



UNIVERSITY OF NAIROBI

UNIVERSITY EXAMINATIONS 2015

FIFTH YEAR EXAMINATIONS FOR THE DEGREE OF BACHELOR OF MEDICINE
(BACHELOR OF SURGERY)

EMERGENCY MEDICINE (EM)

DATE: OCTOBER 29, 2015

TIME: 9:00 A.M. - 12:00 P.M.

INSTRUCTIONS:

1. There are 100 Multiple-Choice (MCQs) Questions in this paper. Ensure 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 instructed.
6. The examination paper should be left in the examination room.

1. All of the following statements regarding vitamins are true **EXCEPT**:
- A. Cholestasis is associated with Vitamin C deficiency
 - B. Vitamin A deficiency is associated with development of Bitot's spots.
 - C. Haemorrhage is a complication of vitamin K deficiency.
 - D. Vitamin E is an antioxidant
 - E. Vitamin D is fat soluble
2. An 80 year old man on a course of levofloxacin for pneumonia develops abdominal pain, fever and profuse diarrhoea. Which one of the following is an **APPROPRIATE** step in his management?
- A. Continue current antibiotic treatment
 - B. Initiate oral vancomycin
 - C. Initiate ceftriaxone
 - D. Initiate oral clindamycin
 - E. Initiate oral cotrimoxazole
3. 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 - Beriberi B₁
 - B. Folic acid
 - C. Cyanocobalamin - B₁₂
 - D. Pyridoxine - (B₆) - ind
 - E. Niacin B₃ - Pellagra
- Diarrhoea, dermatitis, dementia*
4. A young boy who has lived near Lake Baringo all his life has been unwell for 2 months with fever, weight loss and anaemia. Abdominal examination is significant for splenomegaly of 20 cm and hepatomegaly of 14cm. What is the **MOST** likely diagnosis?
- A. Disseminated tuberculosis
 - B. Hydatid disease
 - C. Schistosomiasis with portal hypertension
 - D. Visceral leishmaniasis
 - E. Chronic myeloid leukemia
5. Recognized precipitating factors for acute decompensated heart failure in predisposed individuals include all of the following **EXCEPT**:
- A. Acute rheumatic fever
 - B. Atrial fibrillation
 - C. Excessive physical exertion
 - D. Non-compliance with pharmaco-therapy
 - E. Upper respiratory tract infection
6. A 34 year old man with diabetes mellitus and hypertension comes for a check up. Urea, electrolytes and creatinine are normal. He has microalbuminuria of 120mg/24 hours. All of the following statements are true regarding appropriate measures to slow down progression of his renal disease **EXCEPT**:
- A. Aggressive control of hyperglycemia
 - B. Blood pressure target should be between 140/90 to 150/95 mmHg
 - C. Reduction of microalbuminuria
 - D. Smoking cessation
 - E. Angiotensin converting enzyme inhibitor (ACE I) therapy

7. A 15 year old asthmatic boy presents with history of recurrent skin lesions on neck, antecubital fossa and popliteal fossa since infancy. All of the following clinical signs are expected EXCEPT:

- A. Crusted lesions
- B. Lichenification
- C. Excoriation marks
- D. Purpura
- E. Weeping lesions

8. A young man admitted in moderate respiratory distress is found to have finger and toe clubbing. All of the following respiratory conditions associated with finger clubbing should be looked for in this patient EXCEPT:

- A. Empyema thoracis
- B. Pleural effusion
- C. Pulmonary fibrosis
- D. Mesothelioma
- E. Bronchogenic carcinoma

9. A 50 year old Kenyan man has progressive dysphagia. Examination reveals pallor and koilonychia. Which one of the following is the MOST likely cause?

- A. *Necator americanus* infestation
- B. Carcinoma of the oesophagus
- C. *Ancylostoma duodenale* infestation
- D. Bleeding oesophageal varices
- E. Dietary lack of green leafy vegetables

10. Which one of the following conditions is CORRECTLY matched with the diagnostic test of choice?

- A. Dermatomyositis - Serum creatinine kinase
- B. Gout - Weakly positively birefringent crystals
- C. Pseudogout - Negative birefringent crystals
- D. Rheumatoid arthritis - Anti-double stranded DNA antibodies
- E. Systemic lupus erythematosus - Anti - citrullinated cyclic peptides (CCP) antibodies

11. A 70 year old right handed man presents with a stroke involving the right middle cerebral artery territory. On exam, he has normal language with weakness of his left arm and face. What other abnormality are you MOST likely to find on further neurological evaluation?

- A. Aphasia
- B. Disorientation
- C. Hallucinations
- D. Neglect
- E. Somnolence

12. A 19 year old teenager has recurrent shoulder dislocation and is due for surgical repair. However, his blood pressure is found to be between 160/106 mmHg and 140/92 mmHg many times, but occasionally is normal. Urinalysis is normal. All of the following investigations are most useful EXCEPT:

- A. Abdominal CT scan ✓
- B. Brain CT scan ✓
- ~~C. Chest CT scan~~
- D. 24 hour urinary vanillyl-mandelic acid (VMA)
- E. Serum metanephrines

13. Which one of the following poisons/drugs is CORRECTLY matched with its antidote?

- A. Benzodiazepines - N-acetylcysteine
- ~~B. Methanol - Fomepizole~~
- C. Opiates - Pralidoxime ✓
- D. Organophosphates - Flumazenil ✓
- E. Paracetamol - Naloxone ✓

14. A 65 year old man presents with insidious onset of altered bowel habits. He also gives a history of recent bowel obstruction which was only relieved by an enema. Investigations revealed iron deficiency anaemia. Known predisposing factors for this condition include all of the following EXCEPT:

- A. Low fibre/high fat diet ✓
- ~~B. Esomeprazole use~~
- C. Obesity ✓
- D. Positive family history ✓
- E. Inflammatory bowel disease ✓

15. Which one of the following statements regarding schistosomiasis is TRUE?

- A. *Schistosoma mansoni* ovum has a terminal spine ✓
- B. Praziquantel is given as a deep intramuscular injection
- C. *Bulinus spp* is the intermediate host for *S. mansoni* ✓
- ~~D. A single dose of praziquantel is the treatment of choice~~
- E. Schistosomiasis is acquired from sea water ✓

16. Which one of the following ECG abnormalities is CORRECTLY matched with the corresponding clinical entity?

- A. Absent 'P' wave - Wolf-Parkinson-White syndrome
- B. Delta wave - Atrial fibrillation
- C. P pulmonale - Mitral valve disease
- D. P mitrale - Pulmonary hypertension ✓
- ~~E. Low QRS voltage - Hypothyroidism~~

17. You are managing a man with longstanding diabetes mellitus and hypertension. He has gradually developed oedema and anaemia. He recently developed hyperkalemia and acidosis as he approached end stage renal disease (ESRD). Which one of the following statement regarding the management of this patient is TRUE?

- ~~A. Alkali therapy can help treat the acidosis~~
- B. Target haematocrit value for erythropoietin therapy is 25%
- C. Pre-dialysis erythropoietin is not indicated ✓
- D. Constipation should be avoided because it can worsen hyperkalemia
- E. Strict blood pressure control is of no value at this stage ✓

done!

18. A 28 year old female presents with generalized erythema and scale for 2 weeks. All of the following skin functions are compromised in this patient EXCEPT:
- A. Protection from microbial invasion ✓
 - B. Protection from fluid and electrolyte loss ✓
 - ~~C. Sensory function~~
 - D. Thermoregulatory function ✓
 - E. Protein homeostasis ✓
19. A 41 year old man admitted for management of heart failure develops a cough, chest pain and fever after 1 week in the hospital. Which one of the following antibiotics is the BEST empiric choice?
- A. Amoxicillin - clavulanic acid
 - B. Clarithromycin
 - ~~C. Cefazidime~~
 - D. Cefuroxime
 - E. Flucloxacillin
20. 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 52fl (normal-76-96fl). 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 ✓
21. All of the following statements regarding low back pain are true EXCEPT:
- ~~A. Affect men and women equally~~
 - B. Most common between 30 and 50 years ✓
 - C. Affects 2/3 of adults ✓
 - ~~D. Majority persist beyond 6 months~~
 - E. Can be due to aortic aneurysm ✓
22. Which viral pathogen is associated with primary CNS lymphoma in immunocompromised patients?
- A. Cytomegalovirus (CMV)
 - ~~B. Epstein-Barr virus (EBV)~~
 - C. Enterovirus
 - D. Herpes simplex virus (HSV)
 - ~~E. JC virus - progressive multifocal leukoencephalopathy.~~
23. A 48 year old asthmatic woman lately has progressive weakness and amenorrhoea. 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~~

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

- HBsAg positive ✓
- HBcAb IgG positive ✓
- HBeAg negative ✓
- HBV DNA 200 Iu/mL
- Alanine aminotransferase (ALT) 15 Iu/L

Which of the following BEST fits the 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 ✓

25. A 30 year old man presents with severe right upper quadrant abdominal pain of 2 days duration. His examination is significant for an enlarged tender liver and right lower intercostal tenderness and a temperature of 40°C. The hemogram reveals leucocytosis. All of the following are true EXCEPT:

- A. Right pleural effusion is an expected finding ✓
- B. Congestive cardiac failure is an important differential diagnosis. ✓
- C. History of dysentery in the past is relevant ✓
- D. Examination of stool should be carried out ✓
- E. Chest radiograph will reveal useful information ✓

26. Complications of mitral stenosis include all of the following EXCEPT:

- A. Atrial fibrillation ✓
- B. Infective endocarditis ✓
- C. Right atrial thrombus ✓
- D. Right heart failure ✓
- E. Pulmonary hypertension ✓

27. All of the following infectious agents are well-matched with their common renal manifestations EXCEPT:

- A. HIV infection - Focal segmental glomerulosclerosis ✓
- B. *P. falciparum* - Nephrotic syndrome ✓
- C. Streptococcal infection - Acute nephritic syndrome ✓
- D. *S. haematobium* - Obstructive uropathy ✓
- E. *T. Pallidum* - Nephrotic syndrome ✓

28. A 20 year old man presents with widespread well marginated silvery scaly papules and plaques on an erythematous base. Auspitz sign is positive. Investigations should include all of the following EXCEPT:

- A. Urea, electrolytes and creatinine ✓
- B. Random blood glucose ✓
- C. Lipid profile ✓
- D. Potassium hydroxide (KOH) preparation ✓
- E. Liver function tests ✓

? **PSORIASIS**
Auspitz sign ✓
Lipid ✓
Glucose ✓
BP ✓

29. A 22 year old man presents to the emergency department with a 3 day history of fever, cough and pleuritic chest pain. His temperature is 39°C; pulse rate is 110 beats/min and respiratory rate is 26 breaths/min. Chest radiograph reveals an opacity in the right lower lung zone. Which one of the following is the MOST common cause of this condition?

- A. *Candida albicans*
- B. *Mycoplasma pneumoniae*
- C. *Pseudomonas aeruginosa*
- D. *Staphylococcus aureus*
- E. *Streptococcus pneumoniae*

30. A 16 year old girl has bilateral haemarthrosis of elbow joints. She has a fluctuant right knee that is tender. She has been bleeding from a venepuncture site for the past 24 hours. Which one of the following is the MOST likely diagnosis?

- A. Classical hemophilia
- B. Christmas disease
- C. Von Willebrand's disease
- D. Disseminated intravascular coagulation (DIC)
- E. Protein C deficiency

31. All of the following are common causes of carpal tunnel syndrome EXCEPT:

- A. Acromegaly
- B. Hyperthyroidism
- C. Pregnancy
- D. Osteoarthritis
- E. Rheumatoid arthritis

32. Which one of the following is NOT a risk factor for ischemic stroke

- A. Atrial fibrillation
- B. Berry aneurysms
- C. Carotid artery atherosclerosis
- D. Prosthetic heart valves
- E. Sickle cell disease

33. A 47 year old woman presents to the clinic with severe and progressive generalized bone pains for the past 3 years. Morning cortisol is 10ug/dl (Normal 5-25 ug/dl). Bone mineral density is -2.5SD. Serum proteins are normal including electrophoresis. The MOST likely diagnosis is:

- A. Osteomalacia
- B. Osteoporosis
- C. Osteonecrosis
- D. Osteopetrosis
- E. Multiple myeloma

34. A patient presents with bloody diarrhea and stool analysis revealed amoebic trophozoites. Which ONE of the following findings is seen in this condition?

- A. Diffuse colonic inflammation
 - B. Colonic ulcers with intervening normal mucosa
 - C. Many pus cells in stool
 - D. Crypt abscesses are seen at histology
 - E. Involvement of the terminal ileum is common
- X Keratinic colitis
X Colonic mucosa

35. A 25 year old woman is found to be HIV positive with a CD₄ count of 62 cells/ml. Which one of the following is NOT an appropriate step in her management?

- A. Initiate *Pneumocystis jirovecii* pneumonia (PJP) prophylaxis
- B. Do a serum cryptococcal antigen (CRAG) test
- C. Initiate *Mycobacterium avium* Complex (MAC) prophylaxis
- D. Screen for pulmonary tuberculosis
- E. Initiate antiretroviral therapy (ART)

36. A 45 year old man is seen by his family doctor for a minor ailment. He is found to have a BMI of 32kg/m² and a blood pressure (BP) of 152/95mmHg. A repeat BP measurement after 5 minutes is 149/91 mmHg. The rest of the examination is normal. Which of the following measures is NOT appropriate?

- A. Reducing dietary salt
- B. Starting pharmacologic therapy
- C. Aerobic exercises
- D. Relaxation therapy
- E. Increasing fruit and vegetable intake

37. In a patient with eGFR below 20ml/min, the following medications should be avoided EXCEPT:

- A. Amikacin
- B. Amoxicillin
- C. Diclofenac
- D. Spironolactone
- E. Metformin

38. The differential diagnosis for a grouped vesicular eruption include all of the following EXCEPT:

- A. *Herpes simplex*
- B. *Varicella zoster* eruption
- C. Herpes (pemphigoid) gestationis
- D. Dermatitis herpetiformis
- E. Pemphigus foliaceus

39. A 50 year old woman from Turkana County presents with proptosis of her left eye which is progressive. Examination of the abdomen reveals multiple masses. Which one of the following statements is TRUE regarding her condition?

- A. The most likely diagnosis is tuberculosis
- B. Burkitt's lymphoma is highly likely
- C. The proptosis and the abdominal finding are likely to be related
- D. Ultrasound guided needle aspiration of one of the abdominal masses is indicated
- E. Eating partially cooked meat could have contributed to the problem

40. A strict vegetarian presents with general malaise, exertional dyspnoea and pallor. Peripheral blood film shows segmented neutrophils and mean corpuscular volume (MCV) is 110fl. 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 invariable fatal

41. All of the following diseases present as inflammatory monoarthritis EXCEPT:
- A. Osteoarthritis
 - B. Septic arthritis
 - C. Lyme arthritis
 - D. Psoriatic arthritis
 - E. Rheumatoid arthritis
42. Which **ONE** of the following is a cause of a small pupil?
- A. Belladonna intoxication
 - B. Mid - brain haemorrhage
 - C. Occipital infarcts
 - D. Pontine haemorrhage
 - E. Posterior communicating artery aneurysm
43. A 45 year old alcoholic man is on standard treatment for pulmonary tuberculosis. Initially he responds well but in the 2nd week he develops progressive lethargy with blood pressure of 80/50mmHg. His most useful work up should include all of the following EXCEPT:
- A. Serum electrolytes
 - B. Fasting blood sugar
 - C. Blood cultures
 - D. 24 hour urine for cortisol metabolites
 - E. Serum osmolarity
44. A 25 year old man with liver cirrhosis was found to have grade 2 oesophageal varices at endoscopy. He has no past or current history of bleeding. Which one of the following interventions is **BEST** for prophylaxis against bleeding in this patient?
- A. Octreotide infusion
 - B. Highly selective shunt procedure
 - C. Sclerotherapy
 - D. Propranolol
 - E. Transjugular intrahepatic portosystemic shunt (TIPS)
45. A 58 year old diabetic man presents with right leg cellulitis with an ulcer. Which one of the following is **TRUE** regarding the most likely causative organism?
- A. *Enterococcus faecium*
 - B. *Bacteroides fragilis*
 - C. *Staphylococcus aureus*
 - D. Likely to be polymicrobial
 - E. *Streptococcus pyogenes*
46. A 45 year old alcoholic presents with 2 months history of exertional dyspnoea and pedal swelling. Physical examination reveals a blood pressure of 90/50mmHg and a difficult to trace displaced apex beat. All the following findings are expected in this condition EXCEPT:
- A. Increased heart rate
 - B. Peripheral vasoconstriction
 - C. Increased venous return
 - D. Decreased renal blood flow
 - E. Increased renal tubular sodium reabsorption

47. All of the following are commonly associated with acute tubular necrosis (ATN)

EXCEPT:

- A. Hypertension
- B. Rhabdomyolysis
- C. Haemolysis
- D. Radiocontrast agents
- E. ~~Plasmodium malariae~~ infection

48. 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

49. A 40 year old man is initiated on Rifampicin/Isoniazid/Pyrazinamide/Ethambutol (RHZE) for pulmonary tuberculosis. 2 weeks later, he is found to have an alanine aminotransferase (ALT) of 62 Iu/L (Normal upto 40 Iu/L) and aspartate amino transferase AST of 70 Iu/L (Normal upto 40 Iu/L). Which one of the following is TRUE of his condition?

- A. Steroids are indicated
- B. His treatment should be switched to a second line.
- C. ~~His treatment should be continued with monitoring of liver enzymes~~
- D. Isoniazid is the most likely cause
- E. His treatment should be stopped immediately

50. Which one of the following is TRUE regarding chronic myeloid leukemia (CML)

- A. It is almost exclusively a disease of children X
- B. ~~Leucocyte alkaline phosphatase (LAP) score is reduced~~ NAP
- C. Lymphadenopathy is common in the stable state X
- D. Autosplenectomy occurs X
- E. Spontaneous fractures tend to occur X

51. All of the following are clinical features of ankylosing EXCEPT:

- A. Low back pain ✓
- B. Limited chest expansion ✓
- C. ~~Symmetrical polyarthrits~~
- D. Sacroiliitis ✓
- E. Limited movement of the lumbar spine ✓

52. A 20 year old woman presents with severe unilateral throbbing headache accompanied by nausea, photophobia and phonophobia. All of the following are preventive strategies for this condition EXCEPT:

- A. Propranolol ✓
- B. Verapamil ✓
- C. Methysergide ✓
- D. ~~Triptans~~
- E. Topiramate ✓

53. Which one of the following statements regarding non-ketotic hyperosmolar state is TRUE?

- A. Sodium bicarbonate infusion is indicated
- B. Heparin should not be used
- C. Serum osmolality is over 390 mosm/litre
- D. Mortality is negligible
- E. Ketone breath is characteristic

54. A 45 year old man present with bleeding gums during dental care. The International normalized ratio (INR) was 3.0. He is not on any anticoagulant. All of the following conditions can cause this clinical picture EXCEPT:

- A. Tuberculosis of the terminal ileum
- B. Autoimmune cholangiopathy
- C. Drug induced acute hepatitis
- D. Coeliac disease involving predominantly the jejunum
- E. Primary sclerosing cholangitis

C 5-1-2 @
1-3 → neuropenic INR

55. A 46 year old woman with HIV and on Tenofovir/Lamivudine/Efavirenz for 4 years is found to have a CD4 count of 18 cells/ml and a viral load of 181,000 copies/ml. She has been adherent to her treatment. Which one of the following is an APPROPRIATE second line regimen for her?

- A. Abacavir/Lamivudine/Atazanavir
- B. Zidovudine/Lamivudine/Atazanavir
- C. Zidovudine/Lamivudine/Nevirapine
- D. Abacavir/Lamivudine/Lopinavir/Ritonavir
- E. Abacavir/Lamivudine/Nevirapine

A 2 T

56. All of the following are major criteria for diagnosis of rheumatic fever EXCEPT:

- A. Carditis
- B. Chorea
- C. Erythema marginatum
- D. Fever
- E. Polyarthritits

Polyarthritis
Erythema m
Chorea
Carditis
Sydenham's chorea

57. Which one of the following is the COMMONEST cause of acute kidney injury (AKI) in Kenya?

- A. Herbal ingestion
- B. Obstructive uropathy
- C. Radiocontrast associated injury
- D. Hypovolemia
- E. Aminoglycoside toxicity

58. A 24 year old man presents with a blistering disorder with erosions of 70% body surface area. Supportive care must include all the following EXCEPT:

- A. Barrier nursing
- B. Septic screen
- C. Neutral thermal environment
- D. Photoprotection
- E. Fluid and electrolyte replacement

59. A 65 year old man with 25 pack years of smoking presents with cough, weight loss and breathlessness. A chest radiograph shows a right apical homogeneous round opacity. All of the following findings are known to be associated with this presentation EXCEPT:
- A. Hyperpigmentation of the palms
 - B. Radicular pain to the right hand
 - ~~C. Hypocalcemia~~
 - D. Hoarseness of the voice haemoptysis
 - E. Haemoptysis
60. Which one of the following statements is TRUE regarding *Strongyloides stercoralis* infection?
- A. Albendazole is the drug of choice for treatment
 - ~~B. Ivermectin is the drug of choice for treatment~~
 - C. Diagnosis is by demonstration of characteristic eggs in stool ^{rarely}
 - D. Infection is acquired by ingestion of eggs ^{-rarely}
 - E. Autoinfection does not occur ^{x re. in p. 20}
61. 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 24 year old woman presents with sudden onset headache. This is the most severe headache she has had in her life. Examination reveals a stiff neck and normal temperature. Which one of the following investigations to establish the diagnosis would be the MOST cost effective?
- A. CT scan brain
 - B. MRI scan brain
 - C. 4-vessel angiogram
 - D. Transcranial Doppler ultrasound scan
 - ~~E. Lumbar puncture~~
63. 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
64. A 45 year old man presents with increasing fatigue over the last few months. He has also noticed that his face has darkened and he has joint pains. He reports reduced libido and increased thirst. On examination his facial skin appears dark grey and he has a hepatomegaly. What is the MOST likely diagnosis?
- A. Wilson's disease X
 - ~~B. Haemochromatosis~~
 - C. Alpha-1 antitrypsin deficiency
 - D. Autoimmune hepatitis
 - E. Primary sclerosing cholangitis

65. An elderly male from Bungoma presents with joint pains and melena stools. He is anemic. All of the following statements are true regarding his condition **EXCEPT**:
- A. He is likely to have iron deficiency anemia ✓
 - B. The problem could be related to the treatment he is getting for joint pains ✓
 - ~~C. Colonoscopy is indicated~~ ✓
 - D. The appearance of stools is unlikely to be due to haemorrhoids ✓
 - E. The abdomen should be examined carefully for splenomegaly - *felt js*
66. A 28 year old woman presents with sudden onset dyspnoea and hemoptysis. She delivered 3 weeks prior. The **MOST** likely diagnosis is? *myr*
- A. Acute lobar pneumonia
 - ~~B. Acute pulmonary embolism~~
 - C. Acute myocardial infarction
 - D. Acute asthmatic attack
 - E. Acute pulmonary oedema
67. Interventions that are associated with slowing progression of chronic kidney disease include all of the following **EXCEPT**:
- A. Effective blood pressure control
 - ~~B. Low potassium diet~~
 - C. Reducing proteinuria
 - D. Management of hyperphosphataemia
 - E. Amelioration of acidosis
- * 68. All of the following interventions are beneficial in the management of patients with chronic obstructive airway disease (COPD) **EXCEPT**:
- A. Pneumococcal vaccination ✓
 - B. Cessation of smoking ✓
 - C. Short acting bronchodilators ✓
 - ~~D. Inhaled anticholinergics~~
 - ~~E. High tension oxygen therapy~~ ✓
69. A 16 year old girl from Mombasa presents with fever, headache and abdominal pain. She had constipation initially but now has greenish loose stools. Her temperature is 39°C with a pulse rate of 86 beats/min. Which one of the following statements is **TRUE** regarding her condition?
- A. The most likely diagnosis is malaria
 - B. Abdominal ultrasound will show diagnostic features
 - ~~C. The most likely diagnosis is typhoid fever~~
 - D. Peripheral blood film will be diagnostic of the condition
 - E. Colonoscopy is indicated
- * 70. A 43 year old woman presents with symmetrical shoulder and limb girdle weakness with an elevated creatinine kinase level. Which one of the following is the **MOST** likely diagnosis?
- A. Inclusion body myositis
 - B. Giant cell myositis
 - ~~C. Dermatomyositis~~ ×
 - ~~D. Polymyalgia rheumatica~~
 - ~~E. Polymyositis~~
- f 70048 - shoulder & hip & distal*

71. Taste sensation from the anterior ²two thirds of the tongue is predominantly carried by:
- A. Trigeminal nerve
 - B. Glossopharyngeal nerve - post 1/3
 - C. Recurrent laryngeal branch of the vagus nerve
 - D. Superior laryngeal branch of the vagus nerve
 - ~~E. Chorda typani branch of the facial nerve~~
72. The following insulins/analogs are used in treatment of diabetic ketoacidosis EXCEPT:
- A. Lispro insulin
 - B. Regular insulin
 - C. Insulin aspart
 - D. Lente insulin
 - ~~E. Glulisine~~
73. All of the following conditions are associated with increased risk of cholelithiasis EXCEPT:
- A. Chronic hemolytic anaemia ✓
 - B. Female sex ✓
 - ~~C. High protein diet~~
 - D. Obesity ✓
 - E. Pregnancy ✓
74. The MOST appropriate initial treatment of severe malaria is:
- A. Loading dose of quinine as a bolus
 - ~~B. IV artesunate~~
 - C. IV quinine and clindamycin
 - D. IV arteether
 - E. IV quinine and dexamethasone
75. A 28 year old woman delivered 4 weeks ago after an uneventful pregnancy. She has progressive dyspnoea on exertion and easy fatigability. Examination is significant for pedal oedema, regular tachycardia, raised JVP and a third heart sound at the apex. Which of the following investigations is LEAST useful in her diagnostic work up? **OCM**
- A. Serum creatinine ✓
 - B. Liver enzymes ✓
 - C. Thyroid stimulating hormones (TSH) ✓
 - D. Lipid profile ✓
 - ~~E. Plasma B- Natriuretic peptide~~
76. Steroid resistant nephrotic syndrome is COMMONLY due to:
- A. Minimal change glomerulonephritis
 - ~~B. Focal segmental glomerulosclerosis (FSGS) (2)~~
 - C. Lupus nephritis
 - D. Membranous glomerulonephritis (1)
 - E. Membranoproliferative glomerulonephritis

77. A 58 year old man with chronic renal failure has a 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

78. A 35 year old woman has a breast lump that has developed over a period of 3 months to a size of 3x4 cm. It is not attached to the skin or underlying tissues. Which one of the following tests is LEAST appropriate in her evaluation?

- A. Core needle biopsy ✓
- B. Mammogram ✓
- C. Breast ultrasound scan ✓
- D. Chest radiograph
- E. Complete blood counts ✓

79. All of the following are expected clinical features in systemic sclerosis EXCEPT:

- A. Arthritis
- B. Pulmonary arterial hypertension
- C. Sicca syndrome
- D. Gastro-oesophageal reflux disease
- E. Acute kidney injury

80. A 38 year old female presents with a one month history of bilateral numbness of the lower limbs. Examination reveals reduced vibration sense and reduced ankle reflex. All of the following tests are useful in this patient EXCEPT:

- A. Serum sodium ✓
- B. Serum creatinine
- C. Thyroid stimulating hormone ✓
- D. Glycosylated haemoglobin ✓ D.M
- E. Haemoglobin level ✓ B.L

81. A 35 year old man on treatment for confirmed military tuberculosis is admitted due to worsening tiredness, lethargy and weight loss. He has dizziness on standing up. Examination reveals wasting, dehydration, hyperpigmentation involving the palms and buccal mucosa and postural hypotension. Which ONE of the following results is expected from his serum biochemistry?

- A. Hyponatremia
- B. Hyperkalemia
- C. Hyperglycemia
- D. Hypocalcemia
- E. Hypochloremic acidosis

82. A 40 year old cigarette smoker complains of burning epigastric pain that is well localized and non-radiating. The pain is partially relieved by eating. There is no weight loss. He has not used any non-steroidal anti-inflammatory agents. The pain has gradually worsened over several months. Which one of the following tests is MOST sensitive to make a specific diagnosis?
- A. Barium meal
 - B. Endoscopy
 - C. Serological test for *H. pylori*
 - D. Serum gastrin
 - E. Oesophageal pH monitoring
83. A usual resident of Kisumu presents with a massive splenomegaly and anaemia. All of the following should be considered in the differential diagnosis EXCEPT:
- A. Amyloidosis
 - B. Chronic myeloid leukemia
 - C. Hyperimmune malarial splenomegaly syndrome
 - D. Visceral leishmaniasis
 - E. Portal hypertension
84. 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
85. All of the following statements are true regarding acid base and electrolyte abnormalities in acute kidney injury (AKI) EXCEPT:
- A. Correct acidosis if bicarbonate is less than 15mmol/L
 - B. Hypocalcemia causes seizures
 - C. Hyperkalemia can be shifted with albuterol
 - D. 50% glucose is given in hyperkalemia to shift potassium intracellularly
 - E. Lactic acidosis type A has a grave prognosis
86. A 40 year old female from Busia has been unwell for 11 months. Examination reveals pallor and an enlarged spleen extending 8 cm below the costal margin. The full blood count reveals:
- Haemoglobin 5g/dl
 - MCV 85fl
 - WBC $6.5 \times 10^9/L$ with neutrophils 58%
 - Platelets $40 \times 10^9/L$
- Which one of the following tests is MOST appropriate to establish the diagnosis?
- A. Splenic biopsy
 - B. Bone marrow biopsy
 - C. Diagnostic/therapeutic splenectomy
 - D. Liver biopsy
 - E. Blood culture in Novy - MacNeal - Nicolle (NNN) medium

old age
 NOT osteoarthritis
 - hips
 - knee
 - spine
 - hands

87. A 35 year old man presenting with arthritis involving the left knee, right ankle and left metatarsal phalangeal joint. All of the following are likely diagnoses EXCEPT:

A. Reactive arthritis ✓
 B. Gouty arthritis ✓
 C. Psoriatic arthritis ✓
 D. Ankylosing spondylitis ✓
 E. Rheumatoid arthritis ✓

88. A 26 year old woman presents with a 2 week history of change in speech and tongue that deviates to the right on protrusion. Which cranial nerve is involved?

A. Right glossopharyngeal nerve
 B. Left glossopharyngeal nerve
 C. Right hypoglossal nerve ✓
 D. Left hypoglossal nerve
 E. Left vagal nerve

89. A 32 year old woman has a 3 year history of amenorrhoea. She also reports acne; increased body hair and voice deepening. On examination, she has frontal balding and clitoral hypertrophy. Urinary free cortisol is normal. Testosterone levels are elevated. 6nmol/L (Normal = $1-3\text{nmol/L}$). Ultrasound of the pelvis is normal. What is the MOST likely diagnosis?

A. Thyroid carcinoma
 B. Cushing's syndrome x (normal)
 C. Arrhenoblastoma ✓
 D. Polycystic ovary syndrome x polycystic 7/12 left?
 E. Granulosa theca cell tumour

90. A 30 year old known alcoholic presents with severe abdominal pain associated nausea and vomiting. The pain radiates to the back and serum lipase is found to be 400 Iu/L (Normal upto 300Iu/L). All of the following findings would indicate severe disease EXCEPT:

A. Marked increase in blood urea nitrogen (BUN)
 B. Cholelithiasis ✓
 C. Heart rate of 130 beats/minute
 D. Impaired mental status
 E. Respiratory rate of 34 beats/minute

91. A 55 year old man has history of retrosternal chest pain provoked by moderate physical activity. Which one of the following is NOT a risk factor for the condition?

A. A high waist hip ratio
 B. Low HDL cholesterol
 C. Sedentary lifestyle
 D. Exposure to second hand cigarette smoke
 E. Intake of two glasses of wine twice a week ✓

2000

gt M
1.04 x (140 - age) x wt
123

92. A 65 year old woman with type 2 diabetes mellitus for the past 12 years presents with a large septic right foot ulcer of 4 month duration. Her renal function reveals serum creatinine 496umol/L BUN-16mmol/L, BP is 156/102mmHg. The surgeon recommends an amputation. What is the MOST appropriate glucose lowering agent for this patient?
- A. Gliclazide
 - B. Glimepiride
 - C. Regular insulin
 - D. Gliptin
 - E. Metformin
93. A 25 year old man known to be HIV positive is also found to be HBsAg positive on routine screening. He has a CD4 count of 100 cells/ml and a HIV viral load of 560,000 copies/ml. Which one of the following HAART regimen would be the MOST suitable for him?
- A. Zidovudine/Lamivudine/Efavirenz
 - B. Zidovudine/Didanosine/Nevirapine
 - C. Tenofovir/Lamivudine/Efavirenz
 - D. Abacavir/Entricitabine/ Nevirapine
 - E. Abacavir/ Lamivudine/ Efavirenz
94. A 40 year old woman who is HIV positive but HAART naïve presents with 3 week history of cough, shortness of breath and fever. On exam she is found to be in respiratory distress, chest had normal vesicular breath sounds. A chest radiograph shows perihilar infiltrates and a blood gas analysis (BGA) is significant for an O₂ saturation of 70%. Which one of the following is the MOST appropriate initial therapy?
- A. Intravenous ceftriaxone
 - B. Intravenous meropenem
 - C. High-dose cotrimoxazole
 - D. Ceftriaxone and clarithromycin
 - E. Anti-tuberculous therapy
95. A 25 year old man has been on zidovudine, lamivudine and boosted lopinavir for the past 5 years. The commonest side effect of his treatment that raises his cardiovascular risk is:
- A. Dyslipidemia
 - B. Impaired glucose tolerance
 - C. Chronic kidney disease
 - D. Anemia
 - E. Chronic liver injury
96. 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 test of choice to establish the diagnosis?
- A. Serum thyroid-stimulating hormone (TSH)
 - B. Serum tri - iodothyronine (T₃)
 - C. Thyrotrophin-releasing hormone (TRH) stimulating test
 - D. Thyroid ultrasound scan
 - E. Radio-active iodine uptake scan

97. A 16 year old boy with sickle cell anaemia has been admitted for blood transfusion. This is the 6th episode requiring blood transfusion in the last 14 months. Which one of the following medicines will be **USEFUL** as an adjuvant during the blood transfusion?
- A. Sodium stibogluconate
 - B. Desferrioxamine
 - C. Pentamidine
 - D. Aluminium hydroxide
 - E. Allopurinol
98. A 34 year old woman is on follow up for rheumatic valvular heart disease and has been stable awaiting valve replacement. She now presents with worsening heart failure and general malaise for 2 weeks. Examination reveals mild pallor and finger clubbing. Which one of the following statements is **TRUE**?
- A. The anti-streptolysin 'O' titre is characteristically high in this condition
 - B. Definitive treatment should be withheld until blood for culture is withdrawn
 - C. Empiric treatment regimen should include vancomycin
 - D. Monthly long acting penicillin is useful in prophylaxis
 - E. Echocardiography is diagnostic
99. A 20 year old man presents with a history of headache, confusion, fever, nausea and vomiting. His white cell count is $20,000 \times 10^9/L$ with predominant neutrophils. The **MOST** important investigation in this patient to establish the diagnosis is?
- A. Blood culture
 - B. CT scan of the brain
 - C. Cerebrospinal fluid analysis
 - D. Urine microscopy, culture and sensitivity
 - E. Thick and thin blood slide for malaria
100. Which one of the following tumours is **CORRECTLY** matched with its tumour marker?
- A. Colorectal carcinoma ^{CEA} - α -fetoprotein
 - B. Choriocarcinoma ^{hCG} - Carcinoembryonic antigen (CEA)
 - C. Medullary thyroid carcinoma - CA125 ⁻²¹⁻²²³
 - D. Pancreatic carcinoma - Ca19-19 ^{or CA199}
 - E. Ovarian carcinoma - Human chorionic gonadotropin ^{CA-125}