Candidate name: _____

Department of
Emergency Medicine

Princess Alexandra Hospital

FELLOWSHIP TRIAL EXAMINATION

2017.1

WRITTEN EXAMINATION

SHORT ANSWER QUESTIONS

EXAMINATION TIME: 3 HOURS

DIRECTIONS TO CANDIDATES

1. The booklet is divided in to three parts
   - Each part is composed of 9 questions
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 2017.1 trial SAQ paper

PART 1

Questions 1 – 9

1 hour

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Q1

A 60 year old woman has presented with vertigo.

1. **List 4 causes of vertigo consistent with a peripheral aetiology. (4 marks)**

_____

_____

_____

_____

2. **List 4 causes of vertigo consistent with a central aetiology. (4 marks)**

_____

_____

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_____

3. **List 6 examination findings that would be consistent with a central cause for this patient's vertigo. (6 marks)**

_____

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Q2 (9 min)

A 78 year old man has been brought to the hospital by ambulance with severe shortness of breath.

He has had 2 days of fever and productive cough.

His chest x-ray is shown in the **PROPS BOOKLET**.

1. **List 6 radiological abnormalities. (6 marks)**

_____

_____

_____

_____

_____

_____

2. **List your 2 most likely provisional diagnoses from the available information. (2 marks)**

_____

_____

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His vital signs are:

GCS	13	E3 V4 M6
Temp	38.9	degrees
Pulse	120	/min
BP	88/45	mmHg
O2 sats	88%	10L O2 via Hudson mask

3. State your 3 most important initial treatment measures. (3 marks)

1) _____

_____

2) _____

_____

3) _____

_____

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Despite your initial management, the patient's condition does not improve.

4. **List 7 factors you would consider in determining the ceiling of care for this patient.**

(7 marks)

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Q3

A 48 year old 100kg diabetic man has been brought to the ED with severe perineal pain.

A clinical photo is provided in the **PROPS BOOKLET**.

1. **State the diagnosis.** **(1 mark)**

_____

2. **List 3 findings in the photo that support your diagnosis.** **(3 marks)**

_____

_____

_____

His vital signs are:

GCS	14	E4 V4 M6
Pulse	120	/min
BP	90/45	mmHg
O2 saturation	99%	room air
Temperature	39.5	degrees

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3. **State 5 components of your management.** **(5 marks)**

1) _____

_____

2) _____

_____

3) _____

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4) _____

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5) _____

_____

4. **List 3 causative organisms** **(3 marks)**

_____

_____

_____

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Q4

A 4 month old boy has been brought to the ED with difficulty breathing over the last 2 days.

Your examination reveals widespread chest crackles and wheezes.

Your provisional diagnosis is bronchiolitis.

1. **List 4 microbiological causes of this condition.** **(4 marks)**

_____

_____

_____

_____

2. **Give 2 differential diagnoses and for each provide a discriminatory examination finding.** **(4 marks)**

Differential diagnosis	**Examination finding**

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After a period of observation, you are confident in the diagnosis of bronchiolitis.

3. **List 5 criteria that would need to be satisfied for discharge home in the parents' care.**
(5 marks)

_____

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Q5 (9 min)

A 25 year old man has been brought to the ED after being stabbed once in the epigastrium. There are no other injuries.

He appears pale, sweaty and agitated.

His vital signs on arrival are:

GCS	14	E4 V4 M6
Pulse	125	/min
BP	75/40	mmHg
O2 sats	94%	15L O2 via non-rebreather mask

1. **List your 2 most important radiological investigations. For each provide 2 significant positive or negative findings. (6 marks)**

Investigation	Finding

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2. **List 4 principles of your fluid resuscitation strategy.** **(4 marks)**

_____

_____

_____

_____

3. **List 3 indications for urgent thoracotomy in the operating theatre.** **(3 marks)**

_____

_____

_____

4. **List 3 indications for intubating this patient in the ED.** **(3 marks)**

_____

_____

_____

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The patient required intubation in the ED.

Shortly after intubation, the ventilator has begun to alarm due to high peak airway pressures.

5. **List 6 possible causes of the high peak airway pressures.** **(6 marks)**

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Q6

A 45 year old woman has presented with an intensely painful right eye of 2 hours duration. There is no history of trauma.

She has no known medical history.

A clinical photo is provided in the **PROPS BOOKLET**.

1. **List 3 abnormalities in the clinical photo.** **(3 marks)**

_____

_____

_____

2. **State your diagnosis.** **(1 mark)**

_____

3. **List 3 methods of measuring intra-ocular pressure.** **(3 marks)**

_____

_____

_____

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4. **What is the upper limit of the normal range for intra-ocular pressure? (1 mark)**

_____

5. **List 2 treatments specific to this condition you may start in the ED. (2 marks)**

_____

_____

6. **List 2 supportive treatment measures. (2 marks)**

_____

_____

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Q7

A 64 year old woman has presented with 3 hours of chest pain.

She has a history of type 2 diabetes mellitus and hypertension.

Her ECG is reproduced in the **PROPS BOOKLET**.

1. **List 4 key findings on her ECG.** **(4 marks)**

_____

_____

_____

_____

2. **Give your interpretation of this ECG and its clinical relevance.** **(2 marks)**

_____

_____

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Upon your assessment the patient looks pale and sweaty. She has full field crackles on lung auscultation.

Her vital signs are:

GCS	13	E3 V4 M6
Pulse	70	/min
BP	75/40	mmHg
O2 saturation	88%	15L O2 via non-rebreather mask

You have decided that the patient needs intubation as part of her ongoing management.

3. List 5 modifications to a standard RSI that you would employ in this patient. (5 marks)

1) _____

_____

2) _____

_____

3) _____

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4) _____

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5) _____

_____

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Q8

A 4 year old boy has been brought to the ED after falling off a couch at home. He has a painful right elbow.

His elbow x-ray is provided in the **PROPS BOOKLET**.

1. **List 3 abnormalities in the x-ray.** **(3 marks)**

_____

_____

_____

2. **Classify the radiological injury.** **(1 mark)**

_____

3. **List the secondary ossification centres of the elbow in the appropriate chronological order of their appearance.** **(6 marks)**

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

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4. **List the details of 3 steps in your management of this patient. (3 marks)**

1) _____

_____

2) _____

_____

3) _____

_____

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Q9

You are the director of your Emergency Department.

You have been asked to meet with the hospital's Director of Medical Services to discuss the poor performance of the hospital in meeting time-based departure targets for patient departure from the ED.

You have been given the following information regarding the performance of the ED over the last month:

	Time-based departure compliance (%)
Admitted patients (n=1000)	15%
Discharged patients (n=3000)	80%
All patients (n=4000)	64%

The target KPI for time-based departure compliance from the ED is 75%.

1. **List 6 potential causes for the identified problem/s.** **(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 6 potential solutions for any of the identified problem/s. (6 marks)

1) _____

_____

2) _____

_____

3) _____

_____

4) _____

_____

5) _____

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6) _____

_____

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