



Fellowship Practice Exam

September 2019 - Book 1

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 (1 and 9), and 6 minutes for 2 page questions (2 - 8). 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 1 (13 marks)

You have been asked to review the department's resuscitation guidelines after a recent resuscitation was criticised by senior clinicians present. The focus of the review is to be on the cessation of resuscitation attempts.

- a) The Australian Resuscitation Council states that CPR is likely to be futile beyond twenty minutes when four criteria have been met. List the four (4) criteria. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 1 (continued)

b) State five (5) clinical circumstances where prolonged resuscitation attempts may be warranted. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

Question 1 (continued)

End-tidal CO₂ and cardiac ultrasound have been used as adjuncts in the decision to cease resuscitation and are to be included in your guideline review.

c) Complete the table below with appropriate clinical circumstances for use of End-tidal CO₂ and cardiac ultrasound and the findings/values upon which CPR might be ceased. (4 marks)

	Clinical Circumstance	Finding/Value
Cardiac Ultrasound		
End-tidal CO₂		

Question 2 (11 marks)

Your intern presents a case to you of a 45 year old woman she has seen. The patient has told the intern “I have a problem with my mitral valve”. You review the patient with your intern and make the diagnosis of severe mitral stenosis.

a) What is the most common cause of mitral stenosis for this patient? (1 mark)

b) List four (4) features on history that would lead you to this diagnosis in this patient. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 2 (continued)

c) List Six (6) features on physical examination that would lead you to this diagnosis in this patient. (6 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Question 3 (9 marks)

Your department has recently implemented the CURB- 65 scoring system for Community acquired pneumonia.

- a) State one (1) PRO and one (1) CON, for use of the CURB-65 scoring system (2 mark)

PRO _____

CON _____

- b) List four (4) components of the CURB-65 scoring system. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 3 (continued)

c) According to the Therapeutic Guidelines, and assuming no penicillin allergy, prescribe the appropriate antibiotic regime for CURB-65 score zero (0). (1 mark)

A 20 year old patient with a history of Cystic Fibrosis presents to your Emergency department with a 5 day history of increasing productive cough, fevers and dyspnoea. You diagnose a lower Respiratory tract infection.

d) Prescribe your choice of antibiotic for this patient and state one (1) justification for your choice. (2 marks)

Antibiotic : _____

Justification: _____

Question 4 (11 marks)

A 78 year old lady presents to your emergency department with lethargy and upper abdominal pain since this morning. She has a past medical history of hypertension and Type 2 diabetes.

On examination she appears distressed with pain. Her vital signs are:

HR	84	bpm
BP	92/56	mmHg
Temp	37.6	°C
RR	18	min

a) List five (5) important differential diagnoses you need to consider in this patient. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

Question 4 (continued)

b) Complete the following table listing three (3) important initial investigations in the first 20 minutes of this patients care. Give your justification for each. (6 marks)

	Investigation	Justification
1		
2		
3		

Question 5 (14 marks)

A 2 year old child presents to your Emergency Department with a right sided limp since waking this morning. The child has no significant past medical history. The mother states that other than a mild recent viral illness the child has been well and there is no history of trauma.

a) Other than transient synovitis and septic arthritis of the hip, list six (6) possible differential diagnoses for this child. (6 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Question 5 (continued)

b) List five (5) clinical features that would be suggestive of septic arthritis. (5 marks)

1. _____
2. _____
3. _____
4. _____
5. _____

The child improves in the department and is weight bearing with minimal discomfort. You decide to discharge the child home.

c) State three (3) pieces of advice you would give the parents on discharge. (3 marks)

1. _____
2. _____
3. _____

Question 6 (10 marks)

A 35 year old woman presents at 0800 hrs with sharp, left-sided sub-mammary chest pain that woke her from sleep at midnight. It has been present ever since. She has no shortness of breath. She has no significant medical or surgical history and no significant family history. She takes the combined oral contraceptive pill and has no allergies.

Vital signs on arrival are as follows:

HR	80	bpm
RR	16	bpm
BP	130/70	mmHg
Sat	98%	room air

- a) Other than Pulmonary Embolism, complete the table below listing three (3) likely differential diagnoses based on this history and state one important investigation of choice for each. (6 marks)

	DIAGNOSIS	INVESTIGATION OF CHOICE
1		
2		
3		

Question 6 (continued)

You decide that pulmonary embolism is your most likely differential diagnosis.

b) Regarding the use of the PERC rule in general, state two (2) pros and two (2) cons of it's use. (4 marks)

Pros 1. _____

2. _____

Cons 1. _____

2. _____

Question 7 (10 marks)

A 38 year old women presents to your emergency department with a headache. She is a G2P1 lady and is currently 33 weeks pregnant. Her vital signs are:

HR	88	bpm
BP	170/120	mmHg
Sat	99%	room air
Temp	36.6	°C

a) Other than pre-eclampsia, list the four (4) most important diagnoses you would consider for this patient. (4 marks)

1. _____

2. _____

3. _____

4. _____

The patient is diagnosed with pre-eclampsia.

b) List three (3) criteria for diagnosing pre-eclampsia

1. _____

2. _____

3. _____

Question 7 (continued)

c) Prescribe your antihypertensive of choice in this situation and list one (1) possible side effect to the fetus. (2 marks)

Medication:

Side effect:

d) The patient is witnessed to have a generalised seizure. Prescribe your drug of choice to terminate the seizure. (1 mark)

Question 8 (12 marks)

You are assessing a 60 year old man who's been reluctantly brought to ED. His housemate is concerned that the patient is not his usual self. He has been agitated and has not been sleeping well. The housemate states that the patient has been talking about hanging himself. On further questioning the patient uses regular cannabis but has no other medical history.

On examination, he appears withdrawn. He has a faint wheeze bilaterally. He refuses further examination. His vital signs are as follows:

HR	102	bpm
BP	112/85	mmHg
Sat	96%	room air
Temp	37.7	°C

- a) List five (5) factors that would lead you to suspect an organic cause for this presentation. (5 marks)

1. _____
2. _____
3. _____
4. _____
5. _____

Question 8 (continued)

b) List five (5) factors that would lead you to suspect a psychiatric cause for this presentation. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

The patient decides he wants to leave. He becomes agitated and is being restrained by security.

c) In order of escalation prescribe your first two (2) choices of chemical restraint. (2 marks).

1. _____

2. _____

Question 9 (16 marks)

You are the consultant in charge receiving morning handover from your registrar. There is a 30 year old woman in your resuscitation bay who was intubated overnight after presenting with an altered conscious state. Her initial arterial blood gas is shown in **PROPS BOOKLET ; page 3.**

- a) Showing your calculation, provide two (2) parameters you need to calculate with its significance to help you interpret these results. (4 marks).

Calculation1: _____

Significance: _____

Calculation2 : _____

Significance: _____

Question 9 (continued)

b) List four (4) most likely differential diagnoses for her presentation. (4 marks).

1. _____

2. _____

3. _____

4. _____

Question 9 (continued)

The patient is appropriately managed overnight and her condition improves. The registrar is hopeful she can be extubated after handover.

c) Complete the table below listing four (4) patient factors that are required to allow safe extubation of this patient and for each state how you would ensure adequacy of that factor. (8 marks)

	Patient factor (4 marks)	How you would ensure adequacy of each factor (4 marks)
1		
2		
3		
4		