



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR:
DPT16S
AMD 2102 : HUMAN ANATOMY I
END OF SEMESTER EXAMINATION
SERIES: DECEMBER 2016
TIME: 2 HOURS
DATE: Pick Date Dec 2016

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 (40MKS)

1. Skeletal muscle is described by all of the following EXCEPT:
 - a) striated
 - b) voluntary
 - c) multinucleate
 - d) autorhythmic
- 2) The walls of hollow organs and some blood vessels contain this muscle tissue:
 - a) striated
 - b) skeletal
 - c) cardiac
 - d) smooth
- 3) Which of the following is unique to cardiac muscle tissue:
 - a) is involuntary
 - b) is non-striated
 - c) has intercalated discs
 - d) contains smooth muscle tissue
- 4) Approximately what percentage of body heat is generated by muscle tissue:
 - a) 15%
 - b) 30%
 - c) 55%
 - d) 85%

- 5) A muscle fascicle is a:
- bundle of myofibrils
 - bundle of connective tissue
 - bundle of muscle fibers
 - muscle cell
6. Which of the following can be found in cartilage but not bone tissue:
- lacunae
 - protein fibers
 - blood vessels
 - chondroitin
7. A tissue viewed under the microscope displays cells in little holes, densely packed fibers and no blood vessels. This describes:
- dense regular connective tissue
 - hyaline cartilage
 - fibrocartilage
 - adipose tissue
8. Which of the following characteristics can be used to describe epithelial tissue:
- it is derived from mesenchyme
 - sarcomas originate from it
 - it is well vascularized
 - it forms the glands of the body
9. The serous membrane lining the surface of the lung is the:
- parietal pleura
 - visceral peritoneum
 - visceral pleura
 - peritoneal pleura
10. A structure composed of two or more tissues is termed:
- organ
 - serous membrane
 - complex tissue
 - organ system
11. Which type of microscope is able to view 3D images?
- transmission electron microscope (TEM)
 - Electron microscope
 - Light microscope
 - scanning electron microscope
12. The visceral pleura:
- is the membrane lining surface of the lungs
 - is the membrane lining the wall of the thoracic cavity
 - is the fluid around the lungs
 - is the thinnest portion of the peritoneum

13. The anatomical position is characterized by all of the following except:
- palms facing posterior
 - thumbs pointing laterally
 - face pointing anteriorly
 - body standing upright
14. Which of the following lies fully ipsilateral to the left iliac region:
- epigastric region
 - left hypochondriac region
 - right inguinal region
 - hypogastric region
15. A vertical plane through the body dividing it into right and left is termed:
- sagittal
 - lateral
 - transverse
 - frontal
16. Which of the following is an example of applied physiology:
- measuring the length of the femur on a fetus using ultrasound
 - locating an injury to a tendon in the shoulder using CT imaging
 - describing the process of how a toxin interferes with nerve impulse conduction
 - identifying the types of cells found in a biopsy sample of lung tissue
17. The elbow is ____ to the wrist:
- distal
 - lateral
 - ventral
 - proximal
18. The heart is ____ to the lungs:
- superior
 - dorsal
 - medial
 - lateral
19. 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
20. Histology is the study of-----.
- cells and membranes
 - skin
 - organs and organ systems
 - tissues

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21. The dense connective tissue covering outer surface of bone diaphysis is termed the -----

- a) perichondrium
- b) periosteum
- c) endosteum
- d) exofibrium

22) Which of the following bones is considered a sesamoid bone:

- a) sternum
- b) ethmoid
- c) femur
- d) patella

23) These two components in bone are responsible for the hardness and pliability of bone:

- a) osteoclasts & collagen
- b) mineralized salts & osteocytes
- c) mineralized salts & collagen
- d) collagen & elastic fibers

24) A fracture in the shaft of a long bone would be a break in the -----.

- a) epiphysis
- b) metaphysis
- c) diaphysis
- d) epiphyseal plate

25) Yellow marrow consists of-----.

- a) osteo-progenitor cells
- b) blood cell progenitor cells
- c) hyaline cartilage
- d) adipose

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26) 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

27. Individual muscle cells are known as:

- A. myofibrils
- B. muscles
- C. muscle fibers
- D. filaments

28. Cells of the ____ are keratinized and dead.

- A. stratum spinosum
- B. stratum basale
- C. stratum corneum
- D. stratum granulosum

29. The clear, structure less gel in a cell is its

- A. nucleoplasm.

- B. protoplasm.
- C. neoplasm.
- D. cytosol

30. Transitional epithelium is found in

- A. the urinary system.
- B. the respiratory system.
- C. the reproductive system.
- D. all of the above.

31. All of the following are groups of vertebrae except for ____,

- A. thoracic
- B. cervical
- C. lumbar
- D. pelvic

32. 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

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33. Which of the following is true of the Cardiac Muscle?

- A) Voluntary and Spindle Shaped
- B) Voluntary and Striated
- C) Involuntary and Spindle Shaped
- D) Involuntary and Striated

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

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

35. Which of the following is not characteristic of all synovial joints?

- A. meniscus
- b. Artic cartilage
- c. A joint capsule
- d. Synovial fluid

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 not part of the axial skeleton?

- A. Sternum
- B. Phallanges
- C. Vertebrae
- D. Ribs

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

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

SECTION B (40MKS)

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

42. State the principal types of tissue (4mks)
43. Give characteristics of epithelial tissue (4 mks)
44. What are the two types of stratified squamous epithelia and how do they differ? (4 mks)
45. Illustrate the multicellular glands as classified according to structure(4 mks)
46. Illustrate the transitional epithelium (4 mks)
47. Illustrate the long bone (4 mks)
48. Name the part of a synovial joint with each of the following functions(4 mks):
49. Illustrate the nucleus(4 mks)
50. . Describe the classification of bones giving relevant examples

SECTION C (40 MARKS)

51. Illustrate the various classes of the membranous epithelia (20mks)
52. With the aid of a properly labelled diagram, show the bones that form the appendicular skeleton. (20 mks)
53. a Illustrate the classical Synovial joint (diarthroses)(10MKS)
b.Illustrate the different types of muscles 10 mks)

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