



NSW Fellowship Course
TRIAL FELLOWSHIP EXAMINATION
St George Hospital 2016.1

WRITTEN EXAMINATION
Short Answer Questions

PART 3

Instructions:

- **There are 3 separate books, each worth 100 marks (for a total of 300 marks).**
- **Time Allowed: 3 hours.**
- **Each booklet should be completed in 1 hour.**
- **All images are reproduced in the accompanying 'props' booklet.**
- **Answer each question on the provided examination paper.**
- **Write your name on each page in the space provided.**

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QUESTION 18 (10 MARKS)

A 74-year-old woman presents with light-headedness, lethargy and palpitations.

Her vital signs are BP 100/60, HR 124/min, temp 37, SaO₂ 99% on room air.

She has a past medical history of type 2 diabetes, hypertension and has a pacemaker for heart block. Her pacemaker card indicates she has a DDD pacemaker.

1. Describe the DDD function of her pacemaker. (2 marks)

See ECG on page 23 in separate book

2. Describe her ECG. (2 marks)

3. List **2** differential diagnoses (2 marks)

(1) _____

(2) _____

4. List **4** management steps you would initiate for her. (4 marks)

(1) _____

(2) _____

(3) _____

(4) _____

QUESTION 19 (10 MARKS)

A four-year-old girl presents to the Emergency Department with an isolated Left Elbow injury after falling 2 metres from a climbing frame in a local park. She is in severe pain and refusing to move her arm.

1. Describe how you would manage her pain giving doses and routes of drugs. (4 marks)

See image on page 24 in separate book

2. Describe **four** abnormalities shown. (4 marks)

(1) _____

(2) _____

(3) _____

(4) _____

3. List **two** immediate / early complications of her injury. (2 marks)

(1) _____

(2) _____

QUESTION 20 (9 MARKS)

A 24-year-old man with a history of hydrocephalus presents with headache, malaise and fever. He has a ventriculoperitoneal shunt.

1. Aside from the peritoneal cavity, list **2** other potential sites for the drainage limb of a ventricular shunt (2 marks).

(1) _____

(2) _____

2. Apart from infection, list **3** causes of shunt obstruction. (3 marks)

(1) _____

(2) _____

(3) _____

3. What is the most commonly cultured micro-organism in CSF shunt infections? (1 mark)

4. What is the role of lumbar puncture in a patient with a ventriculoperitoneal shunt? (1 mark)

See CT on page 25 in separate book

5. What is the diagnosis? (2 marks)

QUESTION 21 (10 MARKS)

A 62-year-old male with a history of chronic pancreatitis presents to the Emergency Department with several days of nausea and vomiting.

His biochemistry profile is attached:

Parameter	Patient Value	Normal Adult Range
Arterial Blood Gas		
FiO ₂	0.4	
pH	7.62*	7.35 – 7.45
PCO ₂	62 mmHg* (8.2 kPa)*	36 – 45 (4.6 – 6.0)
PO ₂	133 mmHg (17.5 kPa)	
Bicarbonate	65 mmol/L*	21 – 28
Base Excess	> 30 mmol/L*	-3 – +3
Sodium	149 mmol/L*	135 – 145
Potassium	3.3 mmol/L*	3.5 – 5.2
Chloride	53 mmol/L*	95 – 110
Calcium ionised	0.74 mmol/L*	1.12 – 1.32
Lactate	2.7 mmol/L*	< 1.3
Venous biochemistry		
Urea	34.9 mmol/L*	3.0 – 8.0
Creatinine	431 micromol/L*	60 – 110

1. Interpret the abnormalities in the results. (3 marks)

2. Give likely underlying causes for the main metabolic acid-base disturbances. (3 marks)

3. Describe the clinical features of severe hypocalcaemia. (2 marks)

4. Outline your management of symptomatic hypocalcaemia. (2 marks)

QUESTION 22 (12 MARKS)

You are preparing a presentation on the management of patients who present to the emergency department in labor, and the delivery is imminent.

Fill in the following table describing signs and management of common problems in labor.

Problem	Signs	Management
Nuchal Cord		
Shoulder Dystocia		
Cord Prolapse		
Post Partum Haemorrhage		

QUESTION 23 (11 MARKS)

You are the in-charge consultant at an urban district hospital. You receive a batcall about a 2-year-old who has been dragged unconscious from a backyard pool. It is the middle of winter.

His vital signs en route are:

HR	70	GCS	Unresponsive
BP	70/40	Temp	30 degrees
O2 sats	90% (bag valve mask FiO2 1.0)		

1. List **4** predictors of poor outcome in drowning. (4 marks)

(1) _____

(2) _____

(3) _____

(4) _____

You intubate this child on arrival.

See his initial CXR on page 27 in separate book

2. List **2** relevant features at this stage of the patient's management. (2 marks)

(1) _____

(2) _____

3. What ventilation strategies would you use? (2 marks)

4. What are your other initial management priorities? (3 marks)

QUESTION 24 (12 MARKS)

A 60-year-old man with a past history of type 2 diabetes presents after being found on the floor by his elderly mother. He has recently been unwell with vomiting for the last 3 weeks.

His vital signs are:

BP 65/30

GCS 13

Pulse 120 regular

Oxygen saturations 100% on 15 L NRM.

See arterial blood gas on page 28 in separate book

1. Interpret the abnormalities in the above results. (4 marks)

2. How would you initially manage these abnormalities? (3 marks)

The patient's GCS deteriorates to 5 and he begins vomiting.

3. What is your plan with regards to intubating this patient, and what ventilation strategy would you employ? (5 marks)

QUESTION 25 (14 MARKS)

A 34-year-old man presents 10 days after a business trip to Papua New Guinea. He has had fevers, malaise, generalised aches and frequent episodes of diarrhoea.

HR 130

BP 100/50

Temp 38

Sats 98% on air.

1. List 10 potential causes of fever & illness in this man. (5 marks)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. What blood tests will you request? (3 marks)

Investigation	Justification

3. List **4** major complications of severe Plasmodium falciparum malaria. (4 marks)

i. _____

ii. _____

iii. _____

iv. _____

4. What are the **two** main choices for the urgent initial treatment of severe Plasmodium falciparum malaria? (2 marks)

(1) _____

(2) _____

QUESTION 26 (12 MARKS)

A 32-year-old Aboriginal woman presents to the ED with lethargy. She is previously well, and has not been seen by medical services for the previous 10 years.

Her VBG is attached:

pH	7.25
pCO ₂	24.4
HCO ₃	11.7
Hb	81
Na	140
K	5.1
Ca ⁺⁺	0.81
Cl	98
Gluc	9.6
Lact	0.9

1. What is the most likely cause for the abnormalities on the VBG?
Describe and interpret the abnormalities. (5 marks)

Her creatinine is 1842 with a urea of 62.

2. List 4 possible causes for these findings in a 32-year-old Aboriginal woman, with the most common cause first. (3 marks)

(1) _____

(2) _____

(3) _____

(4) _____

She becomes agitated and appears to be getting ready to leave the ED.

3. What would be some strategies to stop her leaving? (4 marks)

~END~