KENYA MEDICAL TRAINING COLLEGE = EMBU

DEPARTMENT OF CLINICAL MEDICINE & SURGERY

EXAM: MEDICINE CAT CLASS: SEPTEMBER 2017

QUESTIONS

1. Kamau a 70-year-old man presents with generalized body swelling, difficulty in breathing, easy fatigability and denies exercises. On examination, he is sick looking uncomfortable when examined in supine position and has edema. He not pale but has elevated jugular venous pressure.
   a. What is the most probable diagnosis? [2mks]
   b. Outline the treatment for kamau [8mks]
2. Moni travelled from Kisumu to Mombasa 3 days ago in a bus. Today she presents with a swollen painful left leg. The left leg is swollen, warm and tender at the calf. Moni is 108 kg and her height is 1.5 meters. Other systems are normal.
   a. What is the most likely diagnosis [2mks]
   b. List 4 differential diagnosis [2mks]
   c. State two factors that precipitated her condition [2mks]
   d. Calculate Moni's BMI (body mass index) [3mks]
   e. State the specific investigation for the patient [1mrk]
3. A known hypertensive patient comes to medical outpatient clinic for routine follow up. You discover his blood pressure is 200/125mmHg.
   a. What is your diagnosis? [2mks]
   b. What are the important investigations will you order [4mks]
   c. Outline the treatment of this patient [8mks]
   d. Mention 6 possible complications in this patient [6mks]
4. Discuss complicated malaria under the following headlines
   a. Signs [4mks]
   b. Symptoms [4mks]
   c. Management [6mks]
   d. Complications [6mks]

KENYA MEDICAL TRAINING COLLEGE

FACULTY OF CLINICAL SCIENCES

DEPARTMENT OF CLINICAL MEDICINE – EMBU

DIPLOMA IN CLINCAL MEDICINE

2019/2020 ACADEMIC YEAR

Stream: September 2017 Class

Department: Clinical Medicine

Unit: Surgery and Orthopedics

Date: 6th February 2020

Time Allowed: 2 Hours

Session: Morning (9:00AM-1100PM)

General Instructions

1. Write your college registration number on all answer sheets used
2. Number all questions correctly
3. Use both sides of the answer papers
4. Use legible writings
5. Do not use a pencil Except for drawings
6. Ensure all your answer sheets are fastened
7. Answer all the questions

Section A: MCQs (50 marks) – Attempt All Questions

1. In physical examination of acute appendicitis the following is true

a) Rovsing's sign deep palpation of the right illiac fossa causes pain to shift to the left illiac fossa

b) psoas sign –right hip flexion worsen pain.

c) Obturator-spasm of obturator internus is sometimes demonstrable when the hip is flexed and internally rotated.
d) Dunphy's sign-pain in right lower quadrant is relieved by voluntary coughing.

2.Which one is correctly matched in Alvarado score

a) Tenderness RIF-2
b) Nausea and vomiting-2
c) Elevated temperature-1
d) Leucocytosis-1

3.Which one is not a complication of post appendicectomy

a) Incisional hernia
b) Fecal fistula
c) Recurrence
d) Wound infection

4.Which one is correctly matched inTNM staging for breast cancer

a) Tis-no evidence of primary tumor
b) To-no evidence of primary tumor
c) T2-tumor is more than 5cm in the greatest dimension
d) T3-tumor extends to the chest wall and skin

5.True about diabetic foot

a) Wagner class 3and4 is treated by amputation
b) Diabetics rarely get athrosclerosis
c) Loss of motor control inhibits thermoregulation and sweating
d) Intrinsic muscle wasting leads to claw toes

6.True about hemorrhoids

a) First degree hemorrhoids are asymptomatic
b) Second degree bleed but don't prolapsed
c) Third degree prolapsed but reduce spontenously
d) Fourth degree bleed with incarceration that cannot be reduced

7.All the following may predispose one to peptic ulcers EXCEPT

a) Chronic steroids use
b) Alcohol and smoking
c) Irradiation therapy
d) Vagotomy and drainage procedure

8.Which of the following is not a benign condition of the breast

a) Fibroadenoma
b) Paget's disease of the nipple
c) Galactocele
d) Macromastia

9.Fibroadenomas of the breast can be classified as follows EXCEPT

a) Epithelial eg.ductopapiloma
b) Connective eg.fibroma
c) Cartilage eg.chondroma
d) Mixed eg.fibroadenoma

10.Causes of scrotal pain include all the following EXCEPT

a) Hydrocele
b) Testicular torsion
c) Orchitis
d) Trauma

11.Blue dot sign is seen in

a) Orchitis
b) Hydrocele
c) Torsion of appendix testis
d) Spermatocele

12.In bladder outlet obstruction

a) Strictures account for 70percent of all cases in elderly male patients
b) Benign prostatic hyperplasia is the commonest cause in middle aged men
c) Obstructive symptoms are the earliest presentation of cancer of prostate
d) None of the above is true

13.In cancer of prostate

a) A PSA of 14ng/dl is acceptable
b) Cancer of the prostate uniformly arise from transitional zone
c) Organ confined disease can be treated by radical prostatectomy
d) None of the above is true

14.In benign prostatic hypertrophy

a) It uniformly arises from transitional zone

b) African American men have a lower prevalence rate than Asians
c) Hormonal abulation has a small role in ca prostate treatment
d) None of the above is true

15 Which one is not a factor in virchow's triad of deep venous thrombosis.

a) venous stasis.
b) Injury to vascular intima.
c) Hypercoagulability.
d) Leucocytosis.

16. In Glasgow coma scale which one is correcty matched.

a) In motor response 5 obeys command.
b) In motor response 3 flexion to pain.
c) In eye opening 2 opens to verbal command.
d) In verbal response 3 patient is confused.

17.Wich one is not a feature of primary hyperthyroidism.

a) increase in parathyroid hormone.
b) Increase in calcium
c) Decreased phosphate.
d) Dystrophic calcification.

18.Simple nipple inversion is seen in,

a) Ductal ectasis.
b) Puberty.
c) Periductal fibrosis.
d) Carcinoma of breast.

19.False about ingested foreign bodies,

a) Concervative management is done in most patients.
b) Sharp objects can cause perforation
c) Migratory motor complex plays a role in sweeping them to rectum
d) Laparatomy is always a requirement

20.First stage of healing in skin graft is

a) Revascularisation
b) Inosculation
c) Imbibition
d) None of the above

SHORT ANSWER QUESTIONS (40mks)

1. Outline the Glasgow coma scale [5mrks]
2. Outline the Alvarado scoring system in diagnosis appendicitis [5mrks]
3. Briefly discuss the pathophysiology of diabetic foot [5mrks]
4. Outline the irritative versus obstructive symptoms in bladder outlet obstruction [5mrks]
5. Outline the components of skin traction unit and indications of skin traction [5mrks]
6. Outline Cierny mader classification in osteomylitis [5mrks]
7. Briefly discuss the principles of fracture management [5mrks]
8. Outline the stages of wound healing [5mrks]

LONG ESSAY QUESTION (20mks)

1. John Njeru a 24yr old male came with a complaint of scrotal pain that was of sudden onset, he claims no history of trauma and he woke up at 3am due to pain. He denies history of haematuria.
   a) What is the most likely diagnosis [2mrks]
   b) What are the differentials [2mrks]
   c) What investigation will you carry out [6mrks]
   d) Discuss your clinical evaluation and definitive management of the above condition [10mrks]
2. Mr Murii is a 55 years old male who presented to Embu level 5 hospital with history of progressive dysphagia, odynophagia, marked loss of weight and history of alcohol consumption and smoking for the last 30 years.
   a) What is the most likely diagnosis (2mks)?
   b) Mention at least three (3) risk factors of the above-named condition (3mks)
   c) Mention five other clinical features the patient the patient is likely to present with (5mks)
   d) How would you investigate the patient to confirm the diagnosis (4mks)?
   e) Outline supportive and definitive treatment you would offer to Mr. Murii (6mks)

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KENYA MEDICAL TRAINING COLLEGE

FACULTY OF CLINICAL SCIENCES

DEPARTMENT OF CLINICAL MEDICINE – EMBU

2016/2017 ACADEMIC YEAR

Stream: September 2016 Class

Module: MEDICAL BIOCHEMISTRY PAPER I

Time Allowed: 2 ½ Hours

Session: Morning (08.30 – 11.00 hours)

DATE: Wednesday, 8th February 2017

Examiner: Dr. E. Mukami

GENERAL INSTRUCTIONS

1) Write you college registration number on all answer sheets used
2) Number all questions correctly
3) Begin each question on a new page
4) Use both sides of the answer papers
5) Use legible writings
6) Do not use a pencil except for drawings
7) Ensure all your answer sheets and fastened

SECTION A – SHORT ESSAY/STRUCTURED QUESTIONS – 60%

- This section contains **SIX questions**
- **ATTEMPT** all questions
- Be succinct (brief)

Questions

1) Discuss applications of biochemistry studies with regard to Biochemistry and diseases (10 marks)
2) With examples, explain the following Hydrogen chemical bond (10 marks)
3) Discuss the role of water in the human body (10 marks)

SECTION B– LONG ESSAY QUESTIONS – 40 marks

- This section contains **THREE** questions
- Attempt **ANY TWO** questions

Questions

1) Outline the different classes of enzymes that catalyze the various biochemical reactions in the human body (20 marks)
2) Discuss the functions of amino acids in living systems (20 marks)

SECTION C – MULTIPLE CHOICE QUESTIONS (MCQs) – 30%

- This section contains **fifteen (15) questions**
- Each question has four options
- There is **no penalty** for wrong responses
- **Answer the** questions on the answer sheet provided by marking "x" against the most correct response for each question as shown in the example below

Q1. Kenya is a unitary state with ..... government(s)

a) 1
b) 2
c) 48
d) 47

Q1	
a	
b	
c	X
d	

Questions

1) Which of the following is inorganic?
   a) Water
   b) Ascorbic acid
   c) Glycine
   d) All of the above

2) A chemical bond
   a) Is a strong force of attraction holding atoms together in a molecule or crystal.
   b) Is the tendency of an atom or a functional group to attract electrons towards itself
   c) Does not include electrostatic bonds
   d) All of the above

3) Which of the following is a cofactor during enzyme catalysis?
   a) FMN
   b) NAD+
   c) Zinc
   d) Tetrahydrofolate

4) Amino acids combine with each other through: -
   a) Glycosidic bonds
   b) Esteric bonds
   c) Peptide bonds
   d) A and C are both correct

5) The major cation in extracellular fluid i:
   a) Cl-
   b) Ca 2+
   c) Na+
   d) Fe2+

6) The following is a covalent bond type: -
   a) Triple bond
   b) Electrostatic bond
   c) Hydrophobic interaction
   d) Hydrogen bond

7) The following amino acid is acidic and negatively charged at physiological pH: -
   a) Glycine
   b) Cysteine
   c) Glutamate
   d) Tyrosine

8) The major anion in extracellular fluid is
   a) Chloride
   b) Bicarbonate
   c) Sulphate
   d) Phosphate

9) The smallest known amino acid is
   a) Alanine
   b) Tyrosine
   c) Tryptophan
   d) Glycine

10) Which of the following vitamins is fat-soluble?
   a) Niacin
   b) Alpha-tocopherol
   c) Ascorbic acid
   d) Thiamine

11) Amino acids can be differentiated from each other by the structure of their: -
   a) Carboxyl group
   b) Amino group
   c) R-group or side chain.
   d) Hydrogen group

12) Which of the following amino acids is basic and positively charged at physiological pH?
   a) Histidine
   b) Phenylalanine
   c) Valine
   d) Isoleucine

13) Pantothenic acid is also referred to as:
   a) Pyridoxine
   b) Coenzyme A
   c) Acetylcholine
   d) Vitamin D

14) The alpha carbon of the following amino acids is chiral except for: -
   a) Glycine
   b) Histidine
   c) Serine
   d) Cysteine

3) Intracellular Ca2+
- a) regulates secretions of parathyroid hormone and calcitonin
- b) is important in cell coagulation pathways as a cofactor
- c) is involved in the maintenance of body pH
- d) has a role in proper bone formation
- e) has no role in neurotransmitter release from neurons

4) Sodium
- a) assists with regulation of acid-base balance by combining with chloride or bicarbonate ions
- b) Accounts for nearly 50% of plasma osmolality hence central in maintenance of normal water distribution and osmotic pressure.
- c) Reabsorption in the kidneys is regulated by Aldosterone.
- d) Hypernatremia occurs with excessive loss of water or dehydration
- e) All of the above is true

5) The following elements are found in living organisms in trace amounts:
- a) Iron
- b) Cobalt
- c) Potassium
- d) Magnesium
- e) Iodine

6) The following are the major classes of biomolecules
- a) Carbohydrates
- b) Nucleic acids
- c) Proteins
- d) Lipids
- e) All of the above

7) Water
- a) Influences non-covalent interactions among biomolecules, through hydrogen bonding
- b) Is a reactant or a product in many metabolic reactions because it is an excellent electrophile
- c) Is the predominant chemical component of living organisms
- d) Regulation of water balance depends upon hypothalamic mechanisms that control thirst.
- e) All of the above are true

8) Abnormal loss of electrolytes results from:
a) Vomiting
b) Diarrheal
c) Profuse sweating
d) Moderate to severe burns
e) All of the above

9) About Potassium
a) Is the major intracellular cation
b) The K+ filtered by the glomeruli is almost all reabsorbed in the PCT of the nephron.
c) It promotes conduction and transmission of nerve impulses
d) Levels of more than 10mmol/L are lethal
e) All of the above are true

10) Enzymes:-
a) are classified on the basis of the reactions they catalyze
b) are highly efficient, generally enhancing the rates of chemical reactions by factors of 1000 to 1,000,000 or more.
c) The active site of an enzyme contains amino acid chains that create a three-dimensional surface complementary to the substrate.
d) Some enzymes require metal ions such as Ca^{2+}, K^{+}, Mg^{2+}, Fe^{2+}, Cu^{2+}, Zn^{2+}, Mn^{2+}, Co^{2+} for their activity.
e) Are highly specific for the type of reaction they catalyse as well as the substrate to which they bind.

11) About vitamins
a) Vitamin E is an important antioxidant in the body.
b) Vitamin K is obtained largely from gut microorganisms.
c) Vitamin B12 is a constituent of FAD and FMN coenzymes
d) Deficiency of thiamine leads to pellagra
e) Deficiency of folic acid leads to anaemia and neural tube defects in developing embryos

12) The basic structure of an amino acid consists of an alpha carbon attached to:-
a) a hydrogen
b) a carboxyl group
c) An amino group
d) R-group which is a side chain containing C, H, S, O and N atoms in various combinations and structural arrangements
e) All of the above

13) Essential amino acids that must be obtained from the diet include:-

a) Histidine
b) Phenylalanine
c) Glutamate
d) Glycine
e) Tryptophan

14) Amino acids

a) Form the monomer units from which peptides and long polypeptide chains are synthesized in the body
b) Biological systems only synthesize and use L-amino acids.
c) Form the monomer units for peptides that function as hormones, hormone releasing factors, neurotransmitters in the neuroendocrine system of the body
d) Tyrosine is used in the synthesis of thyroid hormones
e) Phenylalanine is a precursor of epinephrine, norepinephrine

15) About vitamin A:-

a) the precursors are called carotenes
b) the stereoisomer involved in visual process is 11-cis Retinal
c) Retinoic acid isomer is active as an antioxidant
d) Deficiency causes scurvy
e) Retinol isomer has a role in reproduction.

KENYA MEDICAL TRAINING COLLEGE – EMBU
DEPARTMENT OF CLINICAL MEDICINE & SURGERY

PROMOTION EXAMINATIONS 2015/2016

SEPTEMBER 2015 CLASS

BEHAVIOR SCIENCE

DATE: 12TH JULY 2016 **TIME: 2 HOURS**

INSTRUCTIONS

a. Read and understand all questions before you start.
b. **Any cancellations must be clear, unclear response will not be awarded marks**
c. **Mark 'X'** if **true** against the response or **'X'** if the answer is **false** on the answer sheet provided.
d. Write student number on all papers used.
e. Answer all the questions.
f. Write with legible hand writing.
g. Use a pen to answer questions; don't use a pencil unless instructed.

SECTION A: 15 MARKS (MCQs)

1.Modelling:

a. Is a form of learning that occurs when two stimuli that are 'paired- presented together',become associated with each other
b. Is observational form of learning
c. Occurs when a behavior is determined by the consequences for the individual
d. Refers to knowledge people have about their own thought processes
e. Refers to sensory memory

2. With regard to counseling the best statement is:

a. It is about giving the best possible advice
b. It is not an ordinary every day conversation
c. It involves empathy and compassion
d. It is a technique to help people help themselves by increasing self understanding
e. All of the above

3. Little Brendan has recurrent allergies and must receive injections to counteract them. He became fearful and cried whenever he got those injections but now just the sight of a nurse makes him fearful and tearful. What is the conditioned stimulus in this example?

a. Injections
b. Nurse
c. Doctors
d. White coats
e. Allergies

4. A father scolds his son when he hits his little sister. The son stops' hitting the little sister.This change in child's behavior is as a result of:

a. Punishment
b. Negative reinforcement
c. Positive reinforcement
d. Shaping
e. Classical conditioning

5. A 25year old doctor brings his 52 year old father to casualty department after he was involved in a road traffic accident and suffered serious injuries. Incidentally the surgeon arrives late to examine the patient. By the time he arrived to examine the patient, he had already gone to a state of unconsciousness with failing breathing. All resuscitative measures failed and the patient died. At that time, the son felt the shock but immediately adopted a posture that surprised everybody. He insisted that his father should be taken to the intensive care and put on a ventilator because he was in fact not "really dead".The phenomenon which best describe the clinical scenario is:

a. Rationalization
b. Denial
c. Regression
d. Displacement
e. Sublimation

6. Defense mechanisms:

a. Emerge randomly
b. Help individuals cope with their internal and external states of anxiety and distress
c. Cannot be brought under conscious control to ward off anxiety
d. Operate to maintain a sense of serenity
e. Do not contribute towards formation of personality traits

7. Structuralism emphasizes:

a. The influence of the conscious
b. Individual differences
c. Biological principles
d. Importance of environment in learning
e. Importance of nature in learning

8. What do you call research that records behavior in its actual setting without controlling anything?

a. Correlation method
b. Survey research
c. Psychometrics
d. Naturalistic observation
e. Questionnaire method

9. If a scientist tried to analyze your social life based on the behavioral perspective, the analysis would focus on:

a) Your thoughts and other mental processes.
b) The electrical activity of your brain cells.
c) Your unconscious motivations for the social interactions.
d) The people you interact with and your responses to them.
e) All of the above

10. An unconditioned stimulus is one that:

a. Produces no automatic response from the learner before conditioning takes place.
b. Is produced by an unconditioned response.
c. An organism will respond to automatically before conditioning takes place.
d. Produces a conditioned response after conditioning has taken place.
e. None of the above

11. Learning can be defined as:

a. A change in behavior.
b. An observable change in behavior resulting from experiences in the environment.
c. A relatively permanent change in behavior resulting from experience.
d. The relatively permanent acquisition of information through study.
e. All of the above

12. Although there may be different types of memory systems, each system utilizes the three basic stages of:

a) Working store, consolidation, and long-term store.
b) Acquisition, consolidation, and forgetting.
c) Storage, remembering, and forgetting.
d) Encoding, storage, and retrieval.
e) Long term, short term and working memory

13. Which period of development is characterized by establishing independence, developing an identity, and thinking more abstractly?

a. Middle childhood
b. Late childhood
c. Adolescence
d. Early adulthood
e. Old age

14. Clinical medicine students at Embu are learning about the psychoanalytic perspective and understand that there are three parts of a personality. According to Freud, they are:

a) Libido,ego,id
b) Unconscious,conscious,superego
c) Ego,superego,subego
d) Id,ego,superego

15. Which statement BEST resolves nature-nurture controversy?

a) Nature is clearly more important in development
b) The interaction between nature and nurture is most important in development
c) Nurture is clearly more important in development
d) Neither plays a particularly strong role in development

SECTION B: 75 TRUE(X) OR FALSE(X)

1. Qualities of a good counselor do not include:

a) Knowledgeable (in subject) F
b) Good listener and judgmental T
c) Sensitive F
d) Analyzer F
e) Does not give false promises F

2. Which of the following are true universal functions of the family?

a) Socialization of the young
b) Ascription of status
c) Reproduction
d) Economic provision for dependants
e) Provision of intimacy, companionship and belongingness

3. The following is false about sociology:

a) It explores the reasons why people behave the way they do
b) It is the study of human social interactions
c) It takes into consideration the evolution of mankind
d) It looks for patterned social regularities in human behavior
e) Industrial sociology is among its branches

4. Respond to the following statement;

a) The capacity of short term memory is believed to be unlimited
b) Counseling is not giving advice T
c) Counseling does not involve looking at client's problems from your own perspective T
d) Latent learning is where a new behavior is learned but not demonstrated until reinforcement is provided for displaying it.
e) Latent learning is a behaviorist theory

5. During the stage of generativity vs. stagnation, people do which of the following:

a) Succeed or fail to love others
b) Withdraw inwardly and focus on their problems or reach out to help others
c) Review their lives with either a sense of satisfaction or with despair
d) Take on new hobbies and develop new interests or reduce their number of social engagements
e) All of above

6. Modern perspectives of studying psychology:

a) Cognitive perspective T
b) Biological perspective T
c) Psychodynamic perspective T
d) Gestalt perspective F
e) Functionalism perspective F

7. Respond to the following statements

a) Polygyny marriage of one woman to several men F
b) Polyandry marriage of one man to several women F
c) Exogamy this is the practice of marrying outside one's group T
d) Endogamy this is the practice of marrying within one's group e.g. within one's race T
e) Monogamy and polygamy are forms of marriage T

8. Below are forms of religions <u>except:</u>

a) Islam T
b) Judaism
c) Hinduism T
d) Buddhism T
e) Sikhism

9. About religion:

a) Is the "opium of masses or people" according to max Weber
b) The key function of religion is institutionalization of norms (Laws).
c) Religion serves as an instrument of socialization.
d) Religion may both promote and retard social change.
e) Religion may both reduce and encourage conflict in groups.

10. Concerning types of government:

a) Authoritarianism is a political system that allows citizens to participate fully in government. F
b) Authoritarianism and totalitarianism are totally distinct types of government T
c) Kenya is an example of totalitarianism type of government
d) Monarchy is the best type of government
e) Only A and B are correct F

11. Major functions of a family institution include:

a) Socialization which deals with care and training of children.
b) Primary group satisfaction
c) To support the normative structure of the society.
d) Supplying a means for controlling the natural world.
e) Play a great role in transmission of knowledge, skills, and values from one individual to another.

12. Respond to the following statement concerning growth and development

a) Embryonic stage begins from conception to the end of the second week or until implantation and it generally lasts 8-14 days.
b) During the phallic stage, sensitivity now becomes concentrated in the genitals and masturbation in both sexes becomes a new source of pleasure.
c) Psychosexual stages of development were proposed by Erik Erikson
d) Psychosocial stages of development were proposed by Sigmund Freud
e) Germinal stage is from the beginning of the 3rd week through to the end of the 8th week. It is the period in which virtually all the organs of the body form and the heart begins to beat.

13. Characteristics of typical introverts include:

a) Assertive F
b) Aggressive F
c) Reserved T
d) Talkative F
e) Slow decision makers T

14. Traditional methods of personality assessment include the following <u>except</u>:

a) Q-Sort techniques T

b) Graphology F
c) Astrology F
d) Physiognomy F
e) psychobiography T

15. On defense mechanisms:

a) Displacement is a situation when an individual consciously feels or thinks the very opposite of what he or she consciously feels or thinks.

b) Sublimation is a form of displacement where a substitute activity is found to express an unacceptable impulse.

c) Projection involves attributing ones unwanted feelings and characteristics to someone else. It is the reverse of identification.

d) Reaction formation is a tendency to choose a substitute object for the expression of one's feeling because one cannot express them directly to the real target.

e) Regression is a tendency to force a dangerous, lifethreatening memory, idea, feelings, and wishes out of the conscious to the unconscious part of the mind.

KENYA MEDICAL TRAINING COLLEGE – EMBU

DEPARTMENT OF CLINICAL MEDICINE & SURGERY

SEPTEMBER 2013

PAPER II: MEDICINE

INSTRUCTIONS

1. *READ THE QUESTIONS CAREFULLY*
2. *WRITE YOUR COLLEGE NUMBER ON ANSWER SHEET*
3. *PAPER TWO HAS TWO SECTIONS. SECTION A IS TRUE/ FALSE WHILE SECTION B, ONLY ONE ANSWER IS CORRECT.*
4. *SECTION A NEGATIVE MARKING IS APPLIED WHILE SECTION B NO NEGATIVE MARKING*
5. *ALL CANCELLATIONS MUST BE CLEAN AND COMPLETE*
6. *ANSWER GENERAL SURGERY AND ORTHOPEDIC SEPARATELY FOR EACH LECTURER*

SECTION A – TRUE/FALSE

1. Major manifestations of Jones criteria in diagnosis of rheumatic fever includes

a. Carditis T
b. Chorea T
c. Migratory poly arthritis T
d. Erythm marginatum T
e. Fever F

2. The following are the main reasons for altering a patients ARV drug regimen

T a. Pregnancy
T b. Drug interations
T c. Treatment failure
F d. Minor drug toxicity
e. Interruption of drug

3. A 24 year old woman has been on TB treatment for 3 months. Recently she tested positive for HIV test. She needs

a. Pregnancy test
b. CD4 count T
c. Total lymphocyte count T
d. Renal profile tests T
e. Contrimoxozole therapy

4. Signs and symptoms of infective endocarditis includes;

a. Weight loss T
b. Night sweats F
c. Conjuctival haemorrhage T
d. Cough F
e. Jane ways lesions T

5. **Bronchial asthma triggers include**
   a. Smoking T
   b. Injections F
   c. Drugs T
   d. Emotional stress T
   e. Acid reflux

6. **Pulmonary tuberculosis**
   a. Major diagnostic test is tuberculin skin test
   b. They present with drenching night sweats T
   c. Chronic cough for more than two weeks is significant T
   d. Treatment for a new case takes 8 months F
   e. The treatment takes at least nine months F

7. **The following are classes of antihypertensive** 2 of 4
   a. Diuretics e.g. Lasix F
   b. Beta blockers T
   c. Angiotension converting enzymes inhibitors T
   d. Direct vasodilators T
   e. Calcium channel blockers T

HP - Headach
IS - Irritable/sweat
T - Tachycard.
I Irrahbilit
R restlessn
E Excessive hung
D - Dizzines

8. **The following parasitic infections are associated with AIDS**
   a. Cryptococcal meningitis T
   b. Hitoplasmosis T
   c. Herpes zoster T
   d. Pneumocystic caranii pheumonia T
   e. Toxoplasmosis T

9. **Features of iron deficiency anaemia include**
   a. Brittle nails
   b. Megaloblastic cells T
   c. Koilonychias
   d. Bleeding tendencies T
   e. Glossitis T

10. **The following are associated with hypoglyceamia in a diabetic patient**
   a. History of injection with insulin F
   b. Non compliance in taking diabetic drugs F
   c. Polyuria F
   d. Sweating T
   e. Low blood pressure P

11. **Causes of aplastic anaemia (bone marrow failure) include**
   a. Chloromphenical
   b. Chronic liver disease
   c. Irradiation
   d. Hookworm infestation T
   e. Zidovudine

12. **Which of the following is the most common symptom of peptic ulcer disease**
   a. Epigastric pain T
   b. Nausea
   c. Diarrhea
   d. Anorexia T
   e. Mid back pain

3. Peptic ulcers may be associated with

a. Long term prednisolome therapy T
b. Heavy alcohol intake T
c. Helicobector pylori bacteria T
d. Blood group O
e. Excessive stress

14. Which of the following medication is used in herpes zoster management

a. Oral analgesics T
b. Topical antivirals T
c. Systemic antivirals T
d. Corticosteorids
e. Broad spectrum antibiotics T

15. Concerning malaria

a. Rapid diagnostic test detect plasmodium falciparum T
b. Al is the 1st line treatment T
c. Quinine can be administered intramuscular F
d. Severe anaemia is possible complication T
e. Hypoglyceamia can a possible complication T

SECTION B: MCQS

1. Which of the following regime for a new TB case (adult)

a. 2 RHZ/4RHE
b. 2 RHZE/4HRE
c. 2RHZE/4RH
d. 1RHZE/5RH

2. One of the following is away of diagnosing rheumatic fever in patient

a. 2 major criteria
b. 2 major and 2 minor
c. 2 major and 1 minor
d. 2 minor

3. Which one of the following anti tuberculosis drugs is used for prophylaxis

a. Rifampicin
b. Isoniazide
c. Pyrazinamide
d. Erthambutol

4. The following is correctly marched

a. Tinea corporis – fungal infection of the trunk ✓
b. Tinea carpitis – fungal infection of toes ×
c. Tinea cruris – fungal infection of the scalp ×
d. Tinea pedis – fungal infection of the phaynx ×

5. **Herpers simplex virus type II has the following features except**
   a. Causes genital ulcers
   b. It is a sexually transmitted disease
   c. It is caused by varicella zoster virus
   d. Does not affect the rectum

6. **Immune reconstitution syndrome is the**
   a. Worsening of the clinical condition of the patient
   b. Appearance of new symptoms after starting ART
   c. Major side effects caused by some ARV drugs
   d. Is the window period

7. **One of the following statements is true about the goal of HAART**
   a. To reduce the quantity of virus in blood and increase CD4 cells
   b. To increase the quantity of virus in blood
   c. To increase the number of red blood cells
   d. To reduce the CD4 cell count

8. **HIV makes the body weak and unable to fight opportunistic disease by**
   a. Destroying red blood cells
   b. Destroying white blood cells
   c. Destroying liver cells
   d. Suppressing plasma

9. **Peripheral neuropathy may be a complication of the following drugs**
   a. Pyridoxine
   b. Isoniazide
   c. Dapsone
   d. Stavudine

10. **The following is a urinary tract infection**
    a. Gonorrhea
    b. Candidiasis
    c. Balanitis
    d. Pyelonephritis

11. **A known diabetic patient is brought in coma with a random blood sugar of 33.0mmolls respond to the following statement;**
    a. This is a side effect of insulin injection
    b. Start intravenous 5% dextrose immediately
    c. Send the patient home on metformin
    d. Admit the patient and start management of DKA

12. **The following are bacteria a infections except**
    a. Shigella
    b. Staphylococcal food poisoning
    c. Cholera
    d. Giardiasis

13. **Concerning syphilis**

a. Its primary sore is very painful
b. Secondary stage has no dermatological feature
c. Penicillin is the drug of choice
d. It is only transmitted sexually

14. **A long term complication of diabetes mellitus is**

a. Cataract
b. Hypoglyceamia
c. Diabetic ketoacidosis
d. Dehydration

15. **The correct presentation of leukemia is**

a. Bleeding tendencies
b. Priapism
c. Panyctopenia
d. Lymphadenitis

5

DVT
TF

T
F
T

F
T
F

KENYA MEDICAL TRAINING COLLEGE – EMBU

DEPARTMENT OF CLINICAL MEDICINE & SURGERY

END SEMESTER EXAMINATIONS

CLASS: SEPT 2011 **DATE: 18TH FEBRUARY 2013.**

TIME: 3 HOURS (8.30am – 11.30am)

PATHOLOGY

INSTRUCTIONS

1. Read and understand all questions before you start.
2. **Any cancellations must be clear, unclear response will not be awarded marks**
3. Write student number on all papers used.
4. Answer all the questions.
5. **MARK 'X'** if true against the response or **'X'** if the answer is false on the answer sheet provided
6. Non examination materials are **Not allowed** in the examination room.
7. Time is 3 hours
8. Use a pen to answer all the questions

1. **A 21 year old patient was playing basket ball at Embu College when he suddenly experienced pain on the right shoulder from his left chest wall with sudden difficulty in breathing although he missed his aspirin dose that morning.**
   What is your likely diagnosis?
   a. Pulmonary embolism
   b. Heart failure
   c. Angina pectoris
   d. Dislocated right shoulder
   e. Pneumonia
2. **Chronic myelogenous leukemia is characterized by all of the following features;**
   a. Massive splenomegaly
   b. Transition to acute leukemia
   c. Excellent response to chemotherapy
   d. Lack of alkaline phosphate in circulating neutrophils
   e. None of above
3. **Features of megaloblastic anaemias include all of the following;**
   a. Hypersegmentic neutrophils
   b. Giant platelets
   c. Increased intramedullary hemolysis
   d. Increased extramedullary hemolysis
   e. Epithelial atypical of the gastric mucosa
4. **All of the following statements correctly describe aplastic anaemia;**
   a. Chemical exposure is the most causes
   b. Fanconi's anaemia represents an inherited form of the disease
   c. Its idiopathic in 50% of cause
   d. Splenomegaly is a characteristic clinical finding
   e. Production of all hematopoietic bone marrow element is reduced
5. **Causes of jaundice include the following conditions**
   a. Enzyme disorders of the newborn
   b. Iron deficiency anaemia
   c. αThalassaemia but not β Thalassaemia
   d. Megaloblastic anaemia
   e. Leukemia
6. **A 26 year old patient attended EMBU PGH with cough, chest pain difficulty in breathing on climbing stairs and on examination he had abdominal distension, pallor and cyanosis.**
   What is the likely diagnosis?
   a. Leukemia
   b. Iron deficiency anaemia
   c. Paracetamol poisoning
   d. Right heart failure
   e. Left heart failure

Concerning normal heart features in a 70 kg healthy adult

a. Left ventricular wall thickness is approximately 0.5 cm
b. Right ventricular wall is approximately 1.5 cm
c. Total amount of blood daily is approximately 600 L/day
d. Stroke volume is the amount of blood ejected from the ventricles per contraction
e. Heart weighs 350-440 grams

8. **A patient in Nyayo ward at Nakuru PGH presented with jaundice, hepatomegaly and Pallor on further investigation he had travelled to Nyanza where she was transfused due to severe anaemia. What would be your diagnosis?**
   a. Leukemia
   b. Aplastic anaemia
   c. Hepatitis B
   d. Transfusion reaction
   e. Iron deficiency anaemia
9. **Causes of cervical lymphadenopathy in children could be due to**
   a. Leukemia
   b. Tonsillitis
   c. TB adenitis
   d. Nasopharyngeal carcinoma
   e. Malaria
10. **About haemolytic crisis**
    a. Often triggered by viral infection
    b. Increased haemolysis is due to engorgement of the spleen
    c. Characterized by mild jaundice
    d. Worsened by hereditary spherocytosis
    e. Aplastic crisis may follow parvovirus infection
11. **Contrasting features or lobar pneumonia and broncho pneumonia;**
    a. In broncho pneumonia is acute infection of a part of a lobe of one or both lungs or the entire lobe
    b. In lobar pneumonia acute infection of the terminal bronchioles extending into adjoining alveoli
    c. Lobar pneumonia is more common in adults while broncho pneumonia occurs in extreme of age
    d. Lobar pneumonia more often affect healthy individuals while broncho pneumonia is predisposed by pre-existing diseases
    e. In broncho pneumonia causative agents are staphylococci streptococci pseudomonas and haemophilus influenza while in lobar pneumonia causative agents are pneumococcal, klebsiella, staphylococci, streptococci

12. **All the following statements correctly describe hereditary sphrocytosis;**
    a. Red blood cells lack the membrane associated protein spectrum
    b. A mutation in the ankyrin genes is present in most cells
    c. Hemolytic crisis is an occasional complication
    d. An a plastic crisis is an occasional complication
    e. Splenectomy is invisibly therapeutic
13. **Iron deficiency anemia is commonly associated with all of the following factors;**
    a. Colon cancer
    b. Long cancer
    c. Gastrestomy
    d. Normal menstruation
    e. Pregnancy
14. **The Sinoatrial node sends impulses directly to;**
    a. Atrio -ventricular node
    b. Bundle of his
    c. Atrio- ventricular bundle
    d. Right bundle branch
    e. Left bundle branch
15. **The following microbial agents causes lobar pneumonia;**
    a. Streptococcus pneumonia is the most commonest organism
    b. B haemolytic pneumonia is the most commonest causative organisms in children
    c. H. Influenza commonly causes pneumonia in children below 3 years
    d. Bacterial infections precede viral infection
    e. Pneumococcal pneumonia causes is a common cause of acquired infection
16. **Functions of the normal spleen include following;**
    a. Generation of immune responses
    b. Destruction of abnormal erythrocytes
    c. Storage of erythrocytes
    d. Production of erythrocytes
    e. Storage of platelets
17. **The following factors predispose to infarction formation**
    a. Deficiency in antithrombin
    b. Disseminated cancer
    c. Oral contraceptives
    d. Advanced age
    e. Arteriosclerosis
18. **Complications of lobar pneumonia include;**
    a. Suppuration and fibrosis
    b. Ingrowth of fibroblasts from the alveolar septa during organization
    c. Empyema
    d. Long abscess
    e. Pericardial effusion

Bronchopneumonia;

a. Frequent in infant and old age
b. Can occur as a terminal event in chronic debilitating diseases
c. Common organisms responsible is staphylococci, streptococci and pneumococci
d. Exposure to cold may predispose
e. Results in patchy consolidation their lung

20. Malignant hypertension;

a. Pathological hall mark is fibrinoid necrosis
b. Causes encephalopathy
c. Heart failure is a complication
d. Papilloedema may or may not occur
e. It occurs in conjunction with bilateral retinal haemorrage

21. The following are clinical features of right heart failure

a. Paroxysmal nocturnal dyspnoea
b. Peripheral oedema
c. Facial engorgement
d. Ascites
e. Cardiac 'asthma'

22. Hereditary spherocytosis

a. Occurs due to cell wall abnormalities
b. Worsen by thalassaemia
c. Worsen by splenectomy
d. It's a dominant recessive disorder
e. Jaundice is a prominent feature due to haemolysis

23. Pathological changes in lobar pneumonias;

a. The affected lobe is red, hard and congested
b. Affected lobe is enlarged, heavy dark red and congested
c. The cut surface of the involved lobe is airless, red pink, dry granular and have liver like consistency
d. Cut surfaces exudes blood stained frothy fluid
e. Affected lobe is firm and heavy

24. The following dioders will cause an enlarged spleen

a. Kalaazar
b. Irondeficiency anaemia
c. Haemolytic anaema
d. Leukemia
e. Malaria

25. Aplastic anaemia may result from

a. Toxicity with chloramphenical
b. Radiation therapy
c. Infections
d. Benzene poisoning
e. Gamma rays

26. The following factors will cause volume overload

a. Anaemia
b. Thyrotoxicosis
c. Hypertension
d. Aneurysm
e. Coarctation of aorta

27. The following are features of hypertensive retinopathy

a. Papilloedema
b. Cotton wool spots
c. A-V nipping
d. Tortuous arthritis with thick shiny walls
e. All of the above

28. The following are caused of neonatal anaemia

a. αThalassaemia
b. Congenital syhillis
c. Congenital leukemia
d. Burkitt lymphoma
e. Enzyme deficiency e.g. G6PD

29. Which of the following order represents the M-phase of cell cycle

a. Prophase metaphase anaphase telophase
b. Prophase anaphase metaphase telophase
c. Telophase anaphase metaphase prophase
d. Metaphase telophase anaphase prophase
e. Anaphase telophase prophase metaphase
f. Prophase anaphase telpophase metaphase

30. The following condition causes cellular injury

a. Bacterial infections
b. Caustic pencils
c. Kwashiorkor
d. Radiation
e. Stress

31. The following are causes of fatty changes

a. Starvation
b. Malnutrition
c. Diabetis mellitus
d. Late pregnancy
e. Obesity

32. The following are causes of caseous necrosis

a. Mycobactera tuberculosis
b. Actinomycosis
c. Infaction
d. Echinococcus
e. All of above

33. **The following are features of apoptosis**
    a. No inflammatory reaction occurs
    b. Usually there is death of single cells
    c. There is cell membrane disruption
    d. Macrophages engulf cell debris during phagocytosis
    e. It's a pathological and physiological process
34. **The following are causes of pathologic atrophy**
    a. Polio
    b. Plaster of paris plastering after fracture
    c. Hypopituitarism
    d. Anorexia nervosa
    e. Menopause
35. **The following are autoimmune disorders**
    a. Systemic lupus erythromatosis
    b. Sjögrens syndrome
    c. Scleroderma
    d. Reiters syndrome
    e. All of above
36. **Pulmonary oedema may result from the following pathologic processes**
    a. Increased pulmonary hydrostatic pressure
    b. Increased vascular permeability
    c. Decreased oncotic pressure
    d. Decreased pulmonary hydrostatic pressure
    e. None of the above
37. **The following are types of emboli**
    a. Bland emboli
    b. Septic emboli
    c. Gaseous emboli
    d. Bacterial clumps
    e. Foreign bodies
38. **The following are effects occurring as a result of infarction**
    a. Myocardial infarction
    b. Sudden death
    c. Poor wound healing
    d. Skin ulcer
    e. Thrombophlebitis
39. **About long abscess**
    a. Its generalized area of necrosis of long tissue with suppuration
    b. Commonest cause of primary lung abscess is aspiraton
    c. Secondary lung abscess precede other diseases of the lung
    d. May occur from septic embolism
    e. Clubbing of the fingers and toes appear in about 20% of patients

40. **Concerning hereditary spherocytosis;**
    a. Jaundice is due to increased concentration of direct bilirubin intreplasma
    b. Jaundice is due to increased unconjugated bilirubin in the plasma
    c. Pigment store are frequent due to increased bile pigment production
    d. Splenectomy is the only reliable mode of treatment
    e. MCV is normal or slightly decreased but is mute increased
41. **In microcyte hypochomic anamia;**
    a. MCV, MCH, MCHC is increased
    b. MCV, MCH, MCHC is reduced
    c. Occurs in thalasamia
    d. Occurs in iron deficiency anemia
    e. Occurs in sidonoblastic anemia
42. **Hematologic disorders occurring in the Middle East Mediterranean region include all of the following;**
    a. Thalassemia major
    b. Thalassemia minor
    c. X chain disease
    d. Christmas disease
    e. Glucose – 6 – phosphatase dehydrogenase deficiency
43. **Kiarie a secondary school teacher presented to casualty with haemoptysis , dysnoea at rest bilateral lower limb swelling and on examination the left lower lobes a wheeze was audible. What is your diagnosis?**
    a. Right heart failure
    b. Left heart failure
    c. Status ashmaticus
    d. Broncho pneumonia
    e. Pneumonia
44. **In normocytic monochromic anaemia;**
    a. MCV, and MCH and normal but mate is reduced
    b. Second by haemolytic anaemia
    c. Occurs by sideroblastic anaemia
    d. Occurs by bone marrow failure
    e. Occurs by iron deficiency anaemia
45.
    a. Macrocytic anaemia could be due to folate deficiency
    b. Macrocytic anaemia MCHC and MCV are normal but MCH is raised
    c. Thiamine deficiency can cause megaloblastic anaemia
    d. MCV is raised in a plastic anaemia
46. **Haematocrit is the volume of erythrocyte per litre of whole blood;**
    a. Severe bleeding will result in iron deficiency anemia
    b. During excessive menstruation the MCV, MCHC and MCV are females
    c. Haemoglobin content in neonate is higher than adult females
    d. Erythropoiec activity is regulated by erythropoetic hormones form the heart

Causes of primary hypertension;
a. Idiopathic
b. Diabetic mellitus
c. Renal disease
d. Adrenal disorders
e. Corticosteroid

48. **Complications of atheroma;**
a. Gangrene
b. Aneurysm
c. Heamorrhage
d. Resolution
e. Infection

49. **Features of malignant hypertension;**
a. Can result to cardiac failure
b. Can cause cerebral heamorrhage
c. Papilloedema
d. Dizziness
e. Develops in 10% of benign cases

50. **About haemoglobin**
a. Synthesis of heam occurs largely in mitochondria
b. 65% of haemoglobin is synthesized by nucleated red cell precursor in the bone marrow
c. Haem molecule is formed from iron
d. Several amino acids comprises haemoglobin component or haemoglobin
e. Vitamin B6 essential in synthesis of haemoglobin

51. **Risk factors associated with secondary hypertension;**
a. Family history of hypertension
b. Increased tables salt
c. Glucose intolerance
d. Obesity
e. Stress

52. **About eosinophil's;**
a. Play a role in defense against worms
b. Raised in allergic bronchitis
c. Loefflers syndrome causes elevated levels
d. Capable of phagocytosis and killing ingested microorganism
e. Raised following snake bite

53. **Atherosclerosis has a familiar predisposition**
a. Genetic factors has no role in atherosclerosis
b. Clinically significant lesions and found with increasing age
c. Atherosclerosis is more in men than women
d. Atherosclerosis predispose to cerebral infants

54. **The following morphologic entities are included under arteriosclerosis;**
    a. Senile atherosclerosis
    b. Atheroma
    c. Atherosclerosis
    d. Monckeberg arteriosclerosis
    e. Hypertension arteriosclerosis
55. **The following are non-infectious arteritis**
    a. Takayasus arteritis
    b. Kawasakis disease
    c. Temporal arteritis
    d. Buergers diseases
    e. Raynaud disease
56. **Infections arteritis are;**
    a. Endoarteritis obliterans
    b. Syphilitic arteritis
    c. Kawasakis diseases
    d. Giant cell arteritis
    e. Thromboangitis obliterans
57. **Concerning reticuloendothelial system it involves a group of cell such as;**
    a. Kuffer cells in the liver
    b. Kuffer cells in the sinusoids of spleen
    c. Macrophages located in the spleen
    d. Macrophages located in the bone marrow
    e. Macrophages located in the liver
58. **The following clinical mediators result in an inflammatory response of vasodilatation, increased permeability;**
    a. Histamine
    b. Prostaglandins
    c. Bradykinin
    d. Platelet alternating factor
    e. Complement system
59. **The following are pathological changes or systemic hypertension;**
    a. Thickening of muscle
    b. Fibrous replacement of smooth muscle
    c. Medical smooth muscle replacement by collegium
    d. Aneurysm formation
    e. Thickening and rigidity
60. **Cardiac complications of systemic hypertension**
    a. Arteriosclerosis
    b. Cerebrovascular accident
    c. Co-pulmonale
    d. Pulmonary oedema
    e. Coarctation of aorta