



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
End of Semester April 2025 Examinations**

COURSE CODE AND TITLE: BSN 214: Human Pathology

DATE: 14-APRIL-2025

Duration: 2 HOURS

Start: 9:00 AM

Finish: 11:00 AM

INSTRUCTIONS

1. This exam is out of 70 marks
2. This Examination comprises THREE Sections. Section I: Multiple Choice Questions (20 marks) Section II: Short Answer Questions (30 marks) and Section III: Long Answer Questions (20 marks)
3. Answer ALL Questions.
4. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION I: MULTIPLE CHOICE QUESTIONS

(20MARKS)

1. The major mechanism of damage to cell membrane in ischemia is: -
 - A. Reduced intracellular pH
 - B. Increased intracellular accumulation of sodium
 - C. Increased calcium ions in the cytosol
 - D. Reduced aerobic respiration

2. Diabetic foot is an example of: -
 - A. Dry gangrene
 - B. Wet gangrene
 - C. Gas gangrene
 - D. Necrotizing inflammation

3. The TRUE statement regarding metaplasia is: -
 - A. It is a disordered growth
 - B. It affects only epithelial tissue
 - C. It is a reversible change
 - D. It is an irreversible and progressive change

4. With regard to autosomal recessive disorders: -
 - A. At least one parent with the heterozygous mutation is sufficient for showing the phenotype in progeny
 - B. The affected individuals are always homozygous for the mutant allele
 - C. Often heterozygotes (individuals with one allele) are generally carriers.
 - D. None of the statements are correct

5. The infarct of which organ is invariably hemorrhagic is: -

- A. Kidney infarct
 - B. Splenic infarct
 - C. Lung infarct
 - D. Heart infarct
6. The first line of defense initiated immediately after a person sustains injury to prevent further injury is: -
- A. Walling off the injured area
 - B. Tissue macrophage invasion
 - C. Neutrophil invasion of the inflamed area
 - D. Increased production of granulocytes and monocytes
7. Enzymatic digestion is the predominant event in: -
- A. Coagulative necrosis
 - B. Liquefactive necrosis
 - C. Caseous necrosis
 - D. Fat necrosis
8. A 'keloid' is a type of: -
- A. Cancer
 - B. Cellular hyperplasia
 - C. Scar
 - D. Infarct
9. Hypertrophy: -
- A. Increases function of an organ exponentially
 - B. Occurs after partial hepatectomy

- C. Is triggered by mechanical and trophic chemicals
 - D. Is usually pathological
10. Heat and swelling in acute inflammation is due to: -
- A. Increased vascular permeability
 - B. Spasm
 - C. Increased blood flow
 - D. Leukocytic migration
11. Regarding wound healing: -
- A. The inflammatory response in primary healing is more intense than in secondary healing
 - B. At 1 week, the wound strength is 20% of that of unwounded skin
 - C. Wound contraction is due in part to fibroblast contraction
 - D. In primary union, collagen fibres appear with granulation tissue
12. The most important cause of delay of healing is: -
- A. Inadequate blood supply
 - B. Infection
 - C. Foreign body presence
 - D. Poor nutritional state of the patient
13. The most common predisposing factor for developing thromboembolism is: -
- A. Immobility
 - B. Post-surgery status
 - C. Malignancy
 - D. Coronary artery disease

14. The set of observable characteristics which are the sum of the genetic and environmental effects is: -
- A. Karyotype
 - B. Genotype
 - C. Phenotype
 - D. Both phenotype and genotype
15. Oncogenes are the cancer causing cells by they do not express usually because of the presence of: -
- A. Proto oncogenes
 - B. Tumor promoters
 - C. Tumor suppressor genes
 - D. Transposons or jumping genes
16. Cancer cells are rapidly destroyed by radiations due to: -
- A. Fast mutation
 - B. Rapid cell division
 - C. Lack of mutation
 - D. Lack of oxygen
17. The feature which is not potentially a sign of end organ involvement following chronic hypertension is: -
- A. Seizure
 - B. Irritability
 - C. Vomiting
 - D. Respiratory distress

18. In the "ABCD" guidelines to melanoma the "D" stands for: -

- A. Dimension
- B. Darkness
- C. Diameter
- D. Depth

19. The most important cause of delay of healing is: -

- A. Inadequate blood supply
- B. Infection
- C. Foreign body presence
- D. Poor nutritional state of the patient

20. The type of cancerous tumors that are characterized as being nonsolid is: -

- A. Sarcomas
- B. Lymphomas
- C. Leukemia
- D. Carcinoma

SECTION II: SHORT ANSWER QUESTIONS

(30 MARKS)

- 1. Describe the different types of gangrene (6 Marks)
- 2. Briefly describe the various types of necrosis. (6 Marks)
- 3. Discuss the differences between malignant and benign tumors (6 Marks)
- 4. State 4 outcomes of acute inflammation (6 Marks)
- 5. State the pathophysiology of glomerular syndrome (6 Marks)
- 6. Describe the pathophysiology of atherosclerosis (6 Marks)

SECTION III: LONG ANSWER QUESTIONS

(20 MARKS)

- 1. Describe five (5) mediators of inflammation (10 Marks)
- 2. Discuss wound healing by primary and secondary intention (10 Marks)