



UNIVERSITY EXAMINATIONS 2024/2025
END OF TERM EXAMINATIONS FOR
THE BACHELOR OF SCIENCE IN NURSING
UNIT CODE: BSN 112

UNIT NAME: HUMAN ANATOMY I

STREAM: Y1S1 REGULAR

TIME: 2 hours

DATE: Tuesday 5th August 2025

START: 900AM

FINISH: 1100AM

READ INSTRUCTIONS CAREFULLY

1. The examination paper has **THREE (3)** sections. (Total 70 Marks)
 1. Answer **ALL** questions in sections **A, B** and **C**
2. Write your college number on all sheets of paper used
3. SECTION I: Multiple Choice Questions. (20 Marks)
4. SECTION II: Short Answer Questions. (30 Marks)
5. SECTION III: Long Answer Questions. (20 Marks)

SECTION I: Multiple Choice Questions.

(20 Marks)

1. A nurse is preparing to assess a patient and positions them in the anatomical position. Which of the following descriptions correctly defines this position and helps ensure consistency in physical assessments?
 - a) Standing erect, facing forward, arms at the sides with palms facing forward, and feet slightly apart
 - b) Lying on the back with knees bent and feet flat on the bed
 - c) Sitting upright with arms crossed and head turned to the side
 - d) Standing erect, facing backward, arms raised above the head, palms inward
2. During patient education, a nurse explains that mitochondria in cells are crucial because they:
 - a. Store genetic material for inheritance
 - b. Produce hormones like insulin and cortisol
 - c. Generate energy required for cell functions through ATP production
 - d. Detoxify harmful substances in the bloodstream
3. When administering an intramuscular injection in the deltoid muscle, a nurse palpates the acromion process and injects 2-3 fingerbreadths below it to avoid which of the following complications?
 - a) Damage to the femoral nerve
 - b) Injury to the axillary nerve
 - c) Piercing the carotid artery
 - d) Fracture of the ulna
4. Which embryonic germ layer gives rise to structures such as the epidermis, nervous system, and tooth enamel?
 - a) Mesoderm
 - b) Ectoderm
 - c) Endoderm
 - d) Trophoblast
5. A mother's intake of folic acid during early pregnancy helps prevent neural tube defects. This prevention is most effective during which period?
 - a. First 24 hours post-conception

- b. First 3 weeks of development
 - c. Third trimester
 - d. After birth
6. A patient reports shoulder pain when abducting the arm beyond 90 degrees. This motion primarily involves which muscle?
- a. Supraspinatus
 - b. Pectoralis major
 - c. Latissimus dorsi
 - d. Trapezius
7. The protein responsible for the waterproofing and protective function of the epidermis is:
- a. Collagen
 - b. Elastin
 - c. Keratin
 - d. Melanin
8. The layer of connective tissue that surrounds individual nerve fibers within a peripheral nerve is called the:
- a. Epineurium
 - b. Endoneurium
 - c. Perineurium
 - d. Myelin sheath
9. A patient develops a dilated right pupil and drooping eyelid. The nurse suspects involvement of which cranial nerve?
- a. CN II (Optic nerve)
 - b. CN III (Oculomotor nerve)
 - c. CN V (Trigeminal nerve)
 - d. CN VII (Facial nerve)
10. The precentral gyrus of the brain's cerebral cortex functions mainly for:
- a) Processing visual information
 - b) Initiating voluntary motor movements
 - c) Interpreting sensory input
 - d) Regulating heart rate

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

- a) Hinge joint
- b) Ball and socket joint
- c) Saddle joint
- d) Pivot joint

12. 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

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

- a) Interatrial septum
- b) Interventricular septum
- c) Coronary sulcus
- d) Myocardium

14. The somatic nervous system controls: -

- a) Voluntary muscle movements
- b) Involuntary muscle movements
- c) Hormonal secretion
- d) Sensory information processing

15. The pacemaker of the heart is the: -

- a) Atrioventricular (AV) node
- b) Bundle of His
- c) Purkinje fibers
- d) Sinoatrial (SA) node

16. Microvilli are the major structures that are affected in protein losing enteropathy. They are a characteristic feature of:

- a) Secretory cells
- b) Neurotransmitter cells
- c) Absorptive cells
- d) Fibroblasts

17. A medical student who has chronic lower respiratory infections seeks the advice of an ear nose and throat specialist. A biopsy from the student's respiratory epithelium reveals alterations in certain epithelial structures. This patient most likely has abnormal:

- a) Microvilli
- b) Desmosomes
- c) Cilia
- d) Hemidesmosomes

18. With regard to the coronary arteries

- a) Right arises from the posterior coronary sinus
- b) Left supplies the conducting system in most patients
- c) Right supplies the posterior descending branch in most patients
- d) There are no arteriolar anastomoses between left and right

19. Regarding bronchopulmonary segments, which is describe the right lung ?

- a) There are approximately 10 segments in each lung
- b) The lingual is divided into upper and lower segments
- c) There are 8-9 segments
- d) Has its own veins

20. All are contents of superior mediastinum *except*:

- a) Arch of aorta
- b) Pulmonary trunk
- c) Superior vena cava
- d) Brachiocephalic trunk

SECTION II: Short Answer Questions

(30 Marks)

1. Outline the levels of structural organization in the human body, and give a brief example of each (5 Marks).
2. Describe the layers of the epidermis and explain the function of each layer (5 Marks).
3. Discuss the pathway for taste sensation from the tongue to the brain (5 Marks).
4. Describe the internal features of right atrium (5 Marks).
5. Outline the gross characteristic of bronchopulmonary segment (5 Marks)
6. Outline the classification of joints in the human body citing examples (5 Marks)

1.

SECTION III: Long Answer Questions

(20 Marks)

1. A 52-year-old patient visits the hospital reporting blurred vision and difficulty seeing objects on one side of the visual field. The doctor suspects a problem somewhere along the visual pathway and asks the nurse to help assess the patient's visual function.

- a) Describe the pathway by which visual information travels from the retina to the visual cortex, mentioning the key structures involved. *(10 Marks)*
- b) Describe how a nurse can assess for visual disturbances during a neurological examination. *(10 Marks)*