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University Hospital, Geelong
Emergency Medicine
Trial Fellowship Exam
Short Answer Questions (SAQ)
Week 6

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.
4. Cross out any errors completely.
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 (20 marks) 9 minutes

A 69 year old female presents to ED with 24 hours of fever. You suspect a community acquired pneumonia.

- a. State the four (4) components of the “CORB” scale for assessment of pneumonia severity. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 1 (continued)

- b. State the eight (8) components of the “SMART-COP” scale for assessment of pneumonia severity for a patient less than 50 years of age. (8 marks)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

- c. What is the role of these scoring systems for the Emergency Department patient?
State four (4) points in your answer. (4 marks)

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

Question 1 (continued)

A chest xray is performed reveals lobar pneumonia.

Selected blood results are taken-see props booklet- page 1.

- d. What is the significance of the abnormalities for each of the variables listed, for this patient? State one (1) point for each variable. (4 marks)

| Variable | Significance for this patient (4 marks) |
|---------------------------------|--|
| Haemoglobin (1 mark) | |
| White cell count (1 mark) | |
| Haematocrit (1 mark) | |
| Neutrophil (1 mark) | |

Question 2 (18 marks) 9 minutes

A 62 year old male is injured in a high speed motor vehicle crash. He is transferred to your regional trauma centre after having been treated at a peripheral hospital.

A CXR is taken on arrival to your centre- refer to the props booklet- page 2.

a. State six (6) abnormal findings shown in this xray. (6 marks)

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

Following primary and secondary survey, his injuries appear to be restricted to the chest. His blood pressure, taken soon after this xray is performed, is noted to be 70 and pulse rate is 160.

b. List six (6) likely causes for these vital signs. (6 marks)

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

Question 2 (continued)

The patient arrests soon after this xray is performed.

- c. What temperature range would you aim for in the ongoing management of this patient? (1 mark)

- d. State five (5) points of justification for your choice of this range. (5 marks)

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

Question 3 (14 marks) 6 minutes

A 38 year old female presents to the Emergency Department with left sided abdominal pain.

A CT scan is taken- refer to the props booklet- page 3.

a. State four (4) abnormal findings shown in this image. (4 marks)

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

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

| | Investigation (3 marks) | Justification (3 marks) |
|----|----------------------------|----------------------------|
| 1. | | |
| 2. | | |
| 3. | | |

Question 3 (continued)

- c. State four (4) medical factors that would influence your disposition for this patient. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 4 (12 marks) 6 minutes

A 5 year old boy sustains an isolated injury to his lip.

A photo of the boy on arrival is taken- refer to the props booklet- page 4.

- a. List four (4) factors that would influence your choice of location of closure (in theatre vs in the Emergency Department). (4 marks)

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

The wound is to be repaired in the ED.

- b. State your choice of local anaesthesia. (1 mark)

- c. State two (2) reasons to justify your choice of local anaesthesia. (2 marks)

1. _____
2. _____

Question 4 (continued)

d. State your choice of suture material. (1 mark)

e. State two (2) reasons to justify your choice of suture material. (2 mark)

1.

2.

f. State your choice of sedation. (1 mark)

g. State two (2) reasons to justify your choice of sedation. (2 mark)

1.

2.

Question 5 (12 marks) 6 minutes

A 24 year old man was involved in a high speed motor vehicle crash.

An Xray is performed- refer to the props booklet page 5.

- a. State the diagnosis suggested by this image. (1 marks)

- b. List three (3) examination features that may have predicted this injury. (3 marks)

1. _____

2. _____

3. _____

- c. State the injury associated with each grade for this injury. (5 marks)

Grade 1: _____

Grade 2: _____

Grade 3: _____

Grade 4: _____

Grade 5: _____

Question 5 (continued)

- d. State three (3) examination findings that are able to be used to exclude urethral injury in the setting of a penetrating mechanism of injury. (3 marks)

1. _____

2. _____

3. _____

Question 6 (12 marks) 6 minutes

A 40 year old male self presents to your Emergency Department which is located in a regional centre, with no cardiology facilities on site. The nearest Cardiology service is 90 minutes away by road. He has a history of chest pain for the last 30 minutes.

His observations are:

| | | |
|-------------------|---------|----------|
| BP | 140/ 60 | mmHg |
| RR | 18 | bpm |
| Oxygen saturation | 98% | Room air |

An ECG taken on arrival (with pain)- refer to the prop booklet- page 6.

a. State two (2) abnormalities shown on this ECG. (2 marks)

1. _____

2. _____

b. What is the significance of these findings? State two (2) points of significance. (2 marks)

1. _____

2. _____

Question 6 (continued)

- c. Assuming no contraindications and no further complications of his condition, list four (4) medications that you would use for this patient. Provide doses for each. (8 marks)

| | Medication (4 marks) | Dose (4 marks) |
|----|---------------------------------|---------------------------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |

Question 7 (12 marks) 6 minutes

A 52 year old male presents to ED with recent onset of non traumatic, macroscopic haematuria.

a. List five (5) likely differential diagnoses for this presentation. (5 marks)

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

Question 7 (continued)

b. Other than true haematuria, four (4) causes of dark brown urine. (4 marks)

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

c. List three (3) causes of red cell urinary casts. (3 marks)

1. _____
2. _____
3. _____

Question 8 (11 marks) 6 minutes

A 24 year old female presents to ED with 2 weeks of painful isolated lower leg lesions.

A photograph of her lower legs is taken- the props booklet- page 7.

- a. What is the most likely diagnosis of this rash? (1 marks)

- b. List six (6) likely causes for this rash. (6 marks)

1.

2.

3.

4.

5.

6.

Question 8 (continued)

- c. List four (4) investigations that you would perform if the cause is not evident on clinical assessment. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 9 (11 marks) 6 minutes

An 83 year old male presents to Emergency Department with abdominal pain.

An Xray is taken- refer to the props booklet- page 8.

a. State two (2) abnormalities shown in this Xray. (2 marks)

1. _____

2. _____

b. List four (4) risk factors for the development of this condition. (4 marks)

1. _____

2. _____

3. _____

4. _____

Question 9 (continued)

d. List three (3) potential complications of this condition. (3 marks)

1. _____

2. _____

3. _____

e. List the two (2) corrective treatments required for this condition. (2 marks)

1. _____

2. _____

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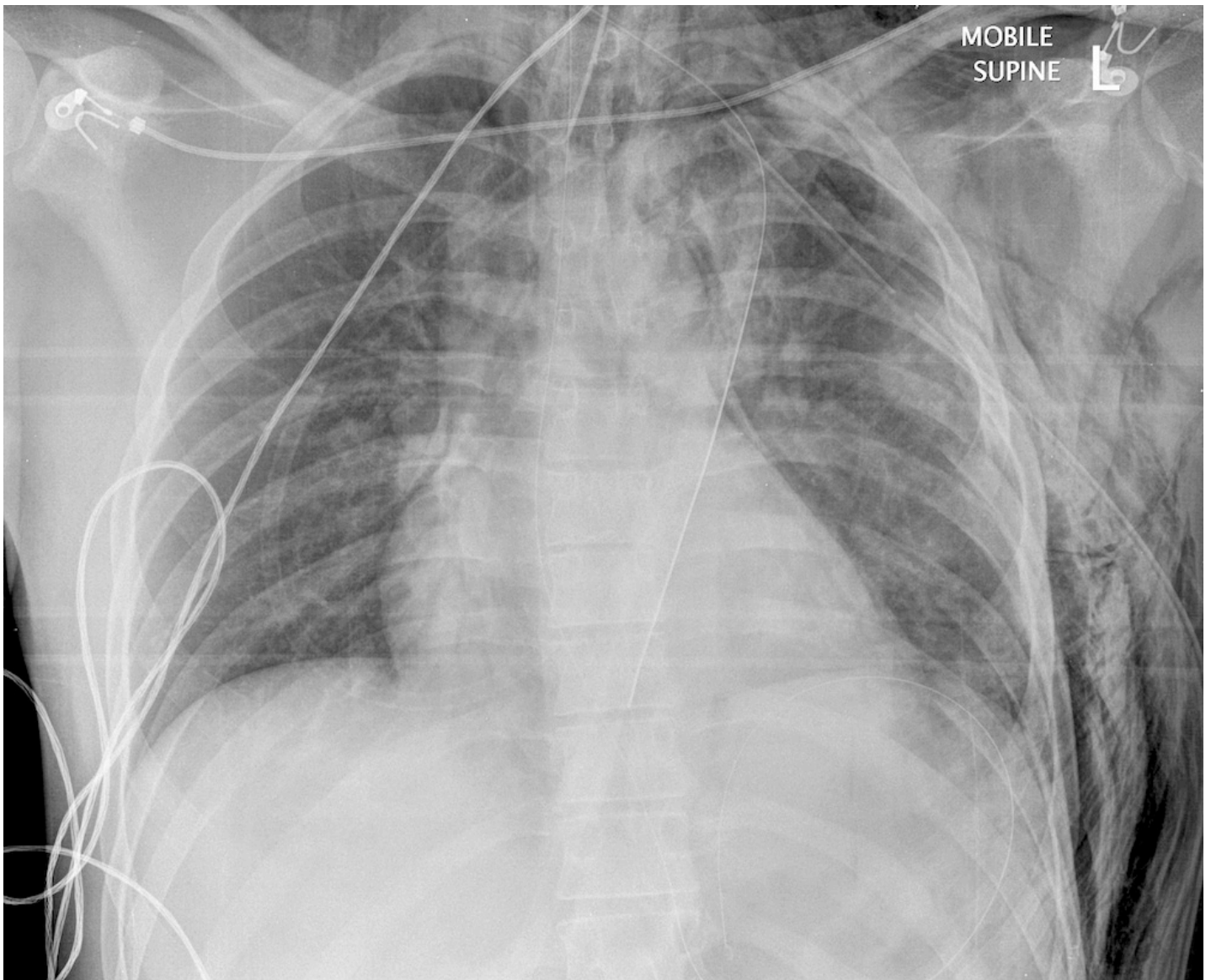
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PROP BOOKLET

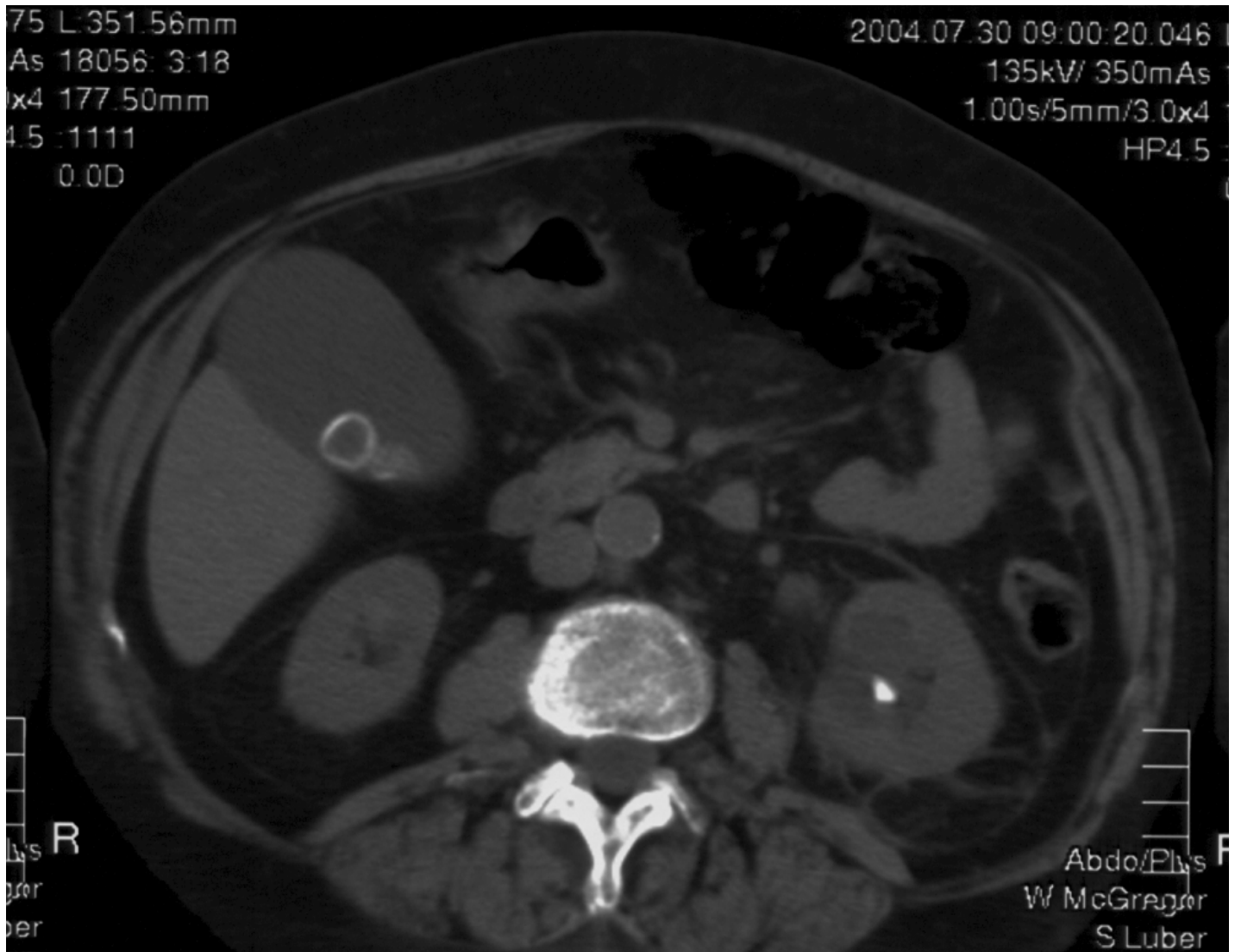
Question 1

| | | | Reference Range |
|------------------|------|--------------------|-----------------|
| Haemoglobin | 63 | gm/L | 115 - 160 |
| WCC | 0.60 | $\times 10^9/L$ | 4 - 11 |
| Platelets | 8 | $\times 10^9/L$ | 150 - 400 |
| Red cell count | 1.99 | $\times 10^{12}/L$ | 3.80 – 5.80 |
| Haematocrit | 0.18 | | 0.37 – 0.47 |
| Mean Cell Volume | 92 | fL | 80 - 100 |
| Neutrophils | 0.38 | $\times 10^9/L$ | 2.0 – 7.5 |

Question 2



Question 2



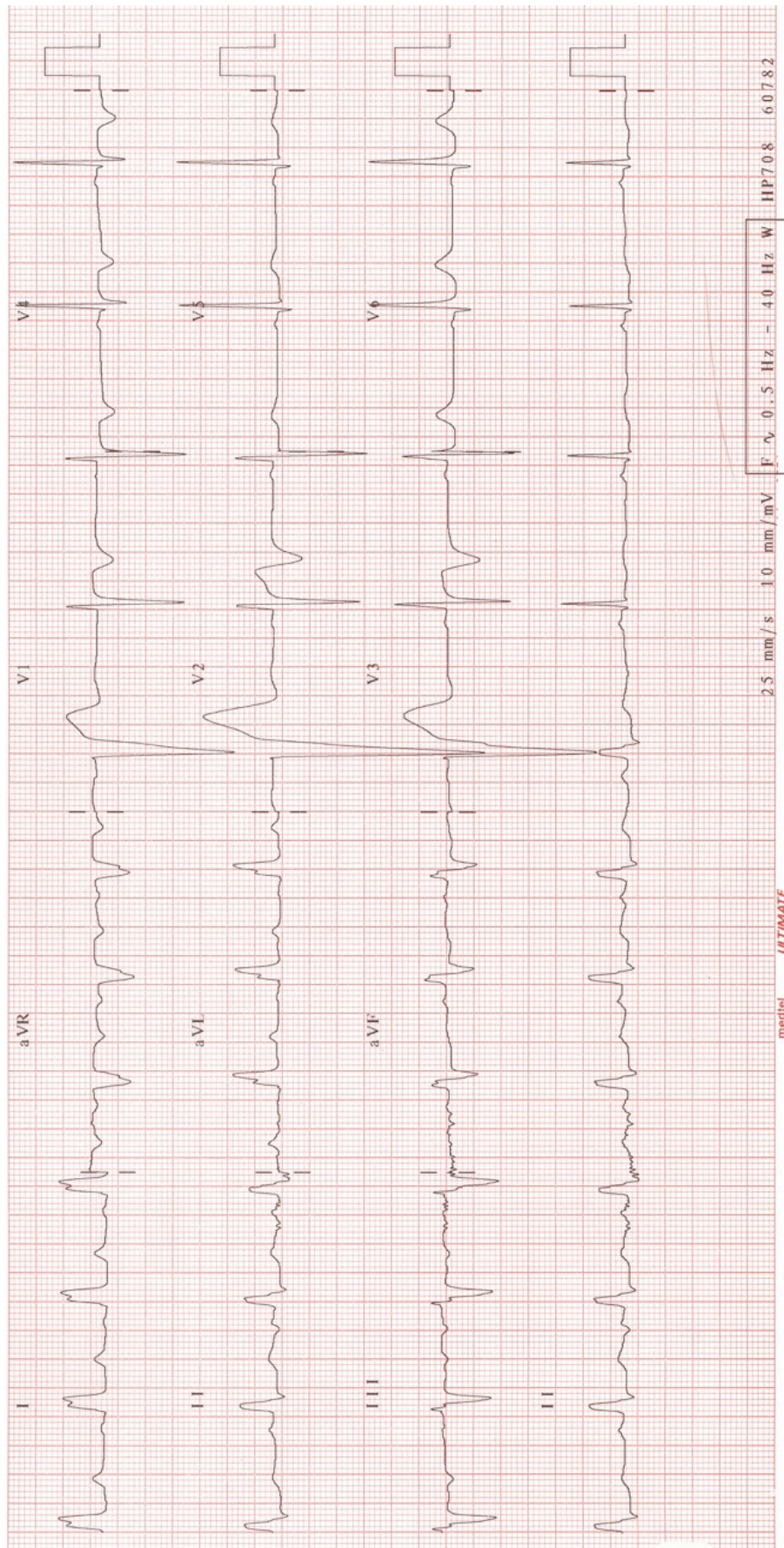
Question 4



Question 5



Question 7



Question 8



Question 9

