



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
END OF SEMESTER AUGUST 2025 EXAMINATIONS

COURSE CODE AND TITLE: BSN 112: Human Anatomy I

Online

DATE: AUGUST 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 (MCQs)

(20 MARKS)



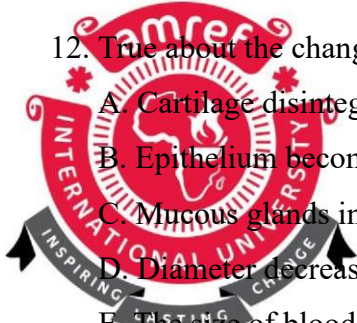
1. The phase of mitosis in which the sister chromatids separate and move toward opposite poles is: -
- A. Prophase
 - B. Metaphase
 - C. Anaphase
 - D. Telophase
 - E. Prometaphase
2. Regarding oogenesis and spermatogenesis: -
- A. Both are completed within the gonads
 - B. Both involve mitotic cell divisions
 - C. Both produce the same number of viable gametes
 - D. Oogenesis produces a smaller gamete
 - E. Spermatogenesis produces one polar body
3. The primary site of implantation is: -
- A. Cervix
 - B. Ovary
 - C. Fallopian tube
 - D. Uterus
 - E. Endometrium
4. The hormone produced by the syncytiotrophoblast is: -
- A. Oestrogen
 - B. Progesterone
 - C. Human chorionic gonadotropin (hCG)
 - D. Follicle-stimulating hormone (FSH)
 - E. Luteinizing hormone (LH)
5. Monozygotic twins are best described as: -
- A. Twins that develop from two eggs fertilized by two sperms
 - B. Twins that always share the same placenta and amniotic sac
 - C. Twins that share 100% of their genetic material
 - D. Twins that are always of different sexes
 - E. Twins that result from the splitting of a fertilized egg after day 12 of the embryonic development
6. The investigation not recommended during pregnancy is: -
- A. Urinalysis



- B. CT scan
- C. MRI scan
- D. Ultrasonography
- E. Full hemogram

The cell that is incorrectly matched with its function is: -

- A. Keratinocyte- Protective lining
 - B. Langerhan cell- Immune
 - C. Merkel s cell- mechanoreceptive
 - D. Fibroblast- stem cells
 - E. Melanocytes- melanin synthesis
8. The neuroglial cells that is responsible for myelination in the spinal cord is: -
- A. Astrocytes
 - B. Schwann cells
 - C. Microglial cells
 - D. Ependymal cells
 - E. Oligodendrocytes
9. The cell type that is responsible for bone resorption is: -
- A. Osteoprogenitor cells
 - B. Osteocytes
 - C. Osteoblasts
 - D. Osteoclasts
 - E. Fibroblasts
10. The lobe of the cerebrum is that correctly matched with its role is: -
- A. Parietal lobe- motor
 - B. Temporal lobe- memory
 - C. Occipital lobe- olfaction
 - D. Frontal lobe- vision
 - E. Frontal lobe- sensory
11. The structure that is part pf the respiratory portion of the airway is: -
- A. Principal bronchus
 - B. Tertiary bronchus
 - C. Respiratory bronchioles
 - D. Terminal bronchus
 - E. Trachea



12. True about the changes that occur along the airway: -

- A. Cartilage disintegrates
- B. Epithelium becomes simplified
- C. Mucous glands increase
- D. Diameter decreases
- E. The size of blood vessels remains the same

13. The anomaly characterized by obstruction of cerebral aqueduct causes which condition: -

- A. Hydrocephalus
- B. Anencephaly
- C. Spinal bifida
- D. Ectopic brain
- E. fracture skull

14. The hamstring muscles are located on which part of the body: -

- A. Anterior thigh
- B. Posterior thigh
- C. Anterior arm
- D. Posterior arm
- E. Lateral thigh

15. The type of joint that is the shoulder joint is: -

- A. Hinge joint
- B. Ball and socket joint
- C. Saddle joint
- D. Pivot joint
- E. Gliding joint

16. The chamber of the heart that pumps oxygenated blood to the systemic circulation is: -

- A. Right atrium
- B. Left atrium
- C. Right ventricle
- D. Left ventricle
- E. Coronary sinus

17. The structure that separates the two ventricles of the heart is the:

- A. Interatrial septum
- B. Interventricular septum
- C. Coronary sulcus



D. Myocardium

E. Endocardium

18. The somatic nervous system controls: -

A. Voluntary muscle movements

B. Involuntary muscle movements

C. Hormonal secretion

D. Sensory information processing

E. Blood pressure regulation

19. The cranial nerve that is primarily responsible for vision is: -

A. Optic nerve

B. Vagus nerve

C. Trigeminal nerve

D. Facial nerve

E. Glossopharyngeal nerve

20. The pacemaker of the heart is the: -

A. Atrioventricular (AV) node

B. Bundle of His

C. Purkinje fibers

D. Sinoatrial (SA) node

E. Left bundle branch

SECTION II: SHORT ANSWER QUESTIONS (SAQs)

(30 MARKS)

1. Briefly explain the phases of the cell cycle. (4 marks)
2. Name three (3) generalized and two (2) specialized connective tissues, and give one (1) example for each. (6 marks)
3. Outline the five (5) main types of synovial joints in the body, and state two (2) examples for each. (5 marks)
4. Outline five (5) differences between oogenesis and spermatogenesis. (5 marks)
5. Name six (6) major arteries of the human body and state their area of distribution. (6 marks)
6. Using a well-labeled diagram, illustrate the conducting and respiratory portions of the airway. (4 marks)



SECTION III: LONG ANSWER QUESTIONS (LAQs)

(20 MARKS)

1. Discuss embryology under the following headings:

- a) Three events of the 2nd week of intra-uterine development. (6 marks)
- b) Three events in the 3rd week of embryonic development. (6 marks)
- c) Describe one function and one fate of each of the following: (8 marks)
 - i. Amniotic membrane
 - ii. Yolk sac
 - iii. Allantois
 - iv. Chorionic cavity

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