WRITTEN EXAMINATION
SHORT ANSWER QUESTIONS (SAQ)

NSW Fellowship Course
Trial Exam 2018:2

EXAMINATION TIME: 3 HOURS

DIRECTIONS TO CANDIDATE

1. Answer each question in the space provided in this question paper.
2. Enter your examination number in the spaces provided
3. Write your candidate number on every page (regardless of whether answered) - the booklet will be separated for marking and re-collated later.
4. DO NOT write your name on the examination booklet.

AFTER THE EXAMINATION

- Prior to leaving today, please fill out an envelope with your return address
- Feedback session: Westmead Hospital (Level 3 Rm C/D) 27/6/18 9am-12pm

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Question 1 (12 marks)

You receive pre-hospital radio notification from the ambulance service that they are en-route to your tertiary trauma centre.

- **Mechanism** - 42 year old male, unwitnessed quad bike roll over on a farm
- **Injuries** - Scalp wound, bilateral rib fractures, pelvic injury
- **Signs** - Respiratory rate 22/min, oxygen saturations 97% (on high flow oxygen), heart rate 125/minute, BP 85/40, GCS 14.
- **Treatment** - 1.5 litre Hartmann's.

(i) State three (3) important steps in preparation prior to patient arrival (3 marks)

i)

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ii)

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iii)

Pertinent findings on arrival include:

- Airway - patent, hard collar in situ
- Breathing - stable, bilateral rib tenderness
- Circulation - clinically shocked (BP 80/35, pulse 130)
- Disability - GCS 14. Pupils equal (3 mm)
- Exposure - Temperature 34°C / glucose 8.0 mmol/L

Further Assessment:

- Oozing Scalp Laceration
- Tibia Fracture (right) - open
- eFAST negative
- Chest X-ray - right sided 5-7 rib fractures
- Pelvis X-ray -multiple pelvic fractures through iliac bone, extending into acetabulum and both pubic rami on the right side

(ii) List two (2) key principles of your approach to fluid resuscitation and two (2) key principles of your disposition if he remains haemodynamically unstable (4 marks)

Fluid Resuscitation	Disposition

(iii) List five (5) OTHER immediate management priorities in this patient in regard to the specific management of haemorrhagic shock (5 marks)

i) _____

ii) _____

iii) _____

iv) _____

v) _____

Question 2 (20 marks)

A 46 year old male attends radiology (adjacent to the Emergency Department) for a Chest x ray. He is 3 days post Coronary Artery Bypass Graft (CABG) and currently an in-patient on the surgical ward. You attend an ALS call in radiology for the patient because he is increasingly short of breath.

On Clinical Examination:

- Chest wound appears intact and uninfected

The vital signs at triage are as follows:

- Temperature 36.9°C
- GCS 15
- Heart Rate 115/minute
- BP 90/52
- Respiratory Rate 30/minute
- Oxygen Saturations 95% (50% FiO2)

(i) List the four (4) MOST likely causes of the patient's symptoms (4 marks)

i)

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ii)

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iii)

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iv)

The patient is moved to the ED resus bay. Non-invasive monitoring is attached.

IV access is obtained and routine bloods are taken. A CXR has been ordered.

(ii) List and justify three (3) other bedside tests you would prioritise (6 marks)

Investigation	Justification

The patient suffers a sudden witnessed cardiac arrest.

Defibrillation pads are in place and the monitor demonstrates ventricular fibrillation.

(iii) List four (4) specific key steps in your systematic approach in the management of cardiac arrest in this context (4 marks)

i) _____

ii) _____

iii) _____

iv) _____

Following 5 minutes of resuscitation the patient has ROSC.

The post arrest ECG does NOT demonstrate a STEMI.

The Observations are as follows:

- Temperature 36.9°C
- GCS 6
- Heart Rate 70/minute
- BP 110/52
- Respiratory Rate 12/minute
- Oxygen Saturations 99% (100% FiO2)

(iv) In terms of post-arrest management, fill in the table below with three (3) priorities matched with appropriate endpoints or targets (6 marks)

Management Priorities	End Points / Targets

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Question 3 (12 marks)

A previously well 37 year old female presents to your Rural ED with a history of acute shortness of breath. She underwent an elective total thyroidectomy in an urban centre three (3) days ago and was discharged from hospital today. The patient has no other significant comorbidities. Her current medications include 100mcg of levothyroxine (once daily) and she reports no allergies.

Her initial observations at triage are documented as “stable”

(i) Other than hypocalcaemia, list four (4) important post-operative complications of thyroidectomy (4 marks)

i) _____

ii) _____

iii) _____

iv) _____

(ii) List three (3) clinical features associated with hypocalcaemia (3 marks)

i) _____

ii) _____

iii) _____

This patient has no clinical features to suggest hypocalcaemia.

On examination the patient is noted to have an expanding swelling affecting the anterior neck covered by a simple dressing, as well as audible stridor.

(iii) List five (5) immediate steps you will take to manage this situation (5 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

v)

_____

Question 4 (13 marks)

A 47 year old male presents to ED with a 3 day history of abdominal pain and vomiting. He has a past medical history of hypertension and type II diabetes mellitus.

The patient reports that he does not smoke or drink alcohol.

The vital signs at triage are as follows:

- Temperature - 38.1°C
- Heart rate - 118/minute
- BP - 88/60 mmHg
- Respiratory Rate -14/minute
- Oxygen Saturations - 96% (room air)

Blood results (EUC and LFT results) - shown in prop booklet

(i) List three (3) significant abnormalities on the blood results presented (3 marks)

i)

_____

ii)

_____

iii)

_____

(ii) State the MOST likely diagnosis in view of the information presented (1 mark)

i)

_____

(iii) State two (2) other diagnoses to account for the presentation and blood tests (2 marks)

i)

_____

ii)

_____

(iv) List and justify 3 investigations you would perform in this patient (3 marks)

Investigation	Justification
1.	
2.	
3.	

(v) List four (4) treatment priorities for this patient. For each listed treatment state your preferred choice of intervention or medication (including dose) (4 marks)

Treatment Priority	Intervention or specific drug/s (dose)
1.	
2.	
3.	
4.	

Question 5 (11 marks)

A 30 year old patient presents to the Emergency Department with painful priapism.

(i) State two (2) classifications (types) of priapism (2 marks)

i)

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ii)

(ii) List two (2) medications or therapies that can cause priapism (2 marks)

i)

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ii)

(iii) List two (2) medical conditions that are associated with priapism (2 marks)

i)

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ii)

(iv) State two (2) steps in the management of priapism in the Emergency Department and list three (3) methods or treatments to achieve Detumescence (5 marks)

Immediate Management Steps (2 marks)	1	
	2	
Methods of Detumescence (3 marks)	1	
	2	
	3	

Question 6 (11 marks)

An 18 year old male has been brought to your urban tertiary Emergency Department.

The ambulance officers state he fell to the ground after being allegedly punched outside a nearby hotel. Following the incident bystanders reported seizure and a postictal period.

Your initial assessment reveals a patient who smells strongly of alcohol, has a right periorbital haematoma and a large scalp laceration. He is currently alert but refuses to have further observations or examination by the trauma team. After 20 minutes he demands to be released to “go home”.

(i) List four (4) elements required for an assessment of capacity in regards to a patient to refusing treatment (4 marks)

i)

ii)

iii)

iv)

(ii) State two (2) factors specific to this case that may affect this patient’s right to self-discharge against medical advice? (2 marks)

i)

ii)

Despite attempts at reasoning the patient tries to walk out of the department

(iii) List five (5) immediate management priorities for this situation (5 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

v)

_____

Question 7 (12 marks)

You are the Director of Emergency Medicine Training (DEMT) working in a rural centre. As DEMT you are responsible for supervising various levels of training.

You are preparing to meet a resident medical officer (RMO) who has been listed as "*potentially borderline*" in their previous end of term assessments. Your director has asked you to arrange a meeting to discuss the RMO's progress in the first 3 weeks of their 10 week Emergency Department term. You have worked with this RMO on just two occasions and have noticed this doctor to be below average but not unprofessional. However, your director states that concerns have been raised for this doctor's welfare by several other staff members.

(i) State four (4) factors that could contribute to ourselves, or colleagues "*being in difficulty*" and for each factor listed state a matched example (4 marks)

Factors and Matched Examples
i)
ii)
iii)
iv)

(ii) State two (2) important steps in preparation prior to meeting the RMO (2 marks)

i)

_____

ii)

_____

(iii) State three (3) steps you would take in order to conduct this meeting in an appropriately professional manner (3 marks)

i)

_____

ii)

_____

iii)

_____

(iv) List three (3) examples of shared goals that could be established following this meeting (3 marks)

i)

_____

ii)

_____

iii)

_____

Question 8 (8 marks)

A 65 year old female presents after 24 hours of refractory vomiting associated with moderate intermittent abdominal pain. She has represented now feeling more unwell having “not waited” yesterday during a period of severe access block. Past medical history includes hypothyroidism. Blood results are shown in the prop booklet.

The initial observations are recorded at triage:

- Temperature - 35.6°C
- Heart rate - 70/minute
- BP - 105/50 mmHg (postural drop of 25 mmHg)
- Respiratory Rate - 24/minute
- Oxygen Saturations - 99% (room air)

(i) List four (4) differential diagnoses in view of the blood results presented (4 marks)

i) _____

ii) _____

iii) _____

iv) _____

(ii) List three (3) immediate management priorities (3 marks)

i) _____

ii) _____

iii) _____

(iii) List a blood test may confirm an underlying endocrine diagnosis (1 mark)

i) _____

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Question 9 (18 marks)

A 20 year old male presents by ambulance to a tertiary Emergency Department with a sudden onset of headache. He vomited once at triage and was noted to be intoxicated. He admits to drinking alcohol today. A slice of his CT brain is provided.

(i) State two (2) positive findings on the CT slice provided (2 marks)

i)

ii)

(ii) List four (4) relevant negatives on the CT slice provided (4 marks)

i)

ii)

iii)

iv)

(iv) Complete the empty boxes in the table below to describe a scoring system to clinically grade and prognosticate your diagnosis (6 marks)

System Selected:
_____

Grade Level	A Description of Each Grade	Prognosis

You are notified by a junior doctor looking after this patient that they have discharged themselves against medical advice whilst waiting for a bed to become available.

The patient was in the waiting room due to access block.

(v) List two (2) important immediate actions at this point (2 marks)

i)

_____

ii)

_____

(vi) List four (4) strategies to minimise Emergency Department access block and overcrowding (4 marks)

i)

ii)

iii)

iv)

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Question 10 (15 marks)

A 34 year old male with a background of anxiety disorder is brought to ED after admitting to a significant single ingestion of carbamazepine. He presents to triage at 2 hours post-ingestion with nausea and abdominal pain.

An empty box of 200 mg carbamazepine with at least 60 controlled-release tablets missing is brought with him.

(i) Complete the following table for carbamazepine. State two (2) important drug receptor effects and state an expected associated clinical signs/symptom (4 marks)

Receptor/Neurotransmitter	Clinical Symptoms or Signs

(i) List and justify two (2) key treatment priorities (2 marks)

(i)

_____

(ii)

_____

(iii) State one (1) technique for enhanced elimination in this patient, one (1) specific clinical indication for its use and list two (2) limitations of the technique (5 marks)

Technique	Indications	Limitations
		1)
		2)

Question 11 (12 marks)

A 50 year old male is brought in to your rural emergency department by ambulance on a hot and humid day in late spring. The patient was found by their wife (a trained nurse) unconscious in an agricultural field beside his tractor.

Since being found, the GCS has improved slowly. He is now alert but confused.

The initial observations are recorded at triage:

- Temperature - 37.4°C
- Heart rate - 120/minute
- BP - 100/70 mmHg
- Respiratory Rate -18/minute
- Oxygen Saturations - 96% (room air)
- GCS 14

(i) List four (4) possible differential diagnoses to account for the presentation described (4 marks)

i)

ii)

iii)

iv)

On examination, you find the appearances shown in the attached clinical photograph

(ii) Describe the appearances shown and state the MOST likely diagnosis (2 marks)

Description:

Diagnosis:

(iii) List four (4) IMMEDIATE complications associated with this condition (4 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

(iv) List two (2) DELAYED complications requiring sub-specialty follow up (2 marks)

i)

_____

ii)

_____

Question 12 (11 marks)

A 46 year old female presented to a rural emergency department with acute chest pain which is positional and has become progressively worse over 2 days. The electronic medical record states her baseline ECG showed isolated anterior T-wave inversions. You ask to review her current ECG which was taken on arrival today.

The vital signs at triage are as follows:

- Temperature - 37.9°C
- Heart rate - 77/minute
- BP - 120/70 mmHg
- Respiratory Rate -15/minute
- Oxygen Saturations - 98% (room air)
- GCS 15, no neurological deficits

(i) List four (4) differentials for the ST elevation on the ECG presented (4 marks)

i)

ii)

iii)

iv)

(ii) The baseline ECG shows anterior T-wave inversions. List three (3) differentials to account for isolated T-wave inversions in this patient (3 marks)

i)

_____

ii)

_____

iii)

_____

(iii) Other than serum troponin, list and justify two (2) additional investigations you would perform at this point (4 marks)

Investigation Selected	Justification

Question 13 (13 marks)

A 22 year old female presents with difficulty walking and sensory changes that have become more pronounced over the last few days.

She has stayed in bed for the majority of the preceding week.

The two main differentials to be considered are:

- Cauda Equina
- Guillain Barre Syndrome

In the table below compare and contrast these two conditions in terms of the key clinical features (6 marks)

	Cauda Equina	Guillain Barre Syndrome (GBS)
Progression And time course		
Areas with diminished reflexes		
Distribution of Sensory Loss		

(ii) State the name of a variant of GBS that predominantly affects the eyes (1 mark)

i)

_____

(iii) List and justify two (2) beside investigations you would carry out in order to risk stratify a patient with GBS. (4 marks)

Investigation	Justification

(iv) State one (1) definitive specific management for GBS and where it should occur (2 marks)

i) Specific management (state one):

_____

ii) Location treatment should occur (state one):

_____

Question 14 (13 marks)

A 40 year old male is “streamed” to the department’s emergency short stay unit after a truncated review by a registrar at triage with a diagnosis of “flu like illness” during a period of access block in winter.

Two hours later, a resident informs you that the influenza point of care test is negative, the vital signs are normal, examination unremarkable and patient is feeling well. The patient is discharged home.

Three days later you are asked to attend a meeting in the director’s office. The same patient has presented with septic shock and symptoms of acute heart failure from acute aortic regurgitation secondary to bacterial endocarditis. The ED director has briefly reviewed the case. They have noted that the patient had a fever at discharge and the clinical examination was not documented. In addition, the patient had a known past history of intravenous drug use (IVDU). The patient is now in a stable condition in the high dependency unit (HDU) and satisfied with the care provided.

(i) State four (4) key considerations for selecting patients suitable for short stay unit admission (4 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

(ii) List three (3) system issues and three (3) individual issues highlighted by this case that could be improved for future patient care (6 marks)

System Issues	Individual Issues

(iii) List three (3) specific actions you will take to follow up the Emergency Department quality assurance issues raised by this case (3 marks)

i)

_____

ii)

_____

iii)

_____

Question 15 (13 marks)

You are asked to review a 38 year old male with several past presentations for ureteric colic. He reports today he had severe sudden onset right flank pain and is writhing around stating the pain is 10/10 severity. The patient's urine sample shows moderate blood. There are no leukocytes or nitrites.

(i) Approximately, what percent of patients with confirmed renal calculi do NOT have any red cells on urinalysis? (1 mark)

i)

_____

You decide that the patient requires further definitive imaging of the renal tract.

(ii) Fill in the table regarding the imaging modalities for used to investigate ureteric colic. In addition, provide one (1) advantage and one (1) disadvantage for each modality (9 marks)

Modality	Sensitivity (%)	Specificity (%)	Advantage	Disadvantage
Abdominal x-ray (AXR)				
Renal Ultrasound (departmental sonography)				
CT KUB				

(iv) State three (3) indications for admission of a ureteric colic patient under the urology team (other than ureteric obstruction) (3 marks)

i)

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ii)

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iii)

Question 16 (13 marks)

You have been tasked to lead a root cause analysis (RCA) into a possible prescribing error.

The hospital pharmacy dispensed ‘isoniazid’ instead of ‘indomethacin’ to a patient. To compound this error the Spanish speaking patient interpreted the label “*take once a day*” as take “*eleven*” per day.

The patient presented with refractory status epilepticus on your last clinical shift and intubation was required. The patient was taken to intensive care.

(i) State an antidote used as a specific treatment for isoniazid toxicity (1 mark)

i)

_____

(ii) List four (4) different sources you could use to help gather information for your investigation of the RCA (4 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

(iii) Give three (3) factors that may increase the chance of error in the emergency department and provide an example of each (6 marks)

Factor	Matched Clinical Example

The root cause analysis concludes the issue was a *'prescribing error'*.

(iv) In view of this finding, state two (2) recommendations for future improvements in safe prescribing from an Emergency Department perspective (2 marks)

i)

_____

ii)

_____

Question 17 (14 marks)

A 60 year old female presents to your urban Emergency Department after being found wandering the streets in a confused state.

The patient is known to the Emergency Department team with prior exacerbations of bipolar disorder.

She normally takes quetiapine slow release 200mg nocte and standard-release lithium 500mg twice a day. Since being with the ambulance crew she has vomited three times and had one episode of loose bowel motions. She appears mildly ataxic but the ambulance report to you she was able to walk unaided at the scene.

(i) List and justify five (5) laboratory investigations that are important in the further Emergency Department assessment of this patient (10 marks)

Investigation	Justification

(ii) You suspect chronic lithium toxicity. Prescribe and give justification for two (2) specific treatment choices for this patient (4 marks)

Treatment Choice	Justification

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Question 18 (14 marks)

A 65 year old presents to the Emergency Department with acute shortness of breath associated with an intercurrent upper respiratory tract infection. The patient has a relevant background history of COPD, weighs 70 kg and is a current smoker.

An Arterial Blood Gas (ABG) is performed as part of your initial Emergency Department assessment:

- pH: 7.30
- pO2: 57 mmHg
- pCO2: 64 mmHg
- HCO3: 30 mmol/L
- BE: +3
- Oxygen Saturations: 87%
- Lactate: 1.2

(i) Briefly state your interpretation of the ABG provided (2 marks)

After liaising with the respiratory team you collectively decide to place the patient on non-invasive ventilation (NIV).

(ii) State the two (2) modes, indications and examples of NIV use in the Emergency Department (6 marks)

	NIV Mode	NIV Indication	NIV Clinical Example
(1)			
(2)			

(iii) State your preferred ventilation mode and settings for this patient (1 mark)

i)

(iv) State two (2) factors that have been shown to decrease long term mortality in Chronic Obstructive Pulmonary Disease (COPD) patients (2 marks)

i)

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ii)

(v) List three (3) relative contraindications to the use of NIV (3 marks)

i)

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ii)

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iii)

Question 19 (13 marks)

A 25 year old male presents to your Emergency Department with acute abdominal pain and fever.

He has a past history of sickle cell disease

(i) List three (3) factors that could precipitate a sickle cell crisis (3 marks)

i)

ii)

iii)

(ii) Other than abdominal pain, list four (4) important Emergency Department presentations of sickle cell disease (4 marks)

i)

ii)

iii)

iv)

(iii) List three (3) immediate management priorities in sickle cell crisis (3 marks)

i)

_____

ii)

_____

iii)

_____

(iv) List three (3) indications for exchange transfusion in sickle cell crisis (3 marks)

i)

_____

ii)

_____

iii)

_____

Question 20 (11 marks)

A 14 year old female presents to the Emergency Department having been referred by her GP with *'abnormal'* blood results. She reports one week of fevers, lethargy and spontaneous bruising on her limbs.

Her mother reports she is normally well and doing well at school.

The patient reports headache and weakness in her hands. Her observations are normal. The GP has sent a referral letter with some flagged investigations:

- Hb 60
- WCC 0.4 (neutrophils 0.1)
- Platelets 4

(i) List four (4) broad diagnostic categories for the above presentation and a specific diagnosis example for each category (4 marks)

Diagnosis Category	Example
(1)	
(2)	
(3)	
(4)	

You ask the medical officer managing the patient about their examination findings.

(ii) List four (4) specific examination findings you want to know and why? (4 marks)

i)

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ii)

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iii)

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iv)

(iii) Aside from repeating baseline blood tests, list and justify three (3) specific investigations that are MOST important at this point (3 marks)

i)

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ii)

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iii)

Question 21 (12 marks)

A 67 year old female presents to the Emergency Department (ED) with a history of increasing Shortness of Breath over the last 2 days. She has a past medical history of Diabetes and Lung Cancer (NSCLC). An ECG is taken (see prop booklet).

Her vital signs are as follows:

- Temperature 38.1 ^{O}C
- Heart Rate 125/minute
- BP 75/45 mmHg
- Respiratory Rate 25/minute
- Oxygen Saturation 91% (6L Hudson Mask)

(i) State one (1) physiological mechanism by which a judicious fluid bolus improves perfusion in a 'shocked' patient (1 mark)

i)

(ii) List two (2) quantitative findings on a blood gas that would suggest a 'shocked' state (2 marks)

i)

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ii)

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iii) List four (4) abnormal findings on this patient's Electrocardiogram (4 marks)

i)

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ii)

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iii)

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iv)

(iv) State the three (3) MOST likely differential diagnoses to account for this patient's presentation (3 marks)

i)

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ii)

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iii)

(v) List two (2) other important differential diagnoses to account for this patient's acute presentation (2 marks)

i)

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ii)

Question 22 (14 marks)

A 19 year old female arrives in the Emergency Department by ambulance with excruciating abdominal pain. The patient reports PV bleeding. She appears pale and diaphoretic at triage. In addition, the ambulance officers report a syncopal episode whilst being assessed at home.

Her vital signs are as follows:

- Temperature 38.7 ^{O}C
- Heart Rate 120/minute
- BP 88/45 mmHg
- Respiratory Rate 28/minute
- Oxygen Saturation 97% (room air)

(i) State four (4) immediate management priorities with suitable targeted end-points (4 marks)

i) _____

ii) _____

iii) _____

iv) _____

(ii) Other than BHCG, list and justify three (3) other investigations that you would prioritise (6 marks)

Investigation	Justification

The patient's partner states that she is 9 weeks pregnant and that a recent ultrasound demonstrated a single intrauterine pregnancy.

(iii) State the MOST likely unifying diagnosis (1 mark)

i)

She continues to be tachycardic and febrile despite resuscitation and she is taken to theatre for urgent Dilatation and Curettage.

(iv) List three (3) complications of this procedure in this context (3 marks)

i)

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ii)

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iii)

Question 23 (13 marks)

You are invited to participate in a mountaineering expedition as part of your long service leave. You have been asked to act in the role of expedition medic.

The target for the mountaineers is Melungtse (altitude 7,181 metres) in the Rolwaling region of Nepal.

As part of your role you will remain at base camp (4000 metres). Your team consists of experienced climbers who have all ascended to high altitude previously.

(An equipment image is shown in the prop booklet)

Prior to departure, you are requested to supply prescriptions to the climbers for prophylaxis of complications.

(i) State one (1) medication that could be used as prophylaxis for acute mountain sickness and for each drug list a potential specific side effect (2 marks)

Medication Choice	Dose	Side Effect

(ii) One of the climbers declines to take her medication. List three (3) steps you would take to counsel this member of the team (3 marks)

i)

_____

ii)

_____

iii)

_____

As the expedition is at an altitude of 5,000 metres, one of the climbers radios you and complains of headache, dizziness, nausea, vomiting, fatigue and insomnia.

Your further assessment of the climber finds a mild tachycardia, normothermia, mild peripheral oedema and normal chest auscultation by a nurse attending to the patient.

iii) State the MOST likely diagnosis (1 mark)

i)

_____

(iv) The patient is given supplemental oxygen by a Sherpa. Other than oxygen, list two (2) non-pharmacological methods and two (2) pharmacological approaches to treatment of this climber (4 marks)

Pharmacological	
Non-pharmacological	

(v) With reference to the prop, name (or describe) this piece of equipment (1 mark)

i)

_____

(vi) List a clinical indication for its use (1 marks)

i)

_____

(vii) What estimated ambient temperature would you expect at the summit of this peak? (temperature at base camp is recorded as minus 10 degrees celcius) (1 mark)

i)

_____

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Question 24 (12 marks)

You have been asked to develop a policy on paediatric pulled elbow for your urban district Emergency Department

(i) List six (6) steps in development and implementation of a new policy for use in the Emergency Department (6 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

v)

_____

vi)

_____

(ii) State four (4) inclusion or exclusion criteria for a prospective policy for pulled elbow (i.e. the features consistent with a clinical diagnosis of pulled elbow) (4 marks)

i)

_____

ii)

_____

iii)

_____

iv)

_____

(iii) List two (2) key steps for the reduction of a pulled elbow to be carried out by nursing staff under the proposed policy (2 marks)

i)

_____

ii)

_____

Question 25 (10 marks)

A 7 year old male is brought into your Emergency Department via ambulance. He has fallen out of a tree whilst playing. He has no signs of injury apart from abrasions and tenderness across his upper abdomen. He is haemodynamically stable.

You perform a F.A.S.T. ultrasound scan and obtain the images shown.

(i) List three (3) of the four (4) views obtained on a standard F.A.S.T. (3 marks)

	F.A.S.T. View
Image 1	
Image 2	
Image 3	

(ii) Within the limits of the still pictures provided, state your interpretation of this FAST scan (shown in prop booklet) (1 mark)

i)

_____

(iii) List three (3) specific advantages and three (3) specific disadvantages to using FAST as a diagnostic tool in the Paediatric Trauma population (6 marks)

Advantages:

i)

ii)

iii)

Disadvantages:

i)

ii)

iii)

Question 26 (14 marks)

A 45 year old female presents to your Emergency Department by ambulance complaining of a severe headache that has been unresponsive to simple analgesia.

(i) List five (5) "*red flags*" on history that would make you concerned about a diagnosis of subarachnoid haemorrhage (SAH) (5 marks)

i)

ii)

iii)

iv)

v)

Based on your history and examination of this patient, you are concerned about a diagnosis of subarachnoid haemorrhage.

You decide that clinically they may require a lumbar puncture (LP).

(ii) Other than suspected subarachnoid haemorrhage, list four (4) other indications to perform a CT brain prior to LP (4 marks)

i)

ii)

iii)

iv)

(iii) List two (2) evidence based measures that you could take to reduce the likelihood of post-LP headache (2 marks)

i)

_____

ii)

_____

The patient is very reluctant to undergo a LP, as she is afraid of needles.

She asks why you cannot just perform a CT scan or MRI to rule out bleeding.

(iv) State one (1) reason why a CT angiogram (COW) does NOT negate the need for LP if there is a high index of suspicion for SAH (1 mark)

i)

_____

The patient subsequently consents for LP, and you successfully collect and send a sample of CSF to the lab for analysis.

(v) State two (2) CSF findings that essentially *"exclude"* SAH (2 marks)

i)

_____

ii)

_____

Question 27 (12 marks)

A 29 year old South African female presents with a 5 day history of painful, red raised lesions on her legs and general lethargy. The lesions are tender and she is otherwise well. She reports a non-specific recent flu like illness.

The patient takes thyroxine 100mcg daily, Salbutamol 2 puffs (inhaled) as required and Ethinyloestradiol/Drospirenone (3/0.02) 1 tab daily

She recently returned from a holiday in sub-saharan Africa.

A clinical photograph is reproduced in the prop booklet.

(i) Briefly provide a description of the characteristics of the rash shown in the clinical photograph (2 marks)

(ii) State the name of this rash (1 mark)

i)

(iii) List three (3) SPECIFIC causes to account for the rash shown (3 marks)

i)

ii)

iii)

(iv) List and justify two (2) investigations to diagnose the cause in ED (4 marks)

Investigation	Justification

(v) State two (2) steps in initial management of this condition (2 marks)

i) _____

ii) _____

END OF EXAM PAPER