



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPT. OF NURSING AND MIDWIFERY SERVICES
BACHELOR OF SCIENCE MIDWIFERY

COURSE CODE: BSM 214

COURSE NAME: HUMAN PATHOLOGY AND HAEMATOLOGY

DATE: THURSDAY 29TH JULY, 2021

TIME ALLOWED: 2 HOURS

START TIME: 9.00AM **FINISH TIME:** 11.00AM

INSTRUCTIONS:

1. The exam is set out of 70 marks
2. Section A has 20 MCQs, each is one mark
3. For section A, select only one correct response
4. Section B has Short Answer Questions (SAQs) worth 20 marks
5. Section C has long answer Questions (LAQs) worth 30 marks
6. Answer all the questions in all sections

SECTION A. MULTIPLE CHOICE QUESTIONS (MCQs)-20 MARKS

1. The average lifespan of Red blood cells is:
 - A. 120 days
 - B. 300 days
 - C. 90 days
 - D. 14 days

2. Which of the following organs is NOT a site for hematopoiesis in the fetus?
 - A. Liver
 - B. Bone marrow
 - C. Spleen
 - D. Kidney

3. Sudden death in patients with pulmonary embolism is caused by:
 - A. Atelectasis
 - B. Development of chronic obstructive pulmonary disease
 - C. Blockage of blood flow through the lungs
 - D. Development of pulmonary hypertension

4. Determination of packed cell volume (PCV) helps in the following Except?
 - A. Diagnosis and treatment of anemia
 - B. Treatment of bacterial infection
 - C. Diagnosis and treatment of polycythemia
 - D. Decision of blood transfusion

5. Which of the following are most frequent site of venous thrombosis?

- A. Veins of lower extremity.
- B. Pelvic veins.
- C. Portal vein.
- D. Hepatic vein.

6. Which of the following types of necrosis is grossly opaque and chalky white:

- a. Coagulation necrosis.
- b. Liquefaction necrosis.
- c. Caseous necrosis.
- d. Fat necrosis.

7. In infectious diseases

- A. Bacterial endotoxin is a mucoprotein on the inner cell wall.
- B. The molecular mechanisms of most exotoxins are unknown.
- C. Microbes that propagate in the lumen of the intestine are accessible to IgA antibodies
- D. Bacterial adhesins that bind bacteria to host cells have a broad range of host cell specificity.

8. The following is NOT a correct step in Phagocytosis

- A. Recognition and attachment of the particle to the ingesting leukocyte
- B. Engulfment, with subsequent formation of a phagocytic vacuole
- C. Killing and degradation of the ingested material
- D. Secretion of sebum

9. Which of the following is not a cardinal sign of inflammation?

- A. Redness
- B. Gangrene
- C. Swelling
- D. Pain

10. Causes of atrophy include ALL the following EXCEPT?

- A. Loss of innervation
- B. Diminished blood supply
- C. inadequate nutrition
- D. Loss of appetite

11. In bronchial asthma

- A. extrinsic asthma is initiated by diverse non-immune mechanisms.
- B. sub-epithelial vagal receptors in respiratory mucosa are insensitive to irritants.
- C. IgG immunoglobulins play a major role.
- D. primary mediators include eosinophilic and neutrophilic chemotactic factors.

12. All of the following are major risk factors for atherosclerosis EXCEPT

- A. obesity.
- B. hyperlipidaemia.
- C. smoking.
- D. hypertension

13. Metastasis
- A. Unequivocally proves malignancy.
 - B. Is proven by lymph node enlargement adjacent to a tumour.
 - C. Of breast cancer is usually to supraclavicular nodes.
 - D. Is the most common presentation of melanoma.
14. The majority of HIV AIDS cases are reported from
- A. homosexual males.
 - B. IV drug users
 - C. recipients of blood products.
 - D. heterosexual contact
15. Septic shock may cause all of the following EXCEPT
- A. Myocardial depression.
 - B. Vasoconstriction.
 - C. Disseminated intravascular coagulation.
 - D. Acute respiratory distress syndrome.
16. Concerning the repair of a well opposed, clean surgical incision
- A. there is an initial inflammatory response.
 - B. 15% of original tissue strength is attained at one week .
 - C. granulation tissue does not occur.
 - D. new collagen begins to accumulate after the first week.
17. Macrophages are derived from
- A. monocytes.
 - B. T lymphocytes.
 - C. B lymphocytes.
 - D. Eosinophils

18. The first vascular response to injury is
- A. slowing of the circulation.
 - B. arteriolar vasoconstriction.
 - C. capillary engorgement.
 - D. recruitment of vascular beds
19. Irreversible cell injury is characterized by
- A. dispersion of ribosomes.
 - B. cell swelling.
 - C. lysosomal rupture.
 - D. cell membrane defects.
20. All the following are morphologic features of apoptosis EXCEPT
- A. cell swelling.
 - B. chromatin condensation.
 - C. lack of inflammation.
 - D. phagocytosis of apoptotic bodies.

SECTION B. SHORT ANSWER QUESTIONS- (20 MARKS)

1. State four (4) the functions of the Red blood cells (4 Marks)
2. Outline four (4) reasons for determining PCV (Hematocrit) (4 Marks)
3. Outline four (4) mandatory screening tests for blood donors (4 Marks)
4. State four (4) objectives of pathological examination of cells and tissues (4 Marks)
5. Outline four (4) environmental degradation factors leading to diseases in humans (4 Marks)

SECTION C. SHORT ANSWER QUESTIONS- (30 MARKS)

1. Describe the route of entry of Microbes to our body and associated Micro-organisms (10 marks)
2. Explain the functions of the White blood cells (10 marks)
3. Explain five (5) organ disease conditions related with chronic alcoholism and their causes (10 marks)

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