

The Prince Charles Hospital
The Royal Brisbane & Women Hospital
Redcliffe Hospital
Caboolture Hospital

Facility/hospital/clinical service name

Metro North Hospitals ACEM Fellowship Trial Examination

2016.2

Short Answer Questions

SAQ Paper

Questions Only

This paper is property of Metro-north Emergency Departments. It should not be distributed or published without previous permission of the DEMENT team please

Booklet one

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

ACEM Fellowship Trial Examination

2016.2

Short Answer Questions

SAQ Paper

Booklet one

Examination time: 180 Minutes

Direction to Candidates:

- 1- All questions must be attempted
- 2- Answer each question in the space provided
- 3- Enter your name for each question
- 4- This paper has been divided into 3 parts, each part is to be completed in 60 minutes

Booklet one:	SAQ 1-9
Booklet two:	SAQ 10-18
Booklet three:	SAQ 19-27
Props Booklet:	All props

The 1st and last SAQs of each booklet are long questions:

This paper is property of The Prince Charles, The Royal Brisbane & Women, Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

SAQ 1 Long Question (31 marks)

Candidate name:

You are the ED Consultant on call at a regional hospital with an obstetric service on site. You are told that there is ambulance arriving in 15 minutes with a 30 year old woman who is 38 weeks pregnant, with CPR in progress. No other information is available.

Questions:

1. List six (6) steps in your preparation for this patient's arrival. (6 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

2. What are the key steps in the ongoing management of this patient in the ED, list five (5)? (5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

3. What are the indications for a resuscitative hysterotomy in the ED? (3 marks)

- 1-----
- 2-----
- 3-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

4. Briefly describe how a resuscitative hysterotomy is performed. (7 marks)

1-----
2-----
3-----
4-----
5-----
6-----
7-----

5. Outline your approach to the resuscitation of the neonate with respect to each of the following areas as listed in the following table.

(10 marks)

Airway	
Breathing	
Circulation	
Drugs	
Fluids	

2 marks for each box.

SAQ 2 (12 Marks)

Candidate name:

A 21 year old aboriginal lady presents with a 24 hour history of a sore throat and difficulty swallowing. She has a muffled voice and appears anxious.

Her observations are:

HR 100 bpm
BP 110/65
RR 28 bpm,
Sats 98% RA
Temp 39 Deg C.

A lateral soft tissue neck X-ray is performed which is shown in the props booklet.

Questions:

1- List two (2) radiological abnormalities on this X-ray and one negative finding?

(3 marks)

- 1-----
- 2-----
- 3-----

2- List four (4) likely organisms that cause this condition in this patient.

(4 marks)

- 1-----
- 2-----
- 3-----
- 4-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

3- List five (5) immediate management priorities in the ED?

(5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 3: (13 Marks)

Candidate name:

You join an outer urban Emergency Department as a new consultant. The department occasionally provides road retrieval and inter-hospital transfer services in support of the ambulance service, using a nurse and doctor from the department.

The Department Director asks you to formalise the arrangements and make recommendations for the safe provision of these retrievals.

Questions:

- 1. What categories of PPE should be provided to staff, list two (2)? (2 Marks)**

1-----
2-----

- 2. What monitoring and alarms are required, List four(4)? (4 Marks)**

1-----
2-----
3-----
4-----

- 3. What non-clinical equipment is needed, List four (4)? (4 Marks)**

1-----
2-----
3-----
4-----

4. What clinical governance review processes are required? (3 Marks)

1-----
2-----
3-----

SAQ 4: (10 Marks)

Candidate name:

A 41 year old male returns from a business trip and a few days later develops a painful left knee. He is finding it very difficult to walk due to pain.

This is his first episode of joint problems. He is systemically well, there is no history of trauma and no other symptoms.

He is afebrile, with normal vital signs.

A clinical photo of his knee is included in Props booklet:

1. Describe the photo: (1 Mark)

2. List three (3) differential diagnosis for the above presentation? (3 Marks)

1-----

2-----

3-----

3. Under an aseptic approach, an USS guided joint aspirate is taken. Complete the following table with the expected pathology findings: (4 Marks)

Analysis of synovial fluid

Diagnosis / fluid type	Findings		
	Macroscopic appearance	WCC ($10^6/L$)	% PMN
normal			
non-inflammatory			
inflammatory			
septic			

4. The synovial fluid result suggests septic arthritis. What antibiotics do you give while awaiting culture results? (2 Mark)

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DENT teams.

SAQ 5: (20 Marks)

Candidate name:

A 28 year old male has just been intubated in your ED for severe asthma. One of the RN's approaches you after you place the patient on the ventilator, and says "Can I adjust the alarm settings, as the high airway pressure alarm keeps on going off?"

- 1. Explain your initial approach to this scenario, and what your initial steps should be to diagnose this problem: (4 marks)**

1-----

2-----

3-----

4-----

- 2. Can you list up to 3 potential equipment problems and 3 potential patient problems that may have resulted in this alarm, and outline the initial steps to manage those problems? (12 marks)**

<u>EQUIPMENT PROBLEM</u>	<u>MANAGEMENT</u>
<u>PATIENT PROBLEM</u>	<u>MANAGEMENT</u>

3. Outline the principles behind ventilating a person with severe asthma:

(4 marks)

1-----

2-----

3-----

4-----

SAQ 6: (17 Marks)

Candidate name:

A 59 year old male presents to your ED with syncope. His ECG shows a broad complex tachycardia.

Questions:

1. List four (4) different causes of a broad complex tachycardia (4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

2. List four (4) clinical features that increase the likelihood of VT (4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

3. List six (6) ECG features that increase the likelihood of VT (6 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

4. List three (3) medications used to treat stable VT (3 Marks)

- 1-----
- 2-----
- 3-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

SAQ 7: (10 Marks)

Candidate name:

You are a consultant in a tertiary ED, when you receive a call from the duty radiologist informing you of a missed un-displaced C1 fracture that was seen on a CT Head scan undertaken 2 days ago.

You review the patient chart and see that the patient presented post-seizure in the setting of alcohol intoxication and a minor head injury. He was discharged home after the scan was initially reported as normal.

1. List three (3) steps to approach this situation? (3 marks)

- 1-----
- 2-----
- 3-----

2. You contact the patient, and advise him of the result. He informs you he lives 100km from the nearest town with a CT scanner.

What are the three (3) main considerations for this patient? (3 marks)

- 1-----
- 2-----
- 3-----

3. The patient is reluctant to undergo further imaging as he is the local school bus driver and does not want to leave the bus route uncovered.

What two (2) significant medico-legal issues does this case raise? (4 marks)

- 1-----
-
- 2-----
-

SAQ 8: (22 Marks)

Candidate name:

A 90 year old woman is sent into your Emergency Department by a community nurse from her home where she lives with her son. She has been complaining of chest pain for the last few days. She has multiple medical conditions, including severe dementia with cognitive and mobility issues, hypertension, osteoporosis, ischaemic heart disease and paroxysmal atrial fibrillation.

Her medications include an ACE inhibitor, aspirin, warfarin, and a statin.

Her vitals are:

HR 90, irregular
BP 110/60
SpO2 94% on RA
RR 24
Temp 37.5
GCS 14/15 (confused)

Her CXR is provided in the props booklet:

Questions:

- 1. List two (2) abnormalities on the CXR. (2 marks)**

1-----

2-----

- 2. List five (5) differential diagnoses, with justifications based on the information above.**

(10 marks)

Diagnosis	Justification

3. As you conduct a thorough examination of the patient, you discover some pressure areas on her back and buttocks.

List six risk factors for elder abuse.

(6 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

4. State four management priorities now.

(4 marks)

- 1-----
- 2-----
- 3-----
- 4-----
-
-

SAQ 9: Long Questions (25 marks)

Candidate name:

A 4 month old male infant is brought to the ED with 2 days history of progressive irritability and fever.

His vital signs are:

HR 180
RR 38
Sat 96%
Temp 38.7

His photographs are included in the props booklet:

Questions:

1. Describe the key features of the above photographs:

(5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

2. What is the most likely diagnosis, including the likely pathological process?

(2 marks)

- 1-----
- 2-----

3. List five (5) other possible causes for the above presentation:

(5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

4. List three (3) possible complications from the above condition:
(3 marks)

- 1-----
- 2-----
- 3-----

5. In point form, List your management steps, including any drugs, doses and end points.
(10 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----
- 7-----
- 8-----
-
-

Booklet two

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

ACEM Fellowship Trial Examination

2016.2

Short Answer Questions

SAQ Paper

Booklet two

Examination time: 180 Minutes

Direction to Candidates:

- 1- All questions must be attempted
- 2- Answer each question in the space provided
- 3- Enter your name for each question
- 4- This paper has been divided into 3 parts, each part is to be completed in 60 minutes

Booklet one: SAQ 1-9
Booklet two: SAQ 10-18
Booklet three: SAQ 19-27
Props Booklet: All props

The 1st and last SAQs of each booklet are long questions:

SAQ 10: Long Questions (35 Marks)

Candidate name:

You are the Emergency Consultant on call overnight. You receive a phone-call from your ED registrar, stating that they have a 2 year-old boy with severe croup who has just been brought in by their parents. Your registrar is concerned that she may have to intubate the boy. Anaesthetics are not on site overnight.

1. List six (6) possible causes for stridor in paediatric population (other than croup): (6 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

2. State five (5) indications for intubation in this scenario. (5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

3. As you make your way hurriedly into the department, you advise the registrar to prepare for rapid sequence induction and intubation.

Please complete the following information. Please provide doses and sizes for any drug or equipment used. (Total 13 marks)

Preparation of patient: (4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

Equipment (7 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----
- 7-----
-

RSI Drugs (2 marks)

- 1-----
- 2-----

4. The patient is successfully intubated in your ED. As you prepare the patient for transfer to the Paediatric ICU, the ventilator starts alarming that the airway pressures are high.

List six (6) causes of high airway pressures in this patient. (6 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

5. List five (5) anatomical airway difference in paediatric population in comparison with adult airway:

(5 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 11 (13 Marks)

Candidate name:

A 36 year old female with a history of menorrhagia is referred to the Emergency Department by her General Practitioner.

She had been complaining of breathlessness on minimal exertion and dizziness and was referred for blood tests.

She is haemodynamically stable at rest on arrival.

Her Full Blood Count reveals:

Haemoglobin	55g/L
White Cell Count	$6.2 \times 10^9/L$
Platelets	$230 \times 10^9/L$
Haematocrit	17%
MCV	74 fL

1. What is the diagnosis and give supporting evidence. (2 Marks)

Diagnosis:-----
-

Evidence:-----

2. She is assessed by a registrar and the decision is taken to admit her for a blood transfusion. Consent is obtained and 3 units of cross matched blood requested.

The transfusion is commenced in the Emergency Department. The first unit is charted to be given over 1 hour.

Soon after the transfusion is commenced she complains of pain at the site of her IVC, back pain and dyspnoea. She goes on to rapidly develop tachycardia, hypotension and fever. On examination she has an audible wheeze and widespread rales. Her GCS is 14.

What is the most likely diagnosis and list 4 complications which may occur? (5 Marks)

Diagnosis: -----

Complications:

1-----

2-----

3-----

4-----

3. List 2 immediate (1st hour), 2 medium term (hours to days) and 2 long term priorities in dealing with this situation? (6 Marks)

Immediate:-----

Medium term:-----

Long term:-----

SAQ 12: (20 Marks)

Candidate name:

A 56 years old female is brought in to your ED post generalized tonic clonic seizure. On your assessment, you noted there is right sided weakness and history reveals frequent falls and headache in recent months.

She has no significant past medical history and as part of the ED assessment, you have performed a CT brain, which is included in the Props booklet.

Currently her vital signs are as follows:

Temp 37.5C
HR 65
BP 135 / 85
RR 15
O2 Sats 97%

Questions:

1. Please name four (4) pertinent findings on this CT. (4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

2. Please provide six (6) differential diagnoses in order of priority. (6 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

**3. List five (5) management priorities in the Emergency Department
(5 Marks)**

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

**4. Please provide your approach in breaking bad news to this particular
patient. (5 Marks)**

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 13 (15 Marks)

Candidate name:

You are the duty consultant in a busy tertiary ED. You are looking after a 70 year old male patient who arrived in your ED after an out of hospital cardiac arrest.

He received no bystander CPR for 10 minutes and initial rhythm with ambulance after 10 minutes was VF. Return of spontaneous circulation (ROSC) was obtained after 3 cycles of CPR with defibrillation. He has been intubated at the scene & tube position confirmed with waveform capnography.

The patient has no known comorbidities except for being a smoker.

Vitals signs are as follows:

Temp 35C
HR 100/min (Sinus rhythm)
BP 70/50
O2 sats 90% on 15L/min BVM via ETT
GCS 3/15 (no sedation or paralysis)

ECG shows normal sinus rhythm and no signs of ischaemia.

The ICU Registrar was in attendance in ED on arrival of this patient. He has advised you not to start inotropes and that he will not admit the patient to ICU due to his poor prognosis. He states he is going to consent the family for organ donation when they arrive in the ED.

Questions:

- 1. List 5 patient factors that make this an inappropriate response by the ICU Registrar. (5 marks)**

1-----
2-----
3-----
4-----
5-----

- 2. Outline your approach to the ongoing medical management of this patient. (5 marks)**

1-----
2-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

3-----

4-----

5-----

3. Outline your approach to dealing with the ICU Registrar. (5 marks)

1-----

2-----

3-----

4-----

5-----

SAQ 14 (22 Marks)

Candidate name:

A 5 year old girl presents with cough, lethargy and fevers with SOB. She has been unwell for 2-3 days with increasing symptoms. She has been previously well and is immunised with no recent travel.

Vital signs are:

HR 120
BP 110/70
Sats 93% RA
Temp 38.9

She has increased WOB and crackles, so an X-ray is performed and provided in the props booklet:

Questions:

1. List two (2) abnormalities in the chest x-ray

(2 marks)

1-----

2-----

2. Give four (4) possible aetiologies and name one radiological feature that may support each of these aetiologies:

(8 Marks)

Aetiology	Radiological feature

3. She worsens and remains hypoxic 91% despite 15L with a re-breather mask. What are the options for escalation of respiratory support and name two (2) advantages and two (2) disadvantages of each. (12 marks)

Resp Support	Advantages	Disadvantages

SAQ 15 (10 Marks)

Candidate name:

A 56 year old male presents with severe central crushing chest pain radiating to his right arm, profuse sweating and vomiting. Prior to the ambulance arrival he had a brief episode of loss of consciousness and awoke to find himself on the floor with ongoing central chest pain. He has a background of Hypertension and Diabetes. He is an active smoker.

You work in a tertiary level Emergency Department with 24hr access to interventional cardiology services.

On arrival in ED his Obs are as follows:

BP 80/50 mmHg
HR 130 Beats/min
SaO2 91% on 15L
RR 30 /minute
Temp 37 Deg C

On examination, He looks unwell, grey, sweaty and dyspnoeic. Chest exam reveals bilateral bi-basal crackles. Heart sounds are normal with no murmurs.

His ECG is included in the Props booklet:

Questions:

1. List four (4) abnormalities in the ECG: (4 Marks)

1-----
2-----
3-----
4-----

2. What is the significance of the ECG changes in this case? (2 Marks)

1-----
2-----

3. List four (4) drugs (with doses) needed within the first hour of arrival to ED (4 Marks)

1-----
2-----
3-----
4-----

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

SAQ 16: (14 Marks)

Candidate Name:

A 45 year old male is involved in a high speed MVA.
You are pre-notified from the scene of his impending arrival to your Emergency Department.

His vitals signs are:

GCS 6/15
HR 140
BP 90/60
Sats 94% Non Rebreathing Mask
RR 25

Questions:

- 1. You assemble a trauma team and allocate roles to manage this patient. What are the immediate priorities on his arrival, list five (5)?**

(5 Marks)

1-----
2-----
3-----
4-----
5-----

- 2. You perform a pelvic X-ray as part of your initial trauma workup and assessment which is included in the props booklet**

List 2 radiological abnormalities and comment on the clinical interpretation of the above presentation: **(4 Marks)**

1-----
2-----

Interpretation: -----

3. List five (5) management priorities specific to the patient's pelvic injury:

(5 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 17: (13 Marks)

Candidate name:

A 21 year old male presents to a tertiary Emergency Department after suffering an injury to his right eye at work while hammering metal.

His eye photo is included in the props booklet:

Questions:

1. List three (3) abnormalities on the image (3 marks)

1-----

2-----

3-----

2. List two (2) relevant negative findings (2 mark)

1-----

2-----

3. What is the diagnosis (1 mark)

4. What further investigation(s) would you consider and what is your justification: (2 marks)

**5. List five (5) management steps with route and doses where appropriate
(5 marks)**

1-----

2-----

3-----

4-----

5-----

SAQ 18: Long Question (30 marks)

Candidate name:

You are working in the retrieval service when you receive a call for advice from a junior medical officer who is working in a small rural hospital 300km from the tertiary centre. They have a 34 year old male patient who has sustained burns to their chest and arms whilst lighting a fire on their farm.

- 1. List two (2) different methods that could be used to estimate the TBSA% of this patient's burns.**

(2 Marks)

1-----

2-----

- 2. List five (5) key features of this patient's assessment would make you concerned for the presence of airway burns.**

(5 Marks)

1-----

2-----

3-----

4-----

5-----

- 3. List your advice to the junior doctor about whether IV fluids would be indicated for this patient?**

(3 Marks)

1-----

2-----

3-----

- 4. If fluids are required, outline your advice about how to calculate the initial fluid requirements for this patient.**

(4 Marks)

1-----

2-----

3-----

4-----

5. List six (6) criteria that would indicate that this patient requires referral to a burns centre for ongoing management. (6 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----

6. Complete the table by listing five (5) immediate and five (5) long term complications that may occur from this patient's burns. (10 marks)

Immediate Complications	Long term Complications

Booklet three

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

ACEM Fellowship Trial Examination

2016.2

Short Answer Questions

SAQ Paper

Booklet three

Examination time: 180 Minutes

Direction to Candidates:

- 1-All questions must be attempted
- 2-Answer each question in the space provided
- 3-Enter your name for each question
- 4- This paper has been divided into 3 parts, each part is to be completed in 60 minutes

Booklet one: SAQ 1-9
Booklet two: SAQ 10-18
Booklet three: SAQ 19-27
Props Booklet: All props

The 1st and last SAQs of each booklet are long questions:

SAQ 19 Long Question (33 marks)

Candidate name:

A 23 year-old woman is brought to ED with a 3 day history of persistent vomiting.

She has significant underlying psychiatric and medical conditions.

She weighs 38 kg.

Her vital signs are:

HR 60
BP 80/60
RR 28
Temp 35.9 C
Sats 96% on RA

Her initial VBG on arrival to Emergency Department is:

Na	117 mmol	(135-145)
K	2.1 mmol	(3.5-5.2)
Cl	43 mmol	(95-110)
Ca	0.87mmol	(2.1-2.6)
Mg	0.86mmol	(0.7-1.1)
Glucose	38.0 mmol	(3.0-8.0)
HCo3	19 mmol	(22-32)
Urea	20 mmol	(2.1-7.1)
Creatinine	0.34 mmol	(45-90)

pH 7.39
pO2 45
pCo2 29

1. **List 5 abnormalities in the above VBG, including any calculations, with a brief explanation of the significance of each. (5 Marks)**

1-----

2-----

3-----

4-----

5-----

6-----

2. Her ECG is reproduced and included in the props booklet.

List 4 ECG abnormalities and two likely causes for these changes.

(6 marks)

- 1-----
- 2-----
- 3-----
- 4-----

Causes:

- 1-----
- 2-----

3. List eight (8) important management steps for the above patient including any drugs required and endpoints of therapy.

(8 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----
- 7-----
- 8-----

4. List 2 potential ethical and legal pitfalls that could be anticipated in the management of this patient: (2 marks)

1-----

2-----

5. List 6 common physical symptoms that a patient with anorexia nervosa may present with to the ED. For each list one potential underlying cause. (12 marks)

Symptoms	Reasons

SAQ 20: (20 Marks)

Candidate name:

A 36 years old male electrician is brought into your ED post electrocution from exposure to a 11000 volt power line. He was thrown on scene against a metal panel 8 meters away and noted to have no signs of life on scene.

Bystander CPR and ambulance resuscitation managed to gain ROSC after a down time of approximately 20 minutes.

His initial cardiac rhythm on scene was ventricular fibrillation.

On arrival to your ED this patient is intubated and ventilated with the following vital signs:

Heart rate 84bpm
BP 145/90
Resp Rate 15 breath per min, hand ventilated
O2 Sats 98% on 15L via BVM

Questions:

- 1. Name factors that can influence the severity of an electrical injury and its significance. (8 Marks)**

Factor Influencing Injury Severity	Clinical Significance

2. Please name types of injuries that can be sustained in this patient and example of each type.

(8 Marks)

Injury Type	Example

3. Please give four (4) indications for the use of telemetry in a patient with an electrical injury?

(4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

SAQ 21: (14 marks)

Candidate name:

A 23 year old woman is brought in to your emergency department following a deliberate overdose of amitriptyline approximately 1 hour ago.

Her estimated weight is 60 kg. She was prescribed 25 mg nocte 10 days ago. She is uncertain how many she took but her box of 50 is now empty.

She denies any co-ingestion. She is presently voluntary and brought in by her parents.

Her vital signs are:

GCS 15/15
HR 110
BP 120/60
Temp 36.6
Sats 99% on RA
RR 16
BSL 6.6

1. What is your initial risk assessment? (3 marks)

2. Name and justify one (1) key investigation and two (2) other investigations you would perform? (6 marks)

Key Investigation	Reasoning

Other Investigations	Reasoning

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

3. 40 minutes after arriving in the emergency department, the patient has a generalised tonic-clonic seizure.

Her vital signs are now:

GCS 3/15

HR 120/min

BP 90/50

O2 sats 98% NRBM

**List your five (5) immediate management priorities, including endpoints of therapy.
(5 marks)**

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 22: (15 Marks)

Candidate name:

You are the consultant on call overnight, when your registrar calls you to tell you he would like you to attend. The patient is an 180 kg male who presents with Acute Respiratory Failure in the context of Bilateral Pneumonia.

The registrar states that this person needs intubation, and you agree when you hear the following observations:

HR 120
BP 90/
RR 45
SaO2 91% on 15L via NRBM

He has asked you to attend because he has limited anaesthetic experience, and is anticipating a difficult airway

Questions:

- 1. List up to seven (7) steps you would tell your registrar to do in preparation, to facilitate intubation when you arrive:**

(7 marks)

1-----
2-----
3-----
4-----
5-----
6-----
7-----

2. You were successful in intubation. Despite 100% O₂, you are still inadequately oxygenating the patient. The ETT has been confirmed in the correct place.

Please outline up to 4 possible causes for Hypoxia in this case and identify a treatment to deal with this:

(8 marks)

<u>CAUSE FOR HYPOXIA</u>	<u>MANAGEMENT</u>

SAQ 23 (20 Marks)

Candidate name:

An elderly female is referred to your Emergency Department by her LMO because of the new onset of AF:

Her Vital signs are:

GCS 15/15
BP 110/60
Sat 95% on RA
RR 18 per min

Her ECG is shown in Props booklet:

1. List eight (8) potential causes for this abnormality (8 Marks)

1-----
2-----
3-----
4-----
5-----
6-----
7-----
8-----

2. Your registrar asks you whether to aim for rhythm or rate control .

List 2 factors which would make you consider rhythm control in this lady and 2 factors which would make you consider rate control with a rationale for their inclusion

(4 Marks)

Rhythm Control

Factors
1
2

Rate Control

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

Factors
1
2

3. Your resident asks you whether she need to be antiocoagulated.

List 8 factors you would consider for the above decision:

(8 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----
- 7-----
- 8-----

SAQ 24: (16 Marks)

Candidate name:

A 29 year old lady presents to ED on a Friday night, with bizarre behaviour following a recent admission under the medical team with cellulites, she has a history of depression and self-harm. She is accompanied by her husband, who states that she has not slept since discharge. She is currently taking antibiotics and an SSRI. Her husband states that she started to hallucinate while she was an inpatient but didn't mention it to medical staff as she wanted to go home. You are concerned that she has an acute presentation of psychosis.

**1. What features of her mental state exam indicate psychosis, list four (4):
(4 Marks)**

- 1-----
- 2-----
- 3-----
- 4-----

2. Missed medical diagnoses in psychiatric patients are reported in up to 45% of patients. What are the main pitfalls in the "medical clearance process" List Four (4)

(4 Marks)

- 1-----
- 2-----
- 3-----
- 4-----

**3. She has remained calm and responsive to your assessment and investigations. She is referred to the mental health team for review and they decide she is not a danger to herself, so can be followed up in the community. What features of her presentation would lead to you challenge that decision. List three (3)
(3 Marks)**

- 1-----
- 2-----
- 3-----

4. She suddenly becomes more angry in the department while waiting for a mental health bed, her husband had left, she is pacing and threatening harm to herself. How do you manage this situation? List five (5) steps

(5 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 25: (13 marks)

Candidate name:

An 84 year old lady presents to your ED after a fall at home. She is unable to mobilize. Primary survey is unremarkable and her vitals are normal.

She is complaining of pain in her hip.

Her pelvic X-ray is included in the props booklet:

Question:

1. Describe the key findings on the X-ray.

(3 marks)

1-----
2-----
3-----

2. What is the most significant early complication of this injury, and how you would assess for it?

(2 marks)

3. There is no contraindication to procedural sedation for this patient, and you decide to perform the reduction in the ED.

Name 2 different methods of achieving reduction and briefly describe each technique.

(8 marks)

Method of Reduction	Description of Technique

(1 mark each for method of reduction, 3 marks each for accurate description)

SAQ 26 (21 Marks)

Candidate name:

A 35 year old female presents to your ED one week after the delivery of a healthy term baby. She describes fevers and rigors for the past 12 hours with a mild headache.

The infant is well and in the care of the father.

Her vital signs are:

Temp 39.5C
HR 120
BP 90/50
RR 18
O2 Sats 98% RA

Questions:

- 1. List eight (8) differential diagnoses for post-partum fevers. (8 marks)**

1-----
2-----
3-----
4-----
5-----
6-----
7-----
8-----

- 2. List four (4) key details of the recent delivery that you would seek in this patient & state the significance. (8 marks)**

Key Details of Delivery	Significance

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

3. Her vital signs further deteriorate whilst in the ED.

Temp 39C
HR 130
BP 75/45
RR 20
O2 sats 98% 2L/min NP
GCS 15/15

List five (5) key management priorities of this patient in the ED. (5 marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

SAQ 27 Long Questions (31 Marks)

Candidate name:

A 62 year old female is brought to your Emergency Department with central pleuritic chest pain and shortness of breath from the local cruise ship terminal.

Questions:

1. List five (5) potential differential diagnoses? (5 Marks)

1-----
2-----
3-----
4-----
5-----

2. During your assessment, she deteriorates clinically and becomes agitated, tachycardic, hypotensive and hypoxic.

Her vital signs are now:

**GCS 13/15 (agitated),
HR 130 Sinus Tachycardia
BP 90/60
Sats 89% RA
RR 28.**

For the table below, List five (5) immediate investigations and the rationale for each:

(10 Marks)

Investigations	Rational

This paper is property of The Prince Charles, The Royal Brisbane & Women ,Redcliffe and Caboolture Emergency Departments and should not be distributed or published without permission of the DEMENT teams.

3. You diagnose a pericardial effusion from your history/examination and investigations.

List eight (8) common causes of ANY pericardial collection for patients presenting to the emergency department?

(8 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----
- 6-----
- 7-----
- 8-----

4. List five (5) main ECHO features to support a clinical diagnosis of cardiac tamponade?

(5 Marks)

- 1-----
- 2-----
- 3-----
- 4-----
- 5-----

5. List three (3) ECG finding that support a clinical diagnosis of cardiac tamponade:

(3 Marks)

- 1-----
- 2-----
- 3-----

Good luck