



Fellowship Practice Exam

November 2016 - Book 2

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 (10 and 18), and 6 minutes for 2 page questions (11 - 17). 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 10 (21 marks) 9 minutes

a) State the two (2) features of Inferior vena cava measurement by Ultrasound that supports a reduced central venous pressure measurement. (2 marks)

1. _____

2. _____

b) State four (4) limitations to the use of inferior vena cava measurement by Ultrasound, in the Emergency Department setting, for the assessment of intravascular volume. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 10 (continued)

c) Other than Inferior vena cava measurement, list four (4) uses for Bedside ECHO in the setting of a cardiac arrest. (4 marks)

1. _____

2. _____

3. _____

4. _____

d) State three (3) arguments for the use of crystalloid in fluid resuscitation for shock. (3 marks)

1. _____

2. _____

3. _____

Question 10 (continued)

e) State three (3) arguments for the use of colloid in fluid resuscitation for shock. (3 marks)

1. _____

2. _____

3. _____

f) State five (5) current recommendations for fluid therapy in severe sepsis. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

Question 11 (12 marks) 6 minutes

A 61 year old man presents post VF arrest. He received 1 DCR prehospital. No medications have been given prehospital.

His observations on arrival:

BP	130/60	mmHg
RR	24	/min
Temp	36.5	°C
GCS	15	

An ECG is taken and shown in PROPS booklet ; page 11 .

a) State three (3) abnormal findings shown in this ECG. (3 marks)

1. _____
2. _____
3. _____

Question 11 (continued)

b) List four (4) possible explanations for these ECG findings. (4 marks)

1. _____

2. _____

3. _____

4. _____

c) State your preferred definitive treatment for this patient. (2 marks)

d) Provide three (3) statements of justification for this choice. (3 marks)

1. _____

2. _____

3. _____

Question 12 (15 marks) 6 minutes

A 26 year old male presented to your emergency department complaining of right upper quadrant pain and vomiting. He has recently been suffering with a sore throat and coryzal symptoms and admits to taking regular paracetamol tablets in addition to frequently taking a paracetamol cold and flu drink preparation for the past four days.

a) List three (3) risk factors for hepatic injury from supra-therapeutic paracetamol ingestion (3 marks)

1. _____

2. _____

3. _____

b) What is the paracetamol dose that may be associated with hepatic injury in the following situations? (3 marks)

	Paracetamol dose associated with hepatic injury
Adult with risk factors	
Adult with no risk factors and supra-therapeutic ingestion over < 24 hour period	
Adult with no risk factors and supra-therapeutic ingestion over > 24 hours	

Question 12 (continued)

c) He is judged to be at risk and requires biochemical risk assessment.State one (1) relevant test results that require either no treatment or further treatment (2 marks)

No treatment required	
N-acetylcysteine required	

d) He is assessed to require an N-acetylcysteine infusion. List five (5) important pieces of information that you would tell patient regarding the N-acetylcysteine infusion and ongoing management of his supra-therapeutic ingestion. (5 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

e) List two (2) measures that could be undertaken in an emergency department to educate patients regarding paracetamol (2 marks)

1. _____

2. _____

Question 13 (16 marks) 6 minutes

You are the duty consultant working in a metropolitan Victorian emergency department during the summer months.

A 4 year-old boy presents to triage with his parents. He sustained an injury while playing outside in the garden around 90 minutes ago. Apart from a sore foot, he has no other symptoms.

A photograph of his foot is reproduced and shown in PROPS booklet ; page 12 .

a) List two (2) key, initial management priorities? (2 marks)

1. _____

2. _____

b) List four (4) important features to look for on examination (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 13 (continued)

c) List five (5) critical blood tests required for this patient and list one expected abnormality for each test (10 marks) ?

	Investigation	Expected Abnormality
1		
2		
3		
4		
5		

Question 14 (17 marks) 6 minutes

A 55 year old woman with PMH of hypertension, presents with features suggestive of severe community acquired pneumonia to your tertiary emergency department. She is 70 Kg ,Her vitals :

HR 130 bpm
 BP 90/45 mmHg
 Sats 87% on 15 L O2 hudson mask
 RR 50 / min
 Temp 37.6 °C

You decide that urgent intubation is required. IV antibiotics and 1 Litre Normal Saline are given with no change to her observation.

a) List you medication regime for RSI (including dosage) and state one (1) justification for this regime. (9 marks)

	Medication	Dosage	Justification
1			
2			
3			

On first attempt at intubation, you achieve a grade 4 view of the vocal cords.

b) state two (2) things you will do to **optimise this view** before attempting to intubate. (2 marks)

1. _____

2. _____

Question 14 (continued)

After optimising your view the best you can get is a grade 3 view.

c) state two (2) options you might utilise to optimise your chance of successful intubation on this attempt? (2 marks)

1. _____

2. _____

After you attempt intubation, the patient becomes hypoxic and you are concerned the ETT might be in the oesophagus.

d) State Four (4) methods to identify the correct ETT position in this patient? (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 15 (16 marks) - 6 minutes

Your department scored poorly on a recent consumer survey. You are asked to head up a working group to improve patient experience in your emergency department.

a) List four (4) contributors to poor patient experience (4 marks)

1. _____

2. _____

3. _____

4. _____

b) List four (4) interventions that could improve patient experience (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 15 (continued)

c) Choose one of the interventions from part (b) and, using the 4 steps of the quality improvement cycle, describe how you would implement it. (8 marks)

Quality cycle step	Implementation

Question 16 (16 marks) 6 minutes

It is Friday 1600 hrs and You are the consultant in charge of emergency department in a tertiary hospital. You have been notified that a truck carrying **Chlorine Gas** has rolled over in one of the busiest motorways close to your hospital. Initial ambulance communication suggests that at least Thirty (30) bystanders, including 4 children may be affected.

a) State (2) specific preparations that you would you make for this particular exposure (2 Marks)

1. _____

2. _____

b) List Seven (7) steps in preparing your department (7 marks)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Question 16 (marks) 6 minutes

c) List four (4) signs or symptoms of chlorine exposure that you would look for. (4 marks)

1. _____

2. _____

3. _____

4. _____

You have been asked to review the current guidelines for Disaster management in your department,

d) State three (3) important steps for this review process (3 marks)

1. _____

2. _____

3. _____

Question 17 (11 marks) 6 minutes

A 3 month baby is brought to your regional Emergency department with a new lump in his left groin, **photo is shown in PROPS booklet ; page 13 .**

a) List four (4) differential diagnosis for his condition. (4 marks)

1. _____

2. _____

3. _____

4. _____

b) List three (3) likely complications of this condition (3 marks)

1. _____

2. _____

3. _____

Question 17 (continued)

c) List four (4) predisposing factors for this condition. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 18 (25 marks) 9 minutes

A 65 year old woman presents with a recurrent exacerbation of chronic obstructive airways disease worsening overnight, She is alert but looks tired and Her Vital signs are:

HR 130 bpm ; BP 105/45 mmHg ; Sats 87% on 15 L O₂ hudson mask ; RR 50/min ; T 37.6 °C

a) List Four (4) indications and contra-indications for non-invasive ventilation in any patient (8 marks).

	Indications	Contra-indications
1		
2		
3		
4		

an Arterial blood gas has been performed which shows :

pH 7.21

pCO₂ 70 mmHg

pO₂ 75 mmHg

HCO₃ 27 mmol/l

B.E. -1.5

Lactate 1.9 mmol/l

Question 18 (continued)

b) What form of NIV would you recommend for this patient? And why? (2 marks)

c. What three (3) initial settings for the above mode of NIV would you choose? and why? (6 marks)

	Setting	Justification
1		
2		
3		

A few minutes after starting NIV, as the x-ray was being taken, she became suddenly unwell with chest pain, increased work of breathing. Her vital signs:

HR 135 bpm ; BP 75/45 mmHg ; Sats 80% on NIV 100% FiO₂ ; RR 60/min.

As you resuscitate her the x-ray becomes available and **shown in PROPS booklet; page 14.**

d) What complication of NIV has she suffered? (1 Mark)

Question 18 (continued)

e) State four (4) emergent management tasks that should be performed? (4 marks)

1. _____

2. _____

3. _____

4. _____

f) List four (4) other complications can occur with NIV? (4 marks)

1. _____

2. _____

3. _____

4. _____