



# UNIVERSITY OF NAIROBI

UNIVERSITY EXAMINATIONS 2016/2017

FIFTH YEAR EXAMINATIONS FOR THE DEGREE OF BACHELOR OF MEDICINE  
AND BACHELOR OF SURGERY

HME 500: MEDICINE – MCQ

DATE: MARCH 28, 2018

TIME: 2.00 P.M. – 3.30 P.M.

## INSTRUCTIONS:

1. There are 75 Multiple Choice Questions (MCQs) in this paper. Ensure that your paper has all the questions.
2. Each question has **ONE BEST ANSWER**.
3. There is no negative marking for incorrect responses.
4. No mark will be given if more than one answer is marked in a single question.
5. An answer sheet is provided where all your answers should be appropriately marked as per instructions.
6. The examination paper should be left in the examination room.

72. Which **ONE** of the following is a feature of multiple myeloma?
- (a) Normochromic normocytic anaemia
  - (b) Hypocalcaemia
  - (c) Contracted kidneys *Hyper:*
  - (d) Rugger jersey spine
  - (e) Hypokalaemia *hyperparathyroidism*

73. A 20 year old man presents with fever and yellowness of eyes following travel to Busia 3 weeks prior to this presentation. On examination, he is found to be confused, and febrile. Investigations reveal haemoglobin of 9 g/dL, platelet count of  $30 \times 10^9/\mu\text{L}$  and malaria parasitemia of 6%. Which one of the following is the **MOST APPROPRIATE** next step in his care?
- (a) Investigate for a hepatitis
  - (b) Start oral artemether
  - (c) Start IV artesunate
  - (d) Transfuse 2 units of packed cells
  - (e) Transfuse 3 units of platelets
74. In a patient with renal failure, which **ONE** of the following conditions is an indication for dialysis?
- (a) Anaemia with haemoglobin less than 9 g/dL
  - (b) Hypocalcaemia
  - (c) Hyperphosphatemia
  - (d) Hyperparathyroidism
  - (e) Presence of a pericardial rub

75. All of the following conditions have relevant family predisposition **EXCEPT**:
- (a) Psoriatic arthritis
  - (b) Nodal osteoarthritis
  - (c) Osteoporosis
  - (d) Gout
  - (e) Gonococcal arthritis

62. A 15 year old girl presents with skin lesions with skin lesions since infancy. She has lichenification with crusting and weeping lesions on neck, antecubital and popliteal fossae. The nails are shiny. All of the following are the associated clinical features **EXCEPT**:-
- (a) Asthma
  - (b) Allergic rhinitis
  - (c) Vitiligo
  - (d) Allergic conjunctivitis
  - (e) Cataracts

63. Which one of the following statements is **NOT TRUE** concerning chronic kidney disease?
- (a) Anaemia is common
  - (b) Prevalence of hypertension increases from stage 1 through to stage 5
  - (c) Glomerular filtration rate may fall by 60% before condition gives rise to symptoms
  - (d) The specific gravity of urine tends to be elevated
  - (e) Serum bicarbonate level tends to be low

64. A 40 year old female presents with a 2 week history a daily, global, throbbing headaches. There is no vomiting, no photophobia and no fever. Examination reveals papilloedema, BMI of 42 and a normal blood pressure. What is the **MOST LIKELY** diagnosis?
- (a) Brain tumour
  - (b) Cluster headache
  - (c) Normal pressure hydrocephalus
  - (d) Idiopathic intracranial hypertension
  - (e) Optic neuritis

65. A 68 year old man with chronic renal failure has serum potassium of 6.4 mmol/L. An ECG shows peaked T waves with widened QRS complexes. Which one of the following is **NOT indicated** in the initial treatment of this patient?
- (a) Intravenous calcium
  - (b) Intravenous glucose and insulin
  - (c) Dialysis
  - (d) Sodium polystyrene sulfonate
  - (e) Beta blockers

66. Which one of the following poisons/drugs is **CORRECTLY MATCHED** with its antidote?
- (a) Benzodiazepines - N-acetyl cysteine
  - (b) Methanol - Fomepizole
  - (c) Opiates - Pralidoxime
  - (d) Organophosphates - Flumazenil
  - (e) Paracetamol - Naloxone

35. A 28 year old man presents with a painless ulcer on the penile shaft. He has no dysuria or urethral discharge. What would be the **MOST APPROPRIATE** empiric therapy?
- (a) IV azithromycin
  - (b) Oral cefuroxime
  - (c) IV ceftriaxone
  - (d) IM Benzathine penicillin
  - (e) Oral ciprofloxacin

36. Nephrotic syndrome is a recognized complication of infection with all of the following **EXCEPT**:

- (a) *Schistosoma mansoni*
- (b) *Plasmodium malariae* ✓
- (c) *Trypanosoma brucei gambiense*
- (d) Hepatitis B virus ✓
- (e) *Mycobacterium leprae*

37. A 48 year old asthmatic woman has progressive weakness and amenorrhoea lately. She has noted change of body habitus with truncal obesity and hypertension. Her clinical features may be explained by all of the following **EXCEPT**:

- (a) Adrenocortical tumour ✓
- (b) Lung tumour
- (c) Pituitary tumour ✓
- (d) Prolonged steroid therapy ✓
- (e) Ovarian tumour ✓

38. A 24 year old woman presents with cold hands and feet. This has been ongoing for the past 3 months and is worse especially in the mornings, when she washes dishes with water and may last for several hours. All of the following conditions are associated with this presentation **EXCEPT**:

- (a) Fibromyalgia
- (b) Systemic sclerosis
- (c) Systemic lupus erythematosus
- (d) Sjogren's syndrome
- (e) Rheumatoid arthritis

39. Which of the following complications is **NOT** associated with increased incidence following renal transplantation?

- (a) Allergies ✓
- (b) Lymphoproliferative disorder
- (c) Infection ✓
- (d) Hypertension ✓
- (e) Malignancy ✓

30. All of the following cardiac lesions are associated with a high risk of infective endocarditis EXCEPT:
- (a) Combined mitral valve disease ✓
  - (b) Hypertrophic obstructive cardiomyopathy
  - (c) Mitral stenosis ✓
  - (d) Mitral valve prolapse with significant regurgitation on ECHO study ✓
  - (e) Ventricular septal defect ✓
31. A 17 year old girl presents with complaints of abdominal discomfort and diarrhea. Her stool exam reveals cysts and haematophagus trophozoites. Which one of the following is the **MOST APPROPRIATE** therapy for her condition?
- (a) Oral stat albendazole
  - (b) Oral cotrimoxazole for 7 days
  - (c) Oral cotrimoxazole and albendazole
  - (d) Oral metronidazole and diloxanide furoate
  - (e) Oral ciprofloxacin for 7 days
32. A 68 year old woman presents with acute onset right sided chest pain and shortness of breath 4 days after open reduction and internal fixation (ORIF) of a distal tibio-fibular fracture. She has a history of diabetes. There is no evidence of deep venous thrombosis and her serum creatinine is elevated. Which of the following tests is **MOST APPROPRIATE** to confirm the most likely diagnosis?
- (a) MRI of the chest
  - (b) D-dimer test
  - (c) Echocardiography
  - (d) Ventilation-perfusion (V/Q) scan
  - (e) CT angiogram of the chest
33. All of the following are indicators of potential secondary hypertension EXCEPT:
- (a) Hypertension in the young
  - (b) Hypertension accompanied by severe palpitations
  - (c) Isolated systolic hypertension
  - (d) New onset hypertension in old age
  - (e) Resistant hypertension
34. A 60 year old man reports recent onset of mild to moderate epigastric pain during the last few weeks. The pain is unrelated to meals and does not radiate. He has had some decrease in appetite but no nausea, vomiting, weight loss or dysphagia. He denies ingestion of any aspirin or non-steroidal anti-inflammatory drugs (NSAIDs). Physical examination findings are normal except for mild tenderness in the epigastrium. Which one of the following is the **MOST APPROPRIATE** initial diagnostic test?
- (a) Upper GIT endoscopy
  - (b) *Helicobacter pylori* stool antigen test
  - (c) Abdominal CT scan
  - (d) Barium meal, *no*
  - (e) Stool occult blood *+*

72. Which **ONE** of the following is a feature of multiple myeloma?
- (a) Normochromic normocytic anaemia
  - (b) Hypocalcemia
  - (c) Contracted kidneys *types:*
  - (d) Rugger jersey spine *hypoparathyroidism*
  - (e) Hypokalemia
73. A 20 year old man presents with fever and yellowness of eyes following travel to Busia 3 weeks prior to this presentation. On examination, he is found to be confused, and febrile. Investigations reveal haemoglobin of 9 g/dL, platelet count of  $30 \times 10^9/\mu\text{L}$  and malaria parasitemia of 6%. Which one of the following is the **MOST APPROPRIATE** next step in his care?
- (a) Investigate for a hepatitis
  - (b) Start oral artemether
  - (c) Start IV artesunate
  - (d) Transfuse 2 units of packed cells
  - (e) Transfuse 3 units of platelets
74. In a patient with renal failure, which **ONE** of the following conditions is an indication for dialysis?
- (a) Anaemia with haemoglobin less than 9 g/dL
  - (b) Hypocalcemia
  - (c) Hyperphosphatemia
  - (d) Hyperparathyroidism
  - (e) Presence of a pericardial rub
75. All of the following conditions have relevant family predisposition **EXCEPT**:
- (a) Psoriatic arthritis
  - (b) Nodal osteoarthritis
  - (c) Osteoporosis
  - (d) Gout
  - (e) Gonococcal arthritis

40. A patient who went for routine medical check-up was found to have the following:

- ✓ HBs Ag positive
- HBe Ab IgG positive
- ✓ HBe Ag negative (*+ in chronic, acute, resolved in form.*)
- ✓ HBV DNA 200 IU/ml
- Alanine aminotransferase (ALT) 15 IU/L

Which of the following **BEST** fits this clinical scenario?

- ✗ (a) Active chronic hepatitis B
- ✗ (b) Occult hepatitis B
- (c) **Inactive hepatitis B**
- (d) Post vaccination against hepatitis B
- ✗ (e) Acute hepatitis B

41. A 25 year old woman presents with generalized body swelling and a normal blood pressure. Her investigations show urine protein +++ (dipstick) Serum Na<sup>+</sup> 128 mmol/L, Serum protein 15 g/dL, K<sup>+</sup> 3.6 mmol/L, creatinine 89 μmol/L. Which one of the following statements concerning her presentation is **NOT TRUE**?

- (a) **Dialysis with ultrafiltration is required**
- (b) Hypercoagulability is expected
- (c) Susceptibility to infections is increased
- (d) Secondary hyperaldosteronism is a feature
- (e) Total serum cholesterol is expected to be raised

42. A 50 year old HIV man who has been on ARVs for the past 2 years now presents with a severe headache for the last 2 weeks. Clinical examination reveals wasting but not signs of meningeal irritation. CT scan head done is normal. Lumbar puncture done is positive for *Cryptococcus neoformans*. All the following statements regarding his management are true **EXCEPT**:

- (a) He is most likely to be failing his treatment
- (b) **His ARVs should be stopped immediately**
- (c) He should be started on Amphotericin B for 14 days
- (d) Concomitant fluconazole is indicated
- (e) Repeated lumbar puncture is indicated

43. All of the following conditions are associated with hirsutism **EXCEPT**:

- (a) **Addison's disease**
- (b) Congenital adrenal hyperplasia ✓
- (c) Familial states ✓
- (d) Polycystic ovarian syndrome ✓
- (e) Ovarian neoplasms ✓

1. Uncontrolled systemic arterial hypertension is risk factor for the development of all of the following EXCEPT:

- (a) Cerebro-vascular accident
- (b) Heart failure
- (c) Renal failure
- (d) Myocardial infarction
- (e) Obstructive sleep apnoea

2. All of the following drugs are correctly matched with their side effects EXCEPT:

- (a) Atenolol – bronchospasm ✓
- (b) Verapamil – leg oedema ✓
- (c) Losartan – hypokalaemia ✓
- (d) Enalapril – angio-oedema ✓
- (e) Simvastatin – rhabdomyolysis ✓

3. A 36 year old woman presents with 2 month history of stiff hands and wrists. The pain is worse in the morning and has affected her work as a dentist. On examination, the wrists, metacarpophalangeal and proximal interphalangeal joints are swollen and warm. Which one of the following investigations is MOST SPECIFIC for confirming the diagnosis?

- (a) Wrist/Hand x-rays
- (b) C-Reactive protein
- (c) Anti-nuclear antibody
- (d) Anti-citrullinated (anti-CCP) antibody levels
- (e) Anti-double stranded DNA (Anti-dsDNA) antibodies

4. A 50 year old man is admitted with weight loss, epistaxis and right upper quadrant pain. A nodular mass is palpated in the right upper quadrant. LFTs are deranged and the INR is

2.1. The following tests should be done immediately EXCEPT:

- (a) Abdominal ultrasound scan
- (b) Liver biopsy
- (c) HBs Ag
- (d) HCV Ab
- (e) Serum alpha-fetoprotein

5. Which ONE of the following conditions is associated with ST segment elevation in a resting ECG tracing

- (a) Angina
- (b) Acute myocardial infarction
- (c) Digoxin therapy
- (d) Left ventricular hypertrophy
- (e) Right ventricular hypertrophy



67. A 25 year old woman presents with gradual skin tightening involving the hands and face. She also has first degree heart block on ECG and reflux oesophagitis. Which one of the following statements is **TRUE** regarding this condition?
- (a) It is commoner in males compared to females
  - (b) It is easily amenable to treatment
  - (c) **Raynaud's phenomenon is an invariable feature**
  - (d) It has no renal manifestations
  - (e) It is usually an indolent disease
68. A 17 year old form 4 student presents with daily severe unilateral throbbing headaches over the last 2 weeks. She gets nauseated and is very sensitive to light and the sound of her phone. Her headaches last 4 hours and there is no eye reddening. Her optic discs are normal. All of the following drugs will reduce the frequency of her headaches **EXCEPT**:
- (a) Amitriptyline ✓
  - (b) Propranolol ✓
  - (c) Topiramate ✓
  - (d) **Tramadol**
  - (e) Sodium valproate ✓
69. Steroid therapy is indicated in the following oncological emergencies **EXCEPT**:-
- (a) Superior vena cava obstruction ✓
  - (b) **Hypercalcemia**
  - (c) **Severe neutropenic sepsis** ✓
  - (d) **Raised intracranial pressure**
  - (e) Spinal cord compression ✓
70. A 40 year old woman has had symptomatic uterine fibroids for the past 5 years. She presents with fatigue, listlessness and palpitations. She has pallor and koilonychia. Red cell indices show MCV 52 fl (Normal = 76 – 96 fl). Which one of the following statements is **TRUE** regarding her condition?
- (a) Total iron binding capacity is decreased ✗
  - (b) **Serum ferritin levels are decreased**
  - (c) Subacute degeneration of the cord is a known complication.
  - (d) Target cells are expected on peripheral blood film examination
  - (e) Thrombocytopenia is associated
71. Which of the following therapy is **MOST SUITABLE** for a 21 year old athlete who gets exercise induced bronchospasm each time he runs but is symptom free any other time?
- (a) Oral leukotriene antagonists
  - (b) Inhaled short-acting anticholinergics 15 minutes before exercise
  - (c) Daily inhaled long-acting  $\beta_2$ -agonists
  - (d) Daily inhaled glucocorticoids
  - (e) **Inhaled short-acting  $\beta_2$ -agonists before exercise**

44. A 58 year old man with HIV develops a vesicular eruption along the left side of the ribcage. The eruption is preceded by days of tingling and burning sensation. Which one of the statements is **TRUE** regarding the condition?

- (a) Corticosteroids should be started immediately
- (b) Early acyclovir reduces the duration of symptoms**
- (c) Previous *Herpes simplex* virus infection is associated with this presentation
- (d) Disappearance of the rash is associated with disappearance of symptoms in all the patients
- (e) Amitriptylline has no role in the management of this condition

45. A 30 year old woman attended the MOPC concerned that she might have hepatitis B, as her husband was recently diagnosed with the disease. On further questioning, she reported that her mother and sister both had hepatitis B. She was asymptomatic.

Investigations:

Serum total bilirubin 18 umol/L

ALT	34 u/L
AST	23 u/L
ALP	85 u/L
Albumin	39 g/L
HBs Ag	Negative
HBe Ag	Negative
Anti – HBs	Positive
Anti – HBc IgG	Positive
Anti – Hbe	Negative

What is the **MOST LIKELY** cause of the above hepatitis B serology?

- (a) Chronic hepatitis
- (b) Chronic hepatitis with pre-core mutant
- (c) Resolved infection**
- (d) Susceptible individual
- (e) Vaccinated

46. In the management of heart failure in the absence of atrial fibrillation, digoxin therapy is beneficial in:

- (a) Prolonging survival ✖
- (b) Reducing risk of atrial fibrillation development
- (c) Reducing risk of cardiogenic thromboembolism
- (d) Reducing risk of ventricular tachycardia occurrence
- (e) Reducing morbidity and hospital admissions**

26. A 30 year old man presents with 1 week history of painful swollen knees and painful right heel. Further history reveals that he has been experiencing burning pains while urinating in the previous 2 weeks and his eyes have become red and itchy. What is the MOST LIKELY diagnosis?
- (a) Gonococcal arthritis
  - (b) Septic arthritis
  - (c) Reactive arthritis
  - (d) Ankylosing spondylitis
  - (e) Enteropathic arthritis

27. All of the following are recommended drug combinations for the treatment of systemic arterial hypertension EXCEPT:

- (a) Thiazide diuretic plus angiotensin converting enzyme (ACE) inhibitor
- (b) ACE inhibitor plus calcium channel blocker
- (c) ACE inhibitor plus angiotensin receptor blocker
- (d) Calcium channel blocker plus thiazide diuretic
- (e) Calcium channel blocker plus beta blocker

28. A 65 year old man reports progressive unintentional weight loss of 20 kg (10% of body weight) during the past 12 months. He reports no dysphagia, nausea, vomiting or jaundice. His appetite remains good. He reports loose stools and excessive, foul-smelling flatus. He has a history of diabetes mellitus, for which he takes metformin and insulin. He has prior history of heavy ethanol use but has been abstinent for several years. Physical exam reveals a non-tender abdomen, liver and spleen are not enlarged and no palpable masses. Initial blood work including a complete blood count, electrolytes and liver chemistries are normal. Which one of the following is the MOST LIKELY cause of the patient's weight loss?

- (a) Colon cancer
- (b) Chronic pancreatitis
- (c) Diabetic gastroparesis
- (d) Metformin
- (e) Thyrotoxicosis

29. A 20 year old woman presents with a history of weakness. She is unable to rise from a chair. She recently developed a rash. All the following are true regarding this condition EXCEPT:

- (a) It is associated with high muscle enzymes ✓
- (b) It responds to corticosteroids ✓
- (c) The skin lesions are part of the syndrome ✓
- (d) Plasmapheresis is currently the treatment of choice
- (e) Arrhythmia is a known complication ✓

47.

A 20 year old obese young woman presents with blurring of vision. A CT scan done was normal. Fundoscopy reveals bilateral papilloedema. She has a mild lateral rectus weakness. All of the following statements regarding this condition are true **EXCEPT**:

- (a) It is associated with tetracycline use
- (b) May be associated with dural sinus thrombosis
- (c) Acetazolamide is the drug of choice
- (d) Major complication is blindness ✓
- (e) **This condition is more common in men**

48. A 28 year old woman presented to the hospital 1 week ago with severe and complicated malaria. She had a Foley catheter inserted on the day of admission. She now complains of suprapubic pain. A urine sample taken from the catheter reveals 4 WBCs and the culture grows *E. coli*. Which one of the following is **MOST APPROPRIATE** for her initial therapy?

- (a) Start ceftriaxone
- (b) Start gentamicin
- (c) **Remove catheter and offer no further therapy**
- (d) Start meropenem
- (e) Start nitrofurantoin

49. Lactulose aids in reducing hepatic encephalopathy. What is the mechanism for this?

- (a) Alkalinises the faeces ✗ *acidifies*
- (b) Acts as a barrier preventing ammonia absorption
- (c) Increased gut motility ✗
- (d) **Neutralisation and less absorption of ammonia ✗**
- (e) **Osmotic laxative**

50. You are evaluating a 26 year old male patient with newly diagnosed acute severe asthma in the emergency department. Life-threatening indicators of severe asthma in this patient would include all of the following **EXCEPT**:-

- (a) Confusion
- (b) Silent chest
- (c) Cyanosis
- (d) **Hypertension**
- (e) Peak expiratory flow rate <33% of predicted

51. A patient presents with diarrhea, confusion and necklace – like dermatitis around the neck. Which **ONE** of the following should be given to reverse the clinical picture?

- (a) Thiamine
- (b) Folic acid
- (c) Cyanocobalamin
- (d) Pyridoxine
- (e) **Niacin**

(b) CSF pressure is often due to an improperly placed needle

- (b) CSF pressure is best measured at the beginning and end of the procedure
- (c) CSF pressure is best measured in the sitting position
- (d) The axial plane of the iliac crests corresponds to L3/L4 interspace
- (e) Normal opening pressure in adults is 10-18 cm H<sub>2</sub>O

53. A 35 year old woman develops features of congestive heart failure at 38 weeks of gestation. She has no previous history or symptoms of heart disease and has had 3 uneventful pregnancies. Examination is significant for an elevated JVP, apex beat in the 6<sup>th</sup> intercostal space anterior axillary line and a 2/6 pan-systolic murmur at the apex. Which of the following is **NOT** a typical feature expected from her investigations?

- (a) A dilated left atrium
- (b) A dilated left ventricle
- (c) An elevated BNP
- (d) Features of right ventricular hypertrophy on ECG
- (e) A reduced ejection fraction

54. A 70 year old man is referred for dementia. The wife volunteers a history of incontinence of urine and a 'strange' walking style. The **MOST LIKELY** cause for the dementia is:

- (a) Alzheimer's dementia
- (b) Normal pressure hydrocephalus
- (c) Huntington's disease
- (d) Neurosyphilis
- (e) Vitamin B12 related dementia

55. Which of the following organisms is the **COMMONEST** cause of urinary tract infections among patients with diabetes mellitus?

- (a) *Candida spp.*
- (b) *Staphylococcal spp.*
- (c) *Escherichia coli*
- (d) *Enterococcus spp.*
- (e) *Klebsiella spp.*

56. Which **ONE** of the following scenarios is of a patient in septic shock?

- (a) A 65 year old man with left chest pain, BP of 80/40 mmHg with ECG showing features of ST elevation myocardial infarction (STEMI)
- (b) 52 year old man, day 2 post Whipple's surgery, BP 89/50 mmHg with 2-D echocardiogram showing new onset right atrial and right ventricular dilatation
- (c) 40 year old woman, previously normal with fever, cough and now presents to the emergency department with BP of 92/61 mmHg.
- (d) 40 year old woman with uncontrolled hypertension, now presenting with dysuria and frequency and BP of 100/50 mmHg
- (e) 30 year old man who was involved in a road traffic accident (RTA) with bilateral fracture of the femur and BP of 80/40 mmHg

A 19 year old student is admitted to the Psychiatric Unit with confusional state with visual and auditory hallucinations. While in the ward, he develops a seizure which started with abnormal smacking of the lips, picking on objects then generalized tonic chronic episode. What is the **MOST LIKELY** cause?

- (a) Cocaine use
- (b) *Cannabis sativa* overuse
- (c) Heroin overdose
- (d) *Herpes simplex* encephalitis
- (e) *Herpes zoster* encephalitis

17. A strict vegetarian presents with general malaise, exertional dyspnoea and pallor. Peripheral blood film shows segmented neutrophils and mean corpuscular volume (MCV) is 110 fl. Which one of the following statements is **TRUE**?

- (a) Gum hypertrophy occurs
- (b) Serum ferritin levels are low
- (c) Bone marrow Prussian blue stain is negative
- (d) Paraesthesias are common
- (e) Condition is invariably fatal

18. Which glomerular lesion is associated with nephrotic syndrome in HIV infection?

- (a) Amyloidosis
- (b) Crescentic nephropathy
- (c) IgA nephropathy
- (d) Minimal change disease
- (e) Focal segmental glomerulosclerosis

19. An 18 year old man from Gilgil presents with crusted lesion on the right cheek of 2 week duration. Which **ONE** of the following investigations should be performed as a priority to establish the diagnosis?

- (a) Anti-double stranded DNA
- (b) Complete blood count
- (c) Skin biopsy for Giemsa stain
- (d) Ziehl-Nielsen stain on skin biopsy
- (e) Potassium hydroxide (KOH) preparation

20. A 68 year old hypertensive presents with palpitations worsened by exertion. He has an irregular pulse confirmed by ECG to be atrial fibrillation. He is asymptomatic and has no other co-morbidities. Which one of the following statements concerning stroke prevention this patient is **TRUE**?

- (a) Aspirin is an appropriate choice.
- (b) He is low risk and doesn't require any treatment for stroke prevention
- (c) Combination of aspirin and clopidogrel is preferred
- (d) Warfarin is an appropriate choice
- (e) He needs a combination of an anticoagulant and aspirin

21. All of the following are features of a midbrain lesion EXCEPT:

- (a) Diplopia
- (b) Dysphagia
- (c) Hemiplegia
- (d) Oculomotor nerve palsy
- (e) Ptosis

22. A 42 year old man with cirrhosis related to hepatitis B and alcohol abuse has ascites requiring frequent large-volume paracentesis. All of the following therapies would be indicated for this patient EXCEPT:

- (a) Furosemide 40 mg daily
- (b) Fluid restriction to less than 2L daily
- (c) Spironolactone 100mg daily
- (d) Sodium restriction to less than 2gm daily
- (e) Transjugular intrahepatic portosystemic shunt (TIPS)

1.5L

23. A 28 year old woman is newly diagnosed to have HIV. She has a CD4 cell count of 80 cells/uL. She has had no cough, night sweats or weight loss but reports frequent headaches over the last 2 weeks. All of the following are appropriate steps in her care EXCEPT:

- (a) Start cotrimoxazole immediately ✓
- (b) Start isoniazid preventive therapy ✓
- (c) Do a lumbar puncture for CSF CRAG
- (d) Start anti-retroviral therapy immediately
- (e) Screen for sexually transmitted infections ✓

24. Which one of the following conditions is NOT a cause of acute tubular necrosis?

- (a) Hypotension ✓
- (b) Intravenous radio-contrast ✓
- (c) Sepsis
- (d) Benign prostatic hypertrophy
- (e) Hepatorenal syndrome

25. You are asked to review a 36-year old woman who has developed shortness of breath 5 hours after insertion of a right subclavian vein catheter. The blood pressure is 60 mmHg systolic and 40 mmHg diastolic. She is restless and diaphoretic. Examination of the chest reveals dullness to percussion and reduced breath sounds over the right hemithorax. Which one of the following is the MOST APPROPRIATE next step in her management?

- (a) Order an urgent portable CXR
- (b) Urgent CT-scan of the chest
- (c) Urgent large-bore thoracotomy tube
- (d) Needle decompression through the 2nd right intercostal space
- (e) Urgent surgical thoracotomy and exploration

57. A 16 year old healthy boy is involved in a gang fight and stabbed in the chest with a knife in the left midclavicular line. He is taken to the Emergency Department and on arrival his blood pressure is barely obtainable. His lungs are clear to auscultation. His heart sounds are barely audible. Which of the following is the **MOST LIKELY** acute condition that may explain his hemodynamic status and may lead to death?

- (a) Myocardial infarction
- (b) Myocardial contusion
- (c) Pericardial tamponade
- (d) Aortic dissection
- (e) Endocarditis

58. Which one of the following conditions is **NOT** a recognized cause of cardiogenic syncope?

- (a) Carotid body hypersensitivity
- (b) 1<sup>st</sup> degree heart block ✓
- (c) 3<sup>rd</sup> degree heart block ✓
- (d) Pulmonary thromboembolism
- (e) Ventricular tachyarrhythmia ✓

59. A 48 year old man presents with severe unilateral headache associated with redness of the eye. The pain is centred around the left orbit. The pain is very severe and constantly wakes him up at 3 a.m. The **MOST LIKELY** diagnosis is:-

- (a) Cluster headache
- (b) Hemisrania continua
- (c) Migraine
- (d) Temporal arteritis
- (e) Tension type headache

60. Renal failure associated with normal or increased kidney size is found in all the following conditions **EXCEPT**:

- (a) Amyloidosis
- (b) Diabetic nephropathy *CS.*
- (c) Obstructive uropathy
- (d) Polycystic kidney disease
- (e) Post-infectious chronic glomerulonephritis

61. A 46 year old woman is found to have fatigue of undue proportions. She has menorrhagia against her expectations. 5 years earlier, she was treated with radioactive iodine for Graves' disease. Which one of the following is the diagnostic **TEST OF CHOICE** to establish the diagnosis?

- (a) Serum thyroid-stimulating hormone (TSH)
- (b) Serum tri-iodothyronine (T<sub>3</sub>)
- (c) Thyrotrophin-releasing hormone (TRH) stimulating test
- (d) Thyroid ultrasound scan
- (e) Radio-active iodine uptake scan



16. A 19 year old student is admitted to the Psychiatric Unit with confusional state with visual and auditory hallucinations. While in the ward, he develops a seizure which started with abnormal smacking of the lips, picking on objects then generalized tonic chronic episode. What is the **MOST LIKELY** cause?
- (a) Cocaine use
  - (b) *Cannabis sativa* overuse
  - (c) Heroin overdose
  - (d) *Herpes simplex* encephalitis
  - (e) *Herpes zoster* encephalitis
17. A strict vegetarian presents with general malaise, exertional dyspnoea and pallor. Peripheral blood film shows segmented neutrophils and mean corpuscular volume (MCV) is 110 fl. Which one of the following statements is **TRUE**?
- (a) Gum hypertrophy occurs
  - (b) Serum ferritin levels are low
  - (c) Bone marrow Prussian blue stain is negative
  - (d) Paraesthesias are common
  - (e) Condition is invariably fatal
18. Which glomerular lesion is associated with nephrotic syndrome in HIV infection?
- (a) Amyloidosis
  - (b) Crescentic nephropathy
  - (c) IgA nephropathy
  - (d) Minimal change disease
  - (e) Focal segmental glomerulosclerosis
19. An 18 year old man from Gilgil presents with crusted lesion on the right cheek of 2 week duration. Which **ONE** of the following investigations should be performed as a priority to establish the diagnosis?
- (a) Anti-double stranded DNA
  - (b) Complete blood count
  - (c) Skin biopsy for Giemsa stain
  - (d) Ziehl-Nielsen stain on skin biopsy
  - (e) Potassium hydroxide (KOH) prepration
20. A 68 year old hypertensive presents with palpitations worsened by exertion. He has an irregular pulse confirmed by ECG to be atrial fibrillation. He is asymptomatic and has no other co-morbidities. Which one of the following statements concerning stroke prevention this patient is **TRUE**?
- (a) Aspirin is an appropriate choice.
  - (b) He is low risk and doesn't require any treatment for stroke prevention
  - (c) Combination of aspirin and clopidogrel is preferred
  - (d) Warfarin is an appropriate choice
  - (e) He needs a combination of an anticoagulant and aspirin

6  
A 40 year old woman is admitted to the hospital with sudden onset of weakness of the upper and lower limbs associated with incontinence of urine. She admits that 5 years ago she had visual loss of the right eye which improved. MRI (brain and spine) done showed normal brain but a long segment of what was described as demyelination. What is the **MOST LIKELY** diagnosis?

- (a) Behcet's disease
- (b) Lupus encephalitis
- (c) Multiple sclerosis
- (d) Neuromyelitis optica spectrum disorder
- (e) Sarcoidosis

*Multiple sclerosis*

7. A 45 year old woman with advanced HIV infection but ART naïve presents to casualty with complaints of watery diarrhea for the past 5 weeks. She has wasting, oral thrush and is afebrile and dehydrated. A modified Ziehl-Nielsen (ZN) stain on his stool specimen is positive. Which of one of the following statements regarding her management is **TRUE**?
- (a) Anti-tuberculous treatment should be started
  - (b) Oran vancomycin therapy should be started
  - (c) Anti-retroviral therapy is the definitive treatment for this condition
  - (d) Ivermectin is the definitive treatment for this condition
  - (e) Oral ciprofloxacin is the definitive treatment for this condition

8. A patient with first episode of unprovoked distal deep venous thrombosis (DVT) should be offered anticoagulation for a period of at least:
- (a) 1 month
  - (b) 3 months
  - (c) 8 months
  - (d) 12 months
  - (e) 18 months

9. Which one of the following statement is **MOST TRUE** regarding renal transplantation?
- (a) Patients with polycystic kidney disease are not transplantable
  - (b) HIV positivity is an absolute contraindication to kidney transplantation
  - (c) The quality of life improves following successful kidney transplantation
  - (d) Renal transplantation should be an option for all patients in end-stage renal failure
  - (e) Diabetics should always have kidneys and islet cell transplantation

10. A 56 year old man presents to the emergency department with 3 hours of retrosternal chest pain. He is not dyspnoeic. The pulse is 100 beats per minute and regular. The BP is 136/70 mm/Hg with SPO<sub>2</sub> of 92%. The ECG shows ST segment elevation in the inferior leads. Which one of the following statements is **NOT CORRECT** concerning the immediate steps in his management?
- (a) He should be given aspirin to chew
  - (b) Blood should be taken for troponin assay
  - (c) Thrombolytic therapy should await the result of the troponin
  - (d) Nitroglycerin can be given to relieve pain
  - (e) Morphine injection should be given if pain persists

11. A 40 year old man who was previously well presents with a 2 day history of cough and fever. On physical examination, he is found to be in severe respiratory distress; febrile and to have dullness and bronchial breathing on the left lower zone. You decide to admit him to the ICU. Which one of the following empiric therapy is **MOST APPROPRIATE**?

- (a) Meropenem
- (b) Cefazidime
- (c) Ceftriaxone plus gentamicin
- (d) Ceftriaxone plus clarithromycin
- (e) Amoxicillin/clavulanic acid plus metronidazole

12. All of the following are signs of raised intracranial pressure **EXCEPT**:

- (a) Bradycardia
- (b) Loss of hearing
- (c) Headache in the morning ✓
- (d) 6th cranial nerve palsy ✓
- (e) Papilloedema ✓

13. A 32 year old man presents with 1 day history of right knee pain. He also mentions a fever and malaise. On examination, the right knee is swollen warm and painful to move. What is the **MOST APPROPRIATE** next step?

- (a) Empirical intravenous antibiotic
- (b) X-ray right knee
- (c) Aspiration of the joint fluid for culture
- (d) Referral to physiotherapy
- (e) Immobilize the joint

14. A 28 year old woman presents with symptoms of frequent bowel movements, crampy abdominal pain and passage of mucoid bloody stool. Recently, she developed joint discomfort in her hands, knees and back. On examination, she is thin and her abdomen is soft with voluntary guarding in the left lower quadrant. Her joints are not actively inflamed but asymmetrically involved. Which one of the following is the **MOST**

**LIKELY** diagnosis?

- (a) Amoebic colitis
- (b) Amyloid infiltration
- (c) Crohn's disease
- (d) Ulcerative colitis
- (e) Lymphoma of the bowel

15. Which one of the following statements is **NOT TRUE** regarding human African trypanosomiasis? ✓

- (a) Progression of the disease is more rapid in rhodesiense than in gambiense ✓
- (b) Early diagnosis allows for a more effective, safer medication that can be used before the parasite reaches the brain ✓
- (c) Rhodesiense has multiple hosts while in gambiense, humans are the only hosts ✓
- (d) Epidemics of African sleeping sickness have occurred by person to person spread
- (e) Both rhodesiense and gambiense are transmitted by tsetse fly ✓