



“Investing in Africa’s future”

COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

DEPARTMENT OF PUBLIC HEALTH AND NURSING

NSNS 323: HUMAN ANATOMY

END OF FIRST SEMESTER FINAL EXAMINATIONS

NOVEMBER-DECEMBER 2023

LECTURER: DR A KAPFUNDE

DURATION: 3 HRS

INSTRUCTIONS

Answer ALL questions in section a and b then choose any 3

The mark allocation for each question is indicated at the end of the question

Credit will be given for logical, systematic and neat presentations

SECTION A: Write true or false in each of the statements below. (Total 40 marks)

1. Cell Theory explains about
 - a) All living organisms are composed of cell and cell products.
 - b) Cell is the basic unit of structure & function of all living organisms.
 - c) All cells come from the division of preexisting cell.
 - d) An organism as a whole can be understood through the collective activities & interactions of its tissues.
2. The function of the plasma membrane includes to:
 - a. Separate the cytoplasm inside a cell from extra cellular fluid.
 - b. Separate cell from one another
 - c. Provide an abundant surface on which chemical reaction can occur.
 - d. Allow all substances to move in and out of cells.
3. Endoplasmic reticulum is:
 - a. Continuous with the nuclear membrane.
 - b. It's involved in intracellular exchange of material with the cytoplasm.
 - c. Various products are transported from one portion of the cell to another via the endoplasmic reticulum hence, it is considered as intracellular transportation.
 - d. It is also the storage for synthesized molecules.
4. Fibrocartilage is found in the following areas of the body:
 - a. Intervertebral discs
 - b. Symphysis pubis
 - c. Hip joint
 - d. Menisci of the knee
5. The functions of merocrine sweat glands include:
 - a. Cooling the skin by evaporation
 - b. Excreting sweat to dilute harmful chemicals
 - c. Excreting waste products and metabolites
 - d. Antibacterial activities.
6. The direction of osmosis is determined by:
 - a. pH of both solutions
 - b. temperature of the fluid and that of the membrane

- c. concentration of the dissolved solutes on both sides of the membrane
 - d. temperature of the intracellular solutions.
7. The following are the functions of connective tissue:
- a. Protection
 - b. Binding and support
 - c. Insulation
 - d. Transportation of substances.
8. The following are types of neuroglial cells
- a. Bipolar neuron
 - b. Multipolar neuron
 - c. Ependymal cell
 - d. Axon
9. The ovaries produce the following hormones:
- a. Estrogen
 - b. Progesterone
 - c. Inhibin
 - d. Follicle stimulating hormone.
10. The Hypothalamus is the master gland which produces the following
- a. Regulation of sleep-wake cycle
 - b. Synthesizes 9 hormones
 - c. Is the link between the endocrine and the nervous system.
 - d. Regulates growth of individuals through growth hormone.

SECTION B: Answer any 3 questions (60 marks)

QUESTION 1

The skin is the first line defence system of a human body.

Outline the functions of the skin with reference to the mechanism of actions for each.

(20marks)

QUESTION 2

Describe the cells that constitute blood giving resulted effects of deficit or inadequacy of each to the body system.

(20 marks)

QUESTION 3

The central nervous system controls and coordinate body function.

- a. Outline the origin, destination and effects of the cranial nerves in the human body.
(20marks)

QUESTION 4

With reference to the microscopic structure of the kidney describe its functions as an organ of elimination. (20 marks)

END OF PAPER