



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: +254(0) 799 529 958, +254(0) 799 529 959, +254 (0)712 524 293

Website: [www.must.ac.ke](http://www.must.ac.ke) Email: [info@mucst.ac.ke](mailto:info@mucst.ac.ke)

## UNIVERSITY EXAMINATIONS 2024/2025

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF  
SCIENCE IN CLINICAL MEDICINE AND COMMUNITY HEALTH DEVELOPMENT

### CCM 3129: HUMAN ANATOMY I

DATE: JANUARY 2025

TIME: 3 HOURS

**INSTRUCTIONS:** *Answer all questions in the booklet provided*

Ensure that all your answers are properly numbered

Section A: Short Answer Questions

Section B: Long Answer Questions

Section C: Multiple Choice Questions (MCQs)

### SECTION A: SHORT ANSWER QUESTIONS

1. Describe the origin, course, and termination of the brachial artery (6 Marks)
2. Describe the osteology of the scapula bone. (6 Marks)
3. Describe the articulating surfaces and the stability of knee joint (5 Marks)
4. Describe the boundaries and contents of the popliteal fossa (6 Marks)
5. Describe the origin, course, branches and termination of femoral artery. (6 Marks)
6. Outline five differences between thick and thin skin (5 Marks)
7. Write short notes on histology of cardiac muscle (6 Marks)



MUST is ISO 9001:2015 and



ISO/IEC 27001:2013 CERTIFIED

**SECTION B: (40MARKS) LONG ANSWER QUESTIONS (CHOOSE THE CORRECT ANSWER ONLY).**

1. Discuss the gross anatomy of the hip joint with respect to articulating surfaces, stability, blood supply, innervations, movement and applied anatomy (10 Marks)
2. Discuss the histology of pituitary gland (10 Marks)
3. Discuss the osteology of humerus bone (10 Marks)
4. Discuss the boundaries and content of femoral triangle (10 Marks)

**SECTION C: MULTIPLE CHOICE QUESTIONS (MCQS)**

1. Which of the following muscle has double innervation
  - a. Adductor magnus
  - b. Soleus
  - c. Gastrocnemius
  - d. Tibialis anterior
2. The adductor canal:
  - a. Contains the femoral artery and nerve
  - b. Ends distally in the adductor longus hiatus
  - c. Contains no muscular nerves
  - d. Always has the femoral artery lying between the saphenous nerve and the femoral vein
3. Which vessel is NOT involved in the trochanteric anastomosis?
  - a. Superior gluteal artery
  - b. Obturator artery
  - c. Lateral circumflex femoral artery
  - d. Medial circumflex femoral artery
4. The following are branches of the femoral artery except:
  - a. Superficial iliac artery
  - b. Superficial epigastric artery
  - c. Superficial external pudendal artery



- d. Middle genicular artery
- 5. Which of the following, regarding the great saphenous vein, is INCORRECT?
  - a. It is the longest vein in the body
  - b. It passes behind the medial malleolus
  - c. At the knee joint it lies ahand's breadth
  - d. The saphenous opening lies about 3cm below and lateral to the pubic tubercle
- 6. The femoral canal: Find the correct statement.
  - a. Is the lateral compartment of the femoral sheath
  - b. Lies medial to the pubic tubercle
  - c. Contains the femoral nerve
  - d. Is medial to the femoral vein
- 7. Which of the following structures lies within the knee joint?
  - a. Patellar ligament
  - b. Tibial collateral ligament
  - c. Fibular collateral ligament
  - d. Tendon of popliteus
- 8. Apatient who is unable to dorsiflex the foot following an injury. Which nerve is most likely to be damaged?
  - a. The deep branch of the common peroneal nerve
  - b. The sural nerve
  - c. The superficial branch of the common peroneal nerve
  - d. all the above
- 9. Osteoblasts refers to
  - a. Bone forming cells
  - b. Mature bone cells
  - c. Osteoprogenitor cells
  - d. Bone eating cells
- 10. The bony canal that has a narrow lumen containing delicate loose connective tissue in which blood vessels and nerve lie is called
  - a. Osteon canal



- b. Harversian canal
  - c. Osteoid canal
  - d. Portal canal
11. Which type of ossification occurs in the flat bones of the embryo skull
- a. Endochondral
  - b. Epiphyseal
  - c. Intramembranous
  - d. None of the above
12. Blood sinusoid of red pulp collect blood in;
- a. Red puip vein
  - b. Follicular arterial
  - c. Venous sinus
  - d. Penicillar arterial
13. What type of epithelial tissue lines the urinary bladder
- a. Simple squamous
  - b. Simple cuboidal
  - c. Simple columnnar
  - d. Transitional
14. What type of epithelial tissue is associated with goblet cells
- a. Simple squamous
  - b. Simple cuboidal
  - c. Simple columnnar
  - d. Transitional
15. Simple squamous epithelial cells that line blood vessels are called
- a. Mesothelium
  - b. Pseudostratified
  - c. Transitional
  - d. Endothelium
16. The following terms are associated with sweat glands except
- a. Merocrine



- b. Holocrine
  - c. Apocrine
  - d. Eccrine
17. In the adrenal gland, catecholamines are produced in the
- a. Zona granulosa
  - b. Zona fascicularis
  - c. Medulla
  - d. Zona reticularis
18. The proximal row of the carpal bones consists of all of the following EXCEPT:
- a. Scaphoid.
  - b. Lunate.
  - c. Trapezium.
  - d. Pisiform.
19. The median nerve supplies all of the following muscles EXCEPT:
- a. Flexor carpi ulnaris.
  - b. Flexor carpi radialis.
  - c. Flexor digitorum superficialis.
  - d. Palmaris longus.
20. Structure crossing superficial to the flexor retinaculum:
- a. Median nerve.
  - b. Ulnar nerve.
  - c. Flexor digitorum superficialis.
  - d. Flexor pollicis longus.

