  
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**SAQ 9**

A 7 day old boy has been brought to your ED with jaundice.

1. List **six causes of neonatal jaundice**. For each one, list a cardinal assessment (history, examination or investigation) finding. (12 marks)

Cause	Cardinal finding