



Fellowship Practice Exam

December 2015 - Booklet 3

**WRITTEN EXAMINATION
SHORT ANSWER QUESTIONS**

EXAMINATION TIME: 3 HOURS - 1 hour per booklet

Directions to Candidates

This booklet is two of three. It contains 8 questions. Allow 12 minutes for 4 page questions (19 and 26), and 6 minutes for 2 page questions (20 - 25). **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.

Candidate number _____

Question 19 (43 marks) 12 minutes

A 26 year old woman who is 32 weeks pregnant is brought to your tertiary hospital having been involved in a high speed motor vehicle accident. She has seatbelt marks across her chest and abdomen.

Her observations are as follows:

GCS	15	(E4, V5, M6)
HR	100	/min
BP	100/60	mmHg
RR	20	/min
Sats	98%	on 6L O2 via Hudson mask

i. State five (5) management priorities. (5 marks)

1

2

3

4

5

Question 19 continued

- ii. List three (3) imaging modalities you would consider for this patient. State three (3) pros and three (3) cons for each. (21 marks)

	Imaging modality (3 marks)	Pros (9 marks)	Cons (9 marks)
1			
2			
3			

Question 19 continued

- iii. Name five (5) physiological differences that occur in pregnancy. For each difference, state how they effect your assessment during trauma. (10 marks)

	Physiological different (5 marks)	Assessment implication in trauma (5 marks)
1		
2		
3		
4		
5		

Question 19 continued

Your patient develops PV bleeding and states that she has not felt the baby move since the accident.

iv. What is your most important differential diagnosis? (1 mark)

v. List three (3) investigations relevant to this diagnosis and state their utility in this setting. (6 marks)

	Investigation (3 marks)	Utility (3 marks)
1		
2		
3		

Question 20 (13 marks) 6 minutes

You have been tasked with redesigning your emergency departments model of care to improve flow within the department.

i. List four (4) stakeholders you would involve. (4 marks)

1 _____

2 _____

3 _____

4 _____

ii. State five (5) ways you could improve flow within your emergency department. (5 marks)

1 _____

2 _____

3 _____

4 _____

5 _____

Question 20 continued

iii. In general, list four (4) steps in instituting change. (4 marks)

1 _____

2 _____

3 _____

4 _____

Question 21 (15 marks) 6 minutes

A 75 year old man presents via ambulance from home with severe abdominal pain.

A single slice from an abdominal CT scan is shown in the props booklet on page 15.

i. State 2 important abnormalities on the CT scan (2 marks)

1

2

ii. What is your diagnosis? (1 mark)

He deteriorates on arrival back from CT. His observations are as follows:

GCS	15	(E4, V5, M6)
HR	120	/min
BP	70/40	mmHg
RR	22	/min
Sats	100%	on 6L O ₂ via Hudson mask

iii. What end points in his observations will you aim for? (3 marks)

Question 21 continued

iv. Prescribe your first bag of crystalloid in the chart below (2 marks)

Fluid	Additives (if applicable)	Rate ml/hr

v. What are four (4) pieces of information you need to rapidly acquire from taking a history from this patient? (4 marks)

1

2

3

4

vi. What are your three (3) immediate management priorities? (3 marks)

1

2

3

Question 22 (23 marks) 6 minutes

A 24 year old woman presents to your emergency department with one week of diarrhoea. She describes 10 bowel motions a day with mucous and small amounts of red blood mixed in with the stool. She is afebrile and her vital signs are normal.

i. List six (6) important features on clinical history to obtain. (6 marks)

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

ii. List six (6) important investigations to perform in the emergency department for this woman. Provide a justification for your choice. (12 marks)

	Investigation (6 marks)	Justification (6 marks)
1		
2		
3		
4		
5		
6		

Question 22 continued

iii. List five (5) factors that would lead you to recommend admission for a patient with inflammatory bowel disease. (5 marks)

1 _____

2 _____

3 _____

4 _____

5 _____

Question 23 (17 marks) 6 minutes

A 55 year old woman presents having been bitten on her right foot by a cat 5 days previously. Her local doctor has been treating her with IM ceftriaxone for the past 3 days with no improvement in her symptoms. She is systemically well.

A clinical photograph is shown on page 16 of the props booklet.

i. State four (4) relevant positive findings on the photograph supplied. (4 marks)

1 _____

2 _____

3 _____

4 _____

ii. List three (3) clinically significant possible complications in this patient. (3 marks)

1 _____

2 _____

3 _____

Question 23 continued

iii. Prescribe two (2) medications in the chart below. (8 marks)

Date	Medication (Print Generic Name)	Tick if Slow Release
Route	Dose Frequency	

Date	Medication (Print Generic Name)	Tick if Slow Release
Route	Dose Frequency	

iv. State two (2) rationale for your choice of antibiotic. (2 marks)

1 _____

2 _____

Question 24 (24 marks) 6 minutes

- i. A 2 year old girl presents with a bead up her right nostril. Complete the following table regarding ketamine dosing for procedural sedation. (8 marks)

Route of Administration	IM (4 marks)	IV (4 marks)
Advantage		
Clinical onset		
Effective sedation		
Average time to discharge		

- ii. List seven (7) contraindications for the use of ketamine. (7 marks)

1

2

3

4

5

6

7

Question 24 continued

iii. List five (5) steps in order for the treatment of laryngospasm in the setting of ketamine sedation. (5 marks)

1 _____

2 _____

3 _____

4 _____

5 _____

iv. State 2 rationale for fasting prior to ketamine sedation, and 2 rationale for proceeding without fasting. (4 marks)

1 _____

2 _____

1 _____

2 _____

Question 25 (11 marks) 6 minutes

A previously well 55 year old woman presents with a complaint of severe vomiting for 5 days. Her observations are as follows:

HR	110	/min
BP	100/60	mmHg
Temp	36.8	oC

A venous blood gas is performed and is shown below:

pH	7.23		(7.35 - 7.45)
pO ₂	40	mmHg	
pCO ₂	22	mmHg	(40 - 52)
HCO ₃	9	mmol/L	(24 - 32)
Na	140	mmol/L	(135 - 145)
K	3.4	mmol/L	(3.5 - 4.8)
Cl	77	mmol/L	(95 - 110)

i. What is the primary acid/base disturbance? (1 mark)

ii. Calculate the anion gap - show your calculation. (2 marks)

iii. Is there adequate compensation? - show your calculation. (2 marks)

Question 25 continued

iv. What is the delta ratio? - show your calculation. (2 marks)

v. What does this delta ratio result tell us in this clinical setting? (2 marks)

vi. Provide a unifying explanation for these gas results. (2 marks)

Question 26 (35 marks) 12 minutes

A 4 month old child presents via ambulance after a generalised convulsion which lasted approximately 2 minutes then stopped spontaneously. He has been unwell for the last 24 hours with coryza and a fever and had paracetamol half an hour ago. He is a previously well term baby immunised to date.

The child appears listless and mottled with a capillary refill time of 3 seconds.

His observations are as follows:

Temp	37.8	°C Rectal
HR	160	/min
BP	80/40	mmHg
Sats	98%	on room air

i. List five (5) differential diagnoses (5 marks)

1

2

3

4

5

ii. State four (4) management priorities (4 marks)

1

2

3

4

Question 26 continued

- iii. The child is not currently seizing. Prescribe two (2) medications in the chart below. (4 marks)

Date	Medication (Print Generic Name)	Tick if Slow Release
Route	Dose Frequency	

Date	Medication (Print Generic Name)	Tick if Slow Release
Route	Dose Frequency	

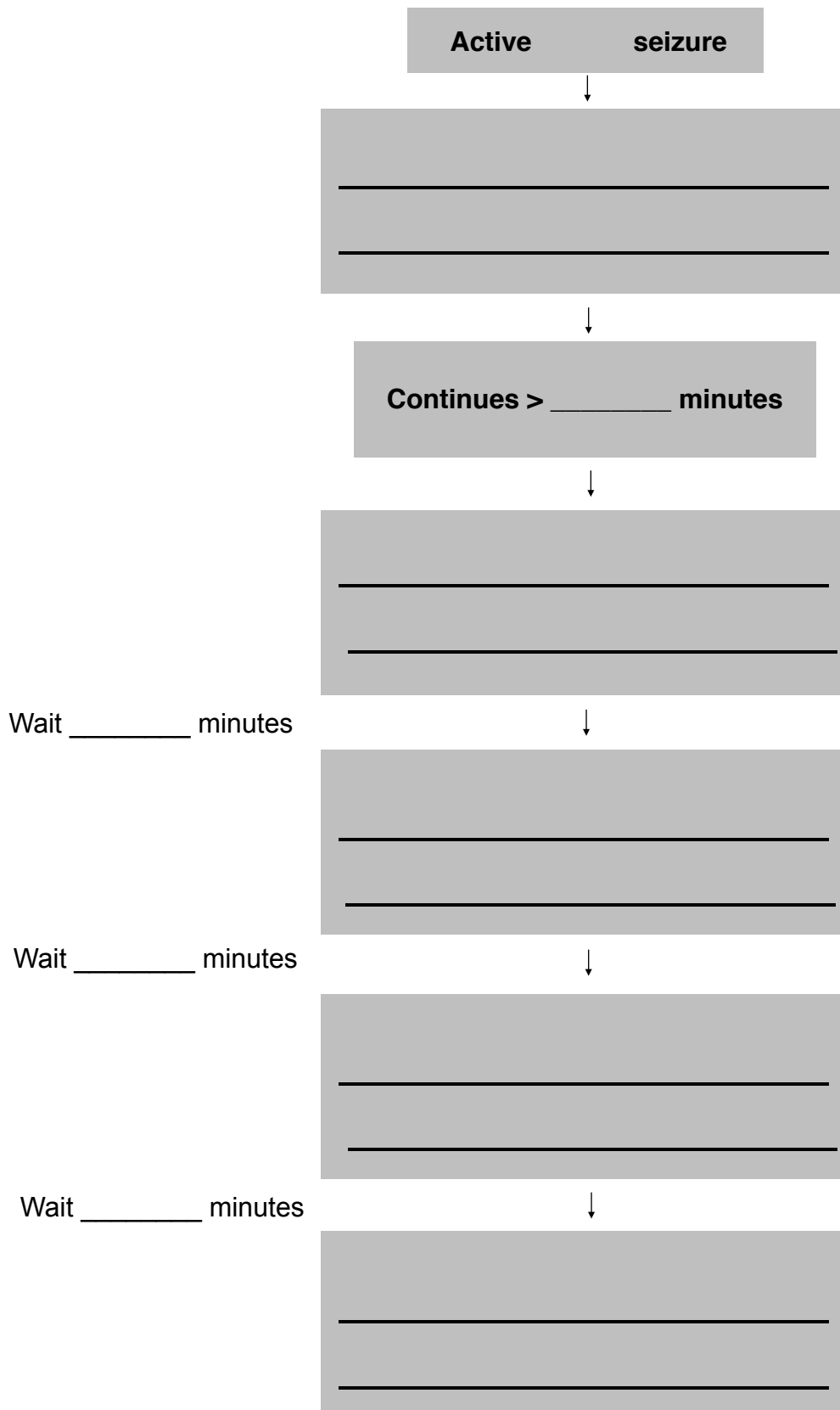
- iv. State two (2) rationale for your choice of drug. (2 marks)

1

2

Question 26 continued

- v. The child begins to seize again while you are examining them. He has IV access. Complete the following algorithm. (14 marks)



Question 26 continued

- vi. The child has stopped seizing. List your next two (2) investigations. State one pro and one con for each. (6 marks)

	Investigation	Pro	Con
1			
2			