



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCE
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF SEPT-DECEMBER 2024 TRIMESTER EXAMINATIONS**

UNIT CODE: **UNIT NAME:**
DATE: **Day/ Date/ AUGUST**
TIME: **TWO HOURS**
START: **0:00** **STOP : 0:00**

INSTRUCTIONS (physical exams)

- 1. Do not write on this question paper**
(Marks and questions distribution as per program curriculum.)

INSTRUCTIONS (Online examinations)

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This online exam shall take 2 Hours
4. Late submission of the answers will not be accepted
5. Ensure your web-camera is on at all times during the examination period
6. No movement is allowed during the examination
7. Idling of your machine for 5 min or more will lead to lock out from the exam
8. The Learning Management System (LMS) has inbuilt integrity checks to detect cheating
9. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam
10. In case you have any questions call the invigilator for this exam on Tel. 0705833434 and or the Head of Department on Tel 0720491032
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

SECTION I: MULTIPLE CHOICE QUESTIONS. ALL QUESTIONS (30 MARKS)

1. Reduced Plasma Oncotic Pressure is the most important cause of generalized edema in:-
 - a. Congestive Heart Failure
 - b. Constrictive Pericarditis
 - c. Head Trauma
 - d. Nephrotic Syndrome

2. The contents of a blister is an example of which type of exudate:-
 - a. Serous
 - b. Fibrinous
 - c. Purulent
 - d. Cellular

3. Nutmeg Liver is caused by:-
 - a. Viral Hepatitis
 - b. Acute Hepatic Congestion
 - c. Chronic Hepatic Congestion
 - d. Fibrosis of the Liver

4. The following are predisposing factors for pyelonephritis EXCEPT:-
 - a. Pregnancy
 - b. Renal Artery Stenosis
 - c. Prostatic Hypertrophy
 - d. Renal Calculi

5. Post streptococcal glomerulonephritis is most closely associated with:-
 - a. Sub epithelial deposits
 - b. Fibrin Leakage
 - c. Peripheral Linear IgG deposits by immunoflorescence
 - d. Tubular immunoflorescence

6. Chemical Carcinogen, Aflatoxin B₁, derived from a fungus which may contaminate peanuts, most commonly induces:-
 - a. Transitional Cell Carcinoma of the Lung
 - b. Adenocarcinoma of the Rectum
 - c. Hepatocellular Carcinoma
 - d. Squamous Cell Carcinoma of the Skin

7. The following are Tumor Markers EXCEPT:-
 - a. Thromboxane A₂
 - b. Carcinoembryonic Antigen
 - c. Prostate Specific Antigen
 - d. Chorionic Gonadotrophin

8. Metaplasia is most closely associated with:-
 - a. Hypercalcemia
 - b. Chronic Irritation
 - c. Diminished Blood Supply
 - d. Increased Workload

9. Chest X-Ray of the Lung from a patient suffering of sarcoidosis characteristically shows:-
 - a. Apical Cavitation
 - b. Lobar Consolidation
 - c. Bilateral Enlarged Hilar Lymph Nodes
 - d. Pleural Thickening

10. Benign Tumors:
 - a. Commonly Metastasize
 - b. Are Encapsulated
 - c. Have hyperchromatic nuclei
 - d. Infiltrate surrounding tissue

11. Immune-Complex Glomerulonephritis is seen with:-
 - a. Tuberculoid Leprosy
 - b. Lepromatous Leprosy
 - c. Typhoid Fever
 - d. Amoebic Dysentery

12. Individuals with Sickle Cell Trait are resistant to Malaria because:-
 - a. They have low hemoglobin
 - b. Anopheles mosquito does not bite them
 - c. Their red blood cells sickle when parasitized and are removed by spleen
 - d. Their red blood cells contain antiparasite antibodies

13. An inflammation and ulceration of Peyer Patches is associated with:-
 - a. Intestinal Tuberculosis
 - b. Bacillary Dysentery
 - c. Intestinal Schistosomiasis
 - d. Typhoid Fever

14. One of the following is an Immune-Complex Disease:-
 - a. Rheumatoid Arthritis
 - b. Bronchial Asthma
 - c. Chronic Osteomyelitis
 - d. Acute Glomerulonephritis

15. A cause of secondary Adrenal hypo-function:-
- Tuberculosis of adrenals
 - Adrenal Ectomy
 - Pituitary Tumors
 - Meningococcal Septicemia
16. An outcome of thrombosis wherein the thrombi tends to grow due to deposition of additional platelets, fibrin and red blood cells:-
- Resolution
 - Propagation
 - Organization
 - Recanalization
17. A possible complication of Cardiogenic Shock:-
- Chronic Pyelonephritis
 - Acute Tubular Necrosis
 - Nodular Glomerulosclerosis
 - Renal Vein Thrombosis
18. The secretion of Parathyroid Hormone is controlled by the concentration of:-
- Extracellular Ionized Calcium
 - Calcium bound to Citrate
 - Calcium bound to Plasma Proteins
 - Calcium inside the Bone Matrix
19. Diabetic Nephropathy is detected by:-
- High Blood Sugar
 - Micro Albuminemia
 - Glycosuria
 - Hematuria
20. A type of necrosis most typically associated with pyogenic infection:-
- Fibrinoid necrosis
 - Coagulation necrosis
 - Caseous necrosis
 - Liquefaction necrosis
21. A substance which accumulates in atherosclerotic blood vessels:-
- Fatty acids
 - Triglycerides
 - Phospholipids
 - Cholesterol esters

22. Cervical squamous carcinoma arise in:-
- Endocervical glands
 - Endocervix
 - Exo-cervix
 - Transformation zone
23. Gastric lymphoma is a known complication of:-
- Autoimmune gastritis
 - Gastric Crohn's disease
 - Zollinger-Ellison Syndrome
 - H-pylori associated gastritis
24. High cholesterol predisposes to:-
- Obesity
 - Acute pancreatitis
 - Atherosclerosis
 - Renal failure
25. Pleural plaques arise from exposure to:-
- Asbestos fibers
 - Silica dust
 - Iron particles
 - Cotton fibers
26. In Grave's disease one would LEAST likely expect:-
- Increased sweating
 - Increased metabolic rate
 - Increased thyroid stimulating hormone
 - Enlarged thyroid gland
27. Hypochromic microcytic red blood cells (RBCs) are seen in:-
- Chronic blood loss
 - Liver disease
 - Folic acid deficiency
 - Aplastic anemia
28. A test for investigation of adrenal hypofunction is:-
- Low dose dexamethasone
 - Synacthen test
 - Insulin test
 - Glucose tolerance test

29. A study of persons receiving emergent medical services conducted. It is observed that 5% of persons with sudden cardiac arrest who receive cardiopulmonary resuscitation survive. The most likely mechanism of cardiac arrest in these survivors is:-
- Infarction
 - Inflammation
 - Arrhythmia
 - Valve failure
30. In acute myocardial infarction, sudden death is due to:-
- Rapture of ventricular aneurysm
 - Formation of large intramural thrombus
 - Pulmonary embolism
 - Ventricular arrhythmia

SECTION II: SHORT ANSWER QUESTIONS

(20 MARKS)

- State FIVE risk factors for atherosclerosis (5 marks)
- Describe the ability of chemical carcinogens to induce cancer development (5 marks)
- State FIVE factors associated with disseminated intravascular coagulation (5 marks)
- Describe the pathogenesis of diabetic ketoacidosis (5 marks)

LONG ANSWER QUESTIONS

(20 MARKS)

Instructions: Answer question ONE then choose another one question between 2 and 3 below.

- Describe the mechanisms underlying pathological changes in glomerular damage from nephrotic syndrome disease (10 marks)
- Describe the main pathologic consequences of shock (10 marks)
- Describe the pathologic effects of occlusion of end arteries of the heart, lungs and brain (10 marks)