University Hospital, Geelong
Emergency Medicine
Trial Fellowship Exam
Short Answer Questions (SAQ)
Week 23

DIRECTIONS TO CANDIDATE

1. Answer each question in the space provided in this question paper.

2. Do not write your name on this question paper.

3. Enter your examination number in the space below.


5. Do not begin the exam until instructed to do so.

6. Do not take examination paper or materials from this room.

7. The booklet binder may be removed during the exam.

QUESTION & ANSWER

BOOKLET
Question 1 (18 marks)

A 35 year old man experiences a fall and sustains an isolated left wrist injury.

Xrays are taken- refer to the props booklet page 2.

a. State two (2) abnormal findings in these xrays. (2 marks)

1. 

2. 

You decide to correct the abnormality with a local anaesthetic, manipulation and plaster.

b. List five (5) patient-related possible contraindications to the performance of this procedure. (5 marks)

1. 

2. 

3. 

4. 

5. 

____________________________________  _____________________________________
Question 1 (continued)

c. List your preferred drug and dose for this procedure. (2 marks)

Drug
________________________________________________________________________

Dose
________________________________________________________________________

During the procedure the patient experiences a seizure. The patient is transferred to a resuscitation cubicle and is placed in the left lateral position.

d. List five (5) steps in the management of this toxicity, for this patient. (5 marks)

1. _______________________________________________________________________

2. _______________________________________________________________________

3. _______________________________________________________________________

4. _______________________________________________________________________

5. _______________________________________________________________________
Question 1 (continued)

e. List four (4) potential errors that may have led to the seizure. (4 marks)

1. ____________________________________________________________

2. ____________________________________________________________

3. ____________________________________________________________

4. ____________________________________________________________
Question 2 (12 marks)

a.Regarding Rheumatic fever, list the five (5) major manifestations that are included in the modified Jones criteria. (5 marks)

1. ___

2. ___

3. ___

4. ___

5. ___

b. Regarding Rheumatic fever, list the four (4) minor manifestations that are included in the modified Jones criteria. (4 marks)

1. ___

2. ___

3. ___

4. ___
c. Regarding Rheumatic fever, list two (2) investigations that may assist with definitive diagnosis. (2 marks)

1. 

2. 

d. Regarding Rheumatic fever, list one (1) patient group in Australasia that is most likely to experience the disease. (1 mark)

_______________________________________________________________
Question 3 (12 marks)

A 35 year old woman presents with decreased vision in her right eye.

A photograph of her fundus is taken- refer to the prop booklet page 3.

a. What is the diagnosis for her condition? (1 mark)

b. List two (2) different aetiologies that are associated with this condition. (2 marks)

1. 

2. 

c. List two (2) features that you would expect the patient to report in the pattern of her visual loss. (2 marks)

1. 

2. 
Question 3 (continued)

d. Other than retinal appearance, list the two (2) main features that you would expect on examination. (2 marks)

1. 

2. 

The patient is referred to the Ophthalmology team.

e. List three (3) key management steps for this patient while in the emergency department. (3 marks)

1. 

2. 

3.  

f. Which two (2) factors have the major influence on prognosis in this condition? (2 marks)

1. 

2. 
Question 4 (12 marks)

a. List five (5) factors that improve adaptation to shift work. (5 marks)

1. ________________________________________________________________

2. ________________________________________________________________

3. ________________________________________________________________

4. ________________________________________________________________

5. ________________________________________________________________
Question 4 (continued)

b. Regarding rostering, list seven (7) barriers to best practice rostering. (7 marks)

1. ________________________________________________________________

2. ________________________________________________________________

3. ________________________________________________________________

4. ________________________________________________________________

5. ________________________________________________________________

6. ________________________________________________________________

7. ________________________________________________________________
Question 5 (10 marks)

A 45 year old man presents with palpitations. He has no chest pain.

On examination:

BP 140/60 mmHg
RR 20 / min
Oxygen saturation 98% on 6L via Hudson mask
GCS 15

An ECG is taken - refer to the prop booklet page 4.

a. List five (5) abnormalities shown in this ECG. (5 marks)

1. 

2. 

3. 

4. 

5. 

b. State a unifying diagnosis for these ECG findings. (1 mark)

________________________________________________________________________
c. List two (2) alternative, definitive treatment options for this patient. State one (1) justification for each choice. (4 marks)

Choice 1: ____________________________________________

Justification: ________________________________________

Choice 2: ____________________________________________

Justification: ________________________________________
Question 6 (13 marks)

An unknown 32 year old woman is involved in a single occupant high speed, rollover motor car collision. On arrival she is confused. Her observations are:

<table>
<thead>
<tr>
<th>Observation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>100/60 mmHg supine</td>
</tr>
<tr>
<td>HR</td>
<td>135 /min</td>
</tr>
<tr>
<td>RR</td>
<td>28 / min</td>
</tr>
<tr>
<td>Oxygen saturation</td>
<td>92% on 6L via Hudson mask</td>
</tr>
<tr>
<td>GCS</td>
<td>13 E4 V4 M5</td>
</tr>
</tbody>
</table>

An xray is taken - refer to the prop booklet page 5.

a. List one (1) positive finding in this xray. (1 mark)

b. List three (3) radiological investigations that you would perform. State one (1) justification for each choice. (6 marks)

<table>
<thead>
<tr>
<th>Radiological investigation (3 marks)</th>
<th>Justification (3 marks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Question 6 (continued)

c. List three (3) key pathology investigations that you would perform in this case. State one (1) justification for each choice. (8 marks)

<table>
<thead>
<tr>
<th>Pathological investigation (3 marks)</th>
<th>Justification (3 marks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Question 7 (12 marks)

A 49 year old woman presents via ambulance to the Emergency Department. She has moderately severe thoracic back pain.

a. List five (5) indications for the performance of x-rays of her thoracic spine. (5 marks)

1. _______________________________________________________________________

2. _______________________________________________________________________

3. _______________________________________________________________________

4. _______________________________________________________________________

5. _______________________________________________________________________

Selected serum biochemical results are taken - refer to the props booklet page 6.

b. Provide one (1) calculation to help you to interpret these results. (1 mark)

Calculation: ____________________________________________________________________

___________________________________________________________________________

c. State a likely unifying explanation for these results in this clinical context. Include three (3) points in your answer. (3 marks)

1. _______________________________________________________________________

2. _______________________________________________________________________

3. _______________________________________________________________________
Question 7 (continued)

d. List three (3) key steps in the specific treatment of her biochemical state. (3 marks)

1. __________________________________________________________________________

2. __________________________________________________________________________

3. __________________________________________________________________________
Question 8 (11 marks)

A 32 year old man has been hit in the “groin” with a cricket ball the previous evening. He is complaining of a painful swollen scrotum.

A photograph is taken- refer to the prop booklet page 7.

a. List three (3) positive findings that you may anticipate on a formal ultrasound of this patient’s scrotum. List one (1) injury that each finding is associated with. For each of these findings, identify whether the finding is an indication for surgical exploration-yes/no. (9 marks)

<table>
<thead>
<tr>
<th>Ultrasound finding (3 marks)</th>
<th>Injury associated with finding (3 marks)</th>
<th>Indication for exploration? Yes/ No (3 marks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Question 8 (Continued)

The ultrasound is reported normal.

b. List your disposition. State one (1) justification for your choice. (2 marks)

Disposition: ____________________________________________________________

Justification: ___________________________________________________________
Question 9 (18 marks)

A 65 year old man presents with a painful left lower leg.

a. You are concerned about the possibility of deep venous thrombosis.

   i. What is the role of age-adjusted cut-off DDimer level for this patient? State four (4) points in your answer. (4 marks)

   1. __________________________________________________________________________

   2. __________________________________________________________________________

   3. __________________________________________________________________________

   4. __________________________________________________________________________

b. You suspect a diagnosis of superficial thrombophlebitis.

   i. State four (4) indications for the performance of lower limb ultrasound for this patient. (4 marks)

   1. __________________________________________________________________________

   2. __________________________________________________________________________

   3. __________________________________________________________________________

   4. __________________________________________________________________________
Question 9 (Continued)

c. An ultrasound confirms superficial thrombophlebitis only.

   i. State three (3) indications for anticoagulation therapy for this patient. (3 marks)

1. __________________________________________________________________________

2. __________________________________________________________________________

3. __________________________________________________________________________
d. An isolated below knee DVT is confirmed on ultrasound.

i. State (2) indications for anticoagulation therapy for this patient. (2 marks)

1. ________________________________________________________________

2. ________________________________________________________________

ii. Other than warfarin, list two (2) anticoagulation options for this patient. (2 marks)

1. ________________________________________________________________

2. ________________________________________________________________

iii. Assuming that there is no indication for anticoagulation therapy, list three (3) steps in your ongoing management of this patient. (3 marks)

1. ________________________________________________________________

2. ________________________________________________________________

3. ________________________________________________________________
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Question 1
Question 2
Question 3
Question 4
### Question 7

**Reference range**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Reference Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Na</td>
<td>140</td>
<td>(135-145)</td>
</tr>
<tr>
<td>K</td>
<td>5.0</td>
<td>(3.5- 5.0)</td>
</tr>
<tr>
<td>Urea</td>
<td>28.2</td>
<td>(2.5- 6.4)</td>
</tr>
<tr>
<td>Creatinine</td>
<td>0.13</td>
<td>(0.05- 0.1)</td>
</tr>
<tr>
<td>Calcium</td>
<td>5.5</td>
<td>(2.1- 2.8)</td>
</tr>
<tr>
<td>Albumin</td>
<td>30 g/L</td>
<td>(35-50)</td>
</tr>
<tr>
<td>AP</td>
<td>150 IU/L</td>
<td>(0-120)</td>
</tr>
<tr>
<td>GGT</td>
<td>115 IU/L</td>
<td>(&lt;50)</td>
</tr>
<tr>
<td>ALT</td>
<td>152 IU/L</td>
<td>(&lt;55)</td>
</tr>
<tr>
<td>AST</td>
<td>125 IU/L</td>
<td>(0-50)</td>
</tr>
<tr>
<td>Bili Total</td>
<td>15 μmol/L</td>
<td>(0-19)</td>
</tr>
<tr>
<td>T. Protein</td>
<td>61 g/L</td>
<td>(60-82)</td>
</tr>
</tbody>
</table>
Question 8