



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
END OF SEMESTER AUGUST 2023 EXAMINATIONS

COURSE CODE AND TITLE: BSN 214 HUMAN PATHOLOGY

Date: 10TH AUGUST 2023

Time: 2 Hours

Start: 9:00 A.M

Finish: 11:00 A.M.

Instructions

- 1) This paper has three sections: Section I, Section II and Section III
- 2) Answer **ALL** questions in Section I and Section II and only **ONE** in Section III
- 3) Use the University examination booklets provided
- 4) Re-writing the questions on your answer sheet is unnecessary

SECTION I: MULTIPLE CHOICE QUESTIONS

(20MARKS)

1. The major mechanism of damage to cell membrane in ischaemia 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 haemorrhagic is: -
 - A. Kidney infarct
 - B. Splenic infarct
 - C. Lung infarct
 - D. Heart infarct

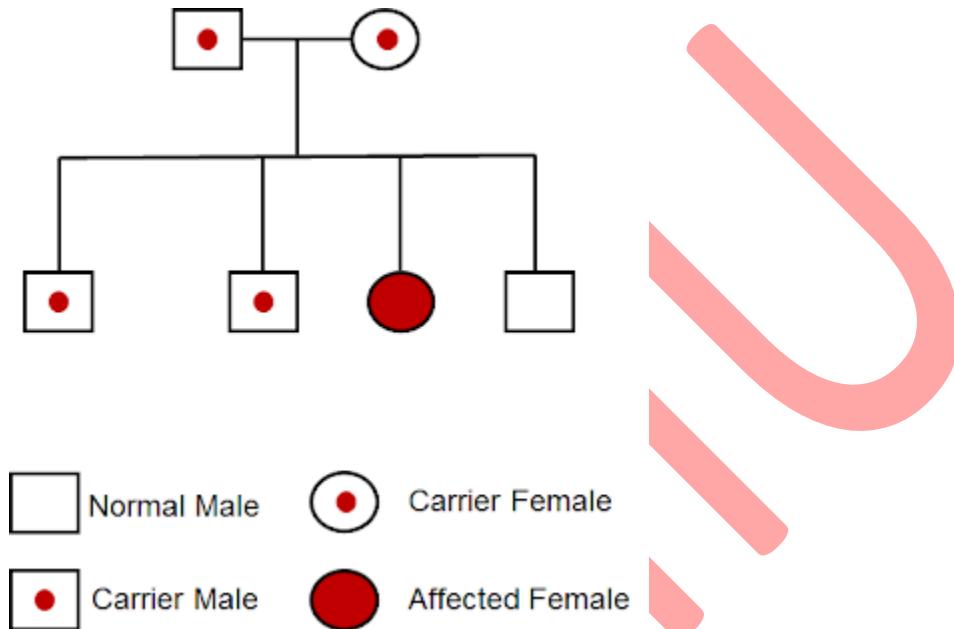
6. The first line of defense initiated immediately after a person sustains injury to prevent further injury is: -
- Walling off the injured area
 - Tissue macrophage invasion
 - Neutrophil invasion of the inflamed area
 - Increased production of granulocytes and monocytes
7. Enzymatic digestion is the predominant event in: -
- Coagulative necrosis
 - Liquefactive necrosis
 - Casesous necrosis
 - Fat necrosis
8. A 'keloid' is a type of: -
- Cancer
 - Cellular hyperplasia
 - Scar
 - Infarct
9. Hypertrophy: -
- Increases function of an organ exponentially
 - Occurs after partial hepatectomy
 - Is triggered by mechanical and trophic chemicals
 - Is usually pathological
10. Heat and swelling in acute inflammation is due to: -
- Increased vascular permeability
 - Spasm
 - Increased blood low
 - 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 factor which determines the severity of a pulmonary embolus is: -
- A. Type of embolism
 - B. Degree of obstruction
 - C. Speed of onset
 - D. General health of the patient
15. 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

16. Hemophilia is inherited through: -

- A. X linked dominant gene
- B. X linked recessive gene
- C. Y linked dominant gene
- D. Y linked recessive gene

17. Identify the pattern of inheritance from the linkage: -



- A. Autosomal Dominant
- B. Autosomal Recessive
- C. X-linked Recessive
- D. X-linked Dominant

18. 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

19. Cancer cells are rapidly destroyed by radiations due to: -
- Fast mutation
 - Rapid cell division
 - Lack of mutation
 - Lack of oxygen
20. The feature which is not potentially a sign of end organ involvement following chronic hypertension is: -
- Seizure
 - Irritability
 - Vomiting
 - Respiratory distress

SECTION II: SHORT ANSWER QUESTIONS **(30 MARKS)**

- Differentiate between pathologic and physiologic atrophy using appropriate examples (6 marks)
- Explain the effects of tumors on the host (6 marks)
- Describe the different types of gangrene (6 marks)
- Explain the stages of hypovolemic shock (6 marks)
- Discuss the differences between malignant and benign tumors (6 marks)

SECTION III: LONG ANSWER QUESTIONS **(20 MARKS)**

Answer only ONE question

- Discuss the mediators of inflammation (20 marks)
- Discuss wound healing (primary and secondary intention) (20 marks)