



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FIRST TRIMESTER EXAMINATIONS

FOR THE DEGREE

OF

**BACHELOR OF SCIENCE IN PHYSIOTHERAPY/CLINICAL
MEDICINE**

(SPECIAL/SUPPLIMENTARY)

COURSE CODE: BSP 112/HCA 100

COURSE TITLE: HUMAN ANATOMY I

DATE: MONDAY 29TH AUGUST 2022

TIME: 8:00-10:00 AM

INSTRUCTIONS TO CANDIDATES

Answer all Sections

Sec A: Multiple Choice Questions (MCQ) (20 Marks)

Sec B: Short Answer Questions (SAQ) (40 Marks)

Sec C: Long Answer Questions (LAQ) (40 Marks)

TIME: Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over. ►

SECTION A: MULTIPLE CHOICE QUESTIONS

20 MARKS

1. Which one of the following type of a bone cell is correctly matched?
 - A. Osteoblasts - mature bone cells
 - B. Osteocytes - embryonic origin
 - C. Osteoclasts - resorb or break down the bone
 - D. Osteogenic - bone-forming cells
2. Which one of the following is not a type of a short bone?
 - A. Lunate
 - B. Trapezoid
 - C. Hamate
 - D. Sternum
3. Which one of the following best defines a fissure
 - A. Narrow opening between adjacent parts of bones for nerves and vessels
 - B. Shallow depression on a bone
 - C. Tube-like passageway on a bone
 - D. Hole or an opening
4. Which one of the following is not an example of uniaxial synovial joint?
 - A. Elbow joint
 - B. Radio-ulnar joint
 - C. Knee joint
 - D. Hip joint
5. Which one of the following anatomical planes divides the body into equal left and right parts?
 - A. Sagittal plane
 - B. Coronal plane
 - C. Transverse plane
 - D. Frontal plane
6. Trapezius muscle is innervated by which nerve?
 - A. C1-2
 - B. C3-4
 - C. C5-6
 - D. C7
7. Which one of the following muscles functions to protract the scapula
 - A. Serratus anterior
 - B. Rhomboid major
 - C. Rhomboid minor
 - D. Levator scapular
8. Joints that allow human bones to move in all directions are called
 - A. Fixed joints
 - B. Slightly movable joints
 - C. Hinge joints
 - D. Ball and socket joints
9. Bands of connective tissues that are made of collagen are called
 - A. Osteocyte
 - B. Chondrocytes

- C. Ligaments and tendons cartilages
 - D. Cartilages
10. Regarding the clavicle, all are correct EXCEPT:
- A. It is an example of the short bones.
 - B. It is the first bone to ossify in the fetal life.
 - C. It ossifies in membrane.
 - D. It is the commonly fractured bone.
11. The inferior surface of the clavicle gives attachment to all of the following EXCEPT:
- A. Conoid ligament.
 - B. Trapezoid ligament.
 - C. Costoclavicular ligament.
 - D. Pectoralis major muscle.
12. The bicipital groove of the humerus lodges (contains) the:
- A. Axillary artery.
 - B. Long head of the biceps.
 - C. Long head of the triceps.
 - D. Coracobrachialis.
13. The brachial plexus has:
- A. 8 rami (roots).
 - B. 5 trunks.
 - C. 6 divisions.
 - D. 4 cords.
14. The anterior wall of the axilla is formed by all of the following EXCEPT:
- A. Pectoralis major.
 - B. Teres major.
 - C. Pectoralis minor.
 - D. Subclavius.
15. One of the following muscles is not a rotator cuff muscle:
- A. Supraspinatus.
 - B. Infraspinatus.
 - C. Teres minor.
 - D. Teres major.
16. The bicipital aponeurosis passes obliquely deep to the:
- A. Brachial artery.
 - B. Median cubital vein.
 - C. Median nerve.
 - D. Radial nerve.
17. The lateral cutaneous nerve of the forearm is derived from the:
- A. C5.
 - B. C6.
 - C. C7.
 - D. C5, 6, 7
18. Regarding the median nerve, all are correct EXCEPT:
- A. Arises from both the medial and lateral cords of the brachial plexus.
 - B. It crosses the brachial artery at the insertion of the coracobrachialis.
 - C. In the cubital fossa, it lies lateral to the brachial artery.
 - D. It enters the hand in the carpal tunnel.
19. The ulnar nerve supplies all of the following muscles EXCEPT:
- A. Adductor pollicis.
 - B. Flexor pollicis longus.
 - C. Interossei muscles.
 - D. Hypothenar muscles.
20. The proximal row of the carpal bones consists of all of the following EXCEPT:

- A. Scaphoid.
- B. Lunate.
- C. Trapezium.
- D. Triquetral.

SECTION B: SHORT ANSWER QUESTIONS

40 MARKS

1. Discuss the classification of bones based on shape giving examples (10 Marks)
2. Synovial joint can be classified in various ways. Discuss this classification giving examples in each (10 Marks)
3. Give the nerve supply to the following muscles (10 Marks)
 - I. Coracobrachialis
 - II. Rhomboid minor
 - III. Trapezius
 - IV. Infraspinatus
 - V. Triceps
 - VI. Pronator teres
 - VII. Flexor carpi radialis
 - VIII. Gluteus maximus
 - IX. Gluteus medius
 - X. Psoas minor
4. Name any five muscle in the hip joint and their respective movement they elicit at the joint

SECTION C: LONG ANSWER QUESTIONS

40 MARKS

1. Discuss the characteristics of the following types of fibers (20 Marks)
 - a. Collagen fibers
 - b. Reticular fibers
 - c. Elastic fibers
2. Giving example, discuss the levels of human structural organization/complexity 20 marks