



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES**

DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES

BACHELOR OF SCIENCE IN NURSING

END OF SEPTEMBER-DECEMBER TRIMESTER 2022 EXAMINATIONS

BSN 112 : HUMAN ANATOMY 1

Date: 29TH NOVEMBER 2022

Time: 2 Hours

Start: 2:00PM

Finish: 4:00PM

Instructions

- 1) This paper has three sections: Section A, Section B and Section C
- 2) Answer **ALL** questions in Section A and Section B and C
- 3) Use the University examination booklets provided
- 4) Re-writing the questions on your answer sheet is unnecessary
- 5) Do Not write anything on the question paper -use the back of your booklet for rough work if need be

SECTION A: MULTIPLE CHOICE QUESTIONS

[20 Marks]

1. Cilia is abundant in the:
 - A. Urinary tract
 - B. Intestinal tract
 - C. Fallopian tube
 - D. Male reproductive ducts

2. The cytoskeleton that overlaps with myosin filaments in muscles is:
 - A. Microtubules
 - B. Microfilaments
 - C. Intermediate tubules
 - D. Intermediate filaments

3. The human somatic cell:
 - A. Contains sex chromosomes
 - B. Has 23 chromosomes in total
 - C. Undergoes both mitosis and meiosis
 - D. Contains a haploid number of chromosomes

4. The tissue type consisting of cells that generally have a spacious intercellular area with matrixes of various types is:
 - A. Connective tissues
 - B. Nervous tissues
 - C. Epithelial tissues
 - D. Propulsion tissues

5. The structure that ties skeletal muscles to bone is:
 - A. Joints
 - B. Cartilage
 - C. Tendons
 - D. Ligaments

6. The tissue that primarily stores triglycerides is:
 - A. Cartilage tissue
 - B. Areolar tissue
 - C. Adipose tissue
 - D. Epithelial tissue

7. The cartilage type that forms the knee menisci is:
 - A. Fibrocartilage
 - B. Elastic cartilage
 - C. Hyaline cartilage
 - D. Articular cartilage

8. The presence of _____ makes the matrix of bones hard
- A. Phosphate salts
 - B. Chondroitin salts
 - C. Calcium salts
 - D. Sodium salts
9. The normal testicular temperature necessary for its optimal functioning is around _____ below the normal body temperature
- A. 2-3°C
 - B. 4-5°C
 - C. 33-36°C
 - D. 31-34°C
10. During prenatal development, the phenotypic sex is determined:
- A. At fertilization by the male gamete
 - B. At fertilization by the female gamete
 - C. Around 6-10 weeks of gestation by the SRY gene
 - D. By the activity of the androgen hormones on the indifferent genitalia
11. As a girl child grows towards her puberty, the first menstrual flow she experiences is termed:
- A. Menopause
 - B. Menstruation
 - C. Menarche
 - D. Thelarche
12. In the female reproductive cycles, the endometrial thickness is greatest during the:
- A. Proliferative phase
 - B. Secretory phase
 - C. Menstrual phase
 - D. Late follicular phase
13. Early pregnancy diagnosis is based upon the detection of _____ by ultrasound imaging
- A. Amniotic sac
 - B. Chorionic cavity
 - C. Human placental lactogen (hPL)
 - D. Human chorionic gonadotrophin (hCG)
14. The most common site of implantation in ectopic pregnancies is:
- A. Cervix
 - B. Mesentery
 - C. Ovary
 - D. Uterine tube

15. Regarding the vertebral column:
- A. There are 8 cervical vertebrae
 - B. Axis is the 1st cervical vertebra
 - C. Lumbar lordosis is a normal curvature
 - D. Central part of the disc is called the annulus pulposus
16. The skull suture present in neonates but not adults is:
- A. Sagittal suture
 - B. Coronal suture
 - C. Metopic suture
 - D. Squamosal suture
17. The pectoral girdle consists of:
- A. Sternum and scapula
 - B. Clavicle and scapula
 - C. Sternum and clavicle
 - D. Scapula and humerus
18. The hindbrain consists of:
- A. Occipital lobe and cerebellum
 - B. Cerebellum and diencephalon
 - C. Spinal cord, medulla and cerebellum
 - D. Medulla oblongata, pons and cerebellum
19. The main commissural fiber in the brain is the:
- A. Corpus callosum
 - B. Superior commissure
 - C. Anterior commissure
 - D. Posterior commissure
20. Failure of closure of the cranial neuropore leads to:
- A. Anencephaly
 - B. Hydrocephaly
 - C. Hydranencephaly
 - D. Chiari malformation

SECTION B: SHORT ANSWER QUESTIONS

[30 Marks]

1. State five (5) characteristics of epithelial tissues (5 marks)
2. Outline the events of the 2nd week of human embryonic development (5 marks)
3. Outline the arterial tree of the lower limb from the external iliac artery (5 marks)
4. State five (5) congenital anomalies of the integument system (5 marks)
5. Name the first five (5) cranial nerves and indicate the distribution of each (5 marks)
6. Outline the flow of cerebrospinal fluid (CSF) from the left lateral ventricle to the subarachnoid spaces (5 marks)

SECTION C: LONG ANSWER QUESTIONS

[20 Marks]

1. Use a labeled diagram to illustrate the cross-sectional anatomy of the spinal cord. Indicate the major tracts and nuclei of the spinal cord on the diagram (10 marks)
2. Explain the sources, clearance and abnormalities of the amniotic fluid (10 marks)