



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN PHARMACEUTICAL TECHNOLOGY

AMD 2101 : HUMAN ANATOMY I

SPECIAL/ SUPPLIMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

DATE: Pick Date Sep 2018

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of three Section(s). Attempt All questions in section A and B and any two questions in section C.

Circle the correct answer in section A.

SECTION A (40 MKS)

1. The matrix of connective tissue is composed of:
 - a. cells, fibers and ground substance
 - b. cells and fibers
 - c. fibers and ground substance
 - d. cells and ground substance
2. Which of the following heals the quickest after injury:
 - a. bone
 - b. epithelium
 - c. cartilage
 - d. muscle
3. Which of the following does not describe skeletal muscle tissue fibers:
 - a. striated
 - b. voluntary

- c. multinucleate
 - d. branched
4. Endochondral and intramembranous are two mechanisms of:
 - a) bone remodeling
 - b) embryonic skeletal ossification
 - c) controlling blood calcium levels
 - d) cartilage synthesis
 5. Which of the following is not a cranial suture:
 - a) epiphyseal
 - b) lambdoidal
 - c) coronal
 - d) sagittal
 6. Which of the following is the most serious or life-threatening:
 - a) deviated nasal septum
 - b) sinusitis
 - c) damaged cribriform plate
 - d) damaged or cleft palate
 7. The "Hunchback" of Notre Dame probably suffered from------.
 - a) cleft palate
 - b) scoliosis
 - c) kyphosis
 - d) lordosis
 8. A ligament running along the side of the knee joint is a:
 - a) cruciate
 - b) bursae
 - c) collateral
 - d) patellar
 9. The part of the upper limb between the elbow and the wrist is called the
 - a. arm.
 - b. forearm.
 - c. hand.
 - d. inferior arm.
 10. Which of the following is true about the Yellow marrow ?
 - a. found mostly in children's bones.
 - b. found in the epiphyseal plate.
 - c. important for blood cell production.
 - d. is mostly adipose tissue.
 11. Approximately what percentage of body heat is generated by muscle tissue:
 - a) 15%
 - b) 30%
 - c) 55%
 - d) 85%

12. Which of the following can be found in cartilage but not bone tissue:
- lacunae
 - protein fibers
 - blood vessels
 - chondroitin
13. Read the following statements carefully. Which of the following is/are INCORRECT statements:
- 1) Cartilage heals slower than skin because cartilage is a deeper tissue.
 - 2) The inside lining of the intestine has a large surface area because of the presence of cilia.
 - 3) Adipose is a type of connective tissue because that is where fat is stored.
- all are correct statements
 - only #1 and #2 are incorrect
 - only #2 and #3 are incorrect
 - all are incorrect statements .
14. Which of the following lies fully ipsilateral to the left iliac region:
- epigastric region
 - left hypochondriac region
 - right inguinal region
 - hypogastric region
15. What is the function of serous membranes:
- to prevent fluid loss from an organ
 - to reduce friction between internal organs
 - to circulate blood around the organ
 - to conserve heat within the organ
16. Which of the following bones is considered a sesamoid bone:
- sternum
 - ethmoid
 - femur
 - patella
17. These two components in bone are responsible for the hardness and pliability of bone:
- osteoclasts & collagen
 - mineralized salts & osteocytes
 - mineralized salts & collagen
 - collagen & elastic fibers
18. Which of the following is true of the Cardiac Muscle?
- Voluntary and Spindle Shaped
 - Voluntary and Striated
 - Involuntary and Spindle Shaped
 - Involuntary and Striated
19. Which of the following is not characteristic of all synovial joints?
- meniscus

- b. Artic cartilage
 - c. A joint capsule
 - d. Synovial fluid
20. Which of the following is not part of the axial skeleton?
- a) Sternum
 - b) Phallanges
 - c) Vertebrae
 - d) Ribs
21. Which of the following is an example of applied physiology:
- a. measuring the length of the femur on a fetus using ultrasound
 - b. locating an injury to a tendon in the shoulder using CT imaging
 - c. describing the process of how a toxin interferes with nerve impulse conduction
 - d. identifying the types of cells found in a biopsy sample of lung tissue
22. The elbow is ____ to the wrist:
- a. distal
 - b. lateral
 - c. ventral
 - d. proximal
23. The heart is ____ to the lungs:
- a. superior
 - b. dorsal
 - c. medial
 - d. lateral
24. Histology is the study of-----.
- a. cells and membranes
 - b. skin
 - c. organs and organ systems
 - d. tissues
25. The dense connective tissue covering outer surface of bone diaphyses is termed the -----
- a) perichondrium
 - b) periosteum
 - c) endosteum
 - d) exofibrium
26. A fracture in the shaft of a long bone would be a break in the -----.
- a) epiphysis
 - b) metaphysis
 - c) diaphysis
 - d) epiphyseal plate

27. Yellow marrow consists of-----.
- a) osteoprogenitor cells
 - b) blood cell progenitor cells
 - c) hyaline cartilage
 - d) adipose
28. These structures are at the center of compact bone lamellae and carry blood vessels along the bone length:
- a) Haversian canals
 - b) canaliculi
 - c) osteocytes
 - d) lacunae
29. Individual muscle cells are known as:
- A.myofibrils
 - B.muscles
 - C.muscle fibers
 - D.filaments
30. Cells of the _____ are keratinized and dead.
- a) stratum spinosum
 - b) stratum basale
 - c) stratum corneum
 - d) stratum granulosum
31. The clear, structureless gel in a cell is its
- a) nucleoplasm.
 - b) protoplasm.
 - c) neoplasm.
 - d) cytosol
32. Transitional epithelium is found in
- a) the urinary system.
 - b) the respiratory system.
 - c) the reproductive system.
 - d) all of the above.
33. All of the following are groups of vertebrae except for _____,
- a) thoracic
 - b) cervical
 - c) lumbar
 - d) pelvic
34. Which of the following applies to Skeletal Muscle ?

- a) Voluntary and Spindle Shaped
- b) Voluntary and Striated
- c) Involuntary and Spindle Shaped
- d) Involuntary and Striated

35. Which of the following is not found in the cell membrane?

- a. Cholesterol
- b. Phospholipids
- c. Proteins
- d. Galactose

36. The type of synovial joint in which angular movement is limited to a single axis is a.

- a. Hinge joint
- b. Ball and socket joint
- c. Saddle joint
- d. Ellipsoidal joint

37. The component bones of the pectoral girdle include

- a. ilium and pubis
- b. clavicle and scapula
- c. scapula and humerus
- d. radius and ulna

38. The facial bone that is not paired is the

- a. lacrimal
- b. vomer
- c. palatine
- d. maxillae

39. Which of the following is the odd one out?

- a. Manubrium
- b. Xiphoid process
- c. Patella
- d. Ribs

40. A structure composed of two or more cells is termed:

- a. organ
- b. serous membrane
- c. tissue
- d. organ system

SECTION B (40MKS)

41. Name the joints of the upper limb(4mks)

42. Give characteristics of epithelial tissue (4 mks)

43. What are the two types of stratified squamous epithelia and how do they differ? (4 mks)

44. Illustrate the long bone (4MKS)
45. Name the part of a synovial joint with each of the following functions:
46. Name the any FOUR braincase bones that occur singly (4 mks)
47. State the number of each type of vertebra. (4 mks)
48. Differentiate the membranous epithelia found in the human body(4mks)
49. What are the two types of stratified squamous epithelia and how do they differ? (4 mks)
50. Illustrate the transitional epithelium (4 mks)

SECTION C (40 MARKS)

51. With the aid of a properly labelled diagram, show the bones that form the appendicular skeleton. (20 mks)
52. A. Illustrate the osteon(10mks)
 - b. Describe the Body cavities and their membranes mentioning organs found within the cavities(10mks)
53. a. Illustrate the planes of reference used in the study of anatomy (10mks)
 - b. Illustrate the classical Synovial joint (diarthroses)(10MKS)