

## **TECHNICAL UNIVERSITY OF MOMBASA**

#### Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

DIPLOMA IN MEDICAL LABORATORY SCIENCES (DMLS 12 S)

### AML 2140: HUMAN ANATOMY & PHYSIOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

**SERIES:** February 2013

TIME: 2 HOURS

#### **INSTRUCTIONS:**

You should have the following for this examination

- Answer booklet

This paper consists of **TWO** sections.

Answer all questions in **Section A** and **B.**  $\frac{1}{2}$  marks deducted for any wrong answer in **Section A**.

# This paper consists of **6 PRINTED** pages SECTION A (40MARKS)

- 1. The organelle response for protein synthesis is the
  - a) Mitochondira
  - b) Endoplasmic reticulum
  - c) Ribosomes
  - d) Golgi Apparatus
- 2. The systolic blood pressure is a measurement of
  - a) Atnal relaxation
  - b) Atnal contraction
  - c) Ventricular relaxation
  - d) Ventricular contraction
- 3. Diastolic blood pressure is a measure of the pressure exerted against the walls of the :
  - a) Veins while the heart of at rest
  - b) Veins during contraction of the heart
  - c) Arteries while the left ventricle is at rest
  - d) Arteries during contraction of the heart
- 4. Which of the following organs is not working correctly when a patient has junk of the skin and units of the eyes?
  - a) Kidneys
  - b) Liver
  - c) Heart
  - d) Lungs
- 5. During expiration the pressure inside the lungs will
  - a) Be greater than air outside the body
  - b) Cause the alveon to open
  - c) Force the diaphragm down
  - d) Increase the chest diameter
- 6. The topographic term distal means
  - a) Near the trunk
  - b) Near appoint of attachment
  - c) Toward the center of the body
  - d) Near to the free end of the extremely
- 7. The clear structure less gel in a cell is its
  - a) Neoplasm
  - b) Protoplasm
  - c) Cytoplasm

- d) Cytosol
- 8. The terminal portion of the small intestine is the
  - a) Duodenum
  - b) Ileum
  - c) Caecum
  - d) Jejumun
- 9. The superior surface of each kidney is borchited by
  - a) Spleen
  - b) Transverse colon
  - c) Parathyroid gland
  - d) Adrenal gland
- 10. The small ductless gland found in the brain at the roof of the third venticile is:
  - a) Hypothalamus
  - b) Hypothesis
  - c) Pituitary gland
  - d) Pinal gland
- 11. Which of the following organs contain ciliated epitulia
  - a) Urinary bladder
  - b) Utenin tubes
  - c) Respiratory tracts
  - d) Oral cavity
- 12. The hormones produced by the posterior lobe of the pituitary gland are;
  - a) Growth hormone
  - b) Oxytocin
  - c) Prolactin
  - d) Antidiuretic hormone
- 13. Which of the following are not structure associated with digestive system
  - a) Liver
  - b) Spleen
  - c) Gall bladder
  - d) Kidneys
- 14. The following muscles are not belong around in the should and in the upper lins
  - a) Deltoid muscles
  - b) Teres major
  - c) Lattismus dorsi
  - d) Temporalis
- 15. The major neunotransmitter present in the neuromuscular junction is:
  - a) Synapse
  - b) Cerebospinal fluid
  - c) Acetylcholin

- d) Adrenalin
- 16. Which of the following are facial bone?
  - a) Occipital bone
  - b) Temporal bone
  - c) Frontal bone
  - d) Lachrymal bone

#### 17. The following are constituents of intestinal juice except

- a) Water
- b) Enterokinan
- c) Bile
- d) Mineral soils

#### 18. Which structure is found at the back of the nasal cavity

- a) Larynx
- b) Orophrynx
- c) Nasopharynx
- d) Laryngopharynx

#### 19. Which of the following structures are not found in the upper airway

- a) Alveon
- b) Bronchus
- c) Pharynx
- d) Nasopharynx
- 20. Inhalation occurs when
  - a) The diaphragm contracts
  - b) Diaphram moves downward
  - c) Ribs more upward & downward
  - d) Ribs move to a normal resting position
- 21. The chief component of connective tissues and bone that is lost as people age is
  - a) Ligaments
  - b) Tendons
  - c) Collagen
  - d) Muscle
- 22. A reduction in the amount of born mass leading to fractures after minimal trauma is knonw as:
  - a) Osteoporosis
  - b) Arthritis
  - c) Tendinitis
  - d) Osthosclerosis
- 23. A disease characterized by hardening and thickening of the arterial walls is called
  - a) Aneurysm
  - b) Atheroscierosis
  - c) Arteritis

- d) Vasodilation
- 24. The left atrium of the heart receives blood that is :
  - a) Oxygenated and coming from the lungs
  - b) Oxygenated and coming from the vena cara
  - c) Law in oxygen and coming from the lungs
  - d) Low in oxygen and coming from the vena cara
- 25. What is the difference between angina pain and myocardial in function pain
  - a) There is no difference
  - b) The pain with myocardial infarction kill decrease at rest
  - c) The pain with angina will increase at rest
  - d) The pain with angina will decrease at rest
- 26. The lower jake bone is the known as
  - a) Zygomatia
  - b) Maxilla
  - c) Manalible
  - d) Mastoid

#### 27. Which muscle is characterized by averal nuclei

- a) Cardiac
- b) Skiletal
- c) Smooth
- d) Musculogeric
- 28. Which of the following is considered as a flat bone
  - a) Patella
  - b) Vetebrae
  - c) Temporal born
  - d) Mastoid
- 29. The type of epithelium found in dry surfaces subject to wear and tear is:
  - a) Transitional epithelium
  - b) Keratinised stratified
  - c) Columnar simple
  - d) Squamous
- 30. The study of how parts of the body work and ways in which they cooperate together to maintain life is:
  - a) Anatomy
  - b) Pathology
  - c) Physiology
  - d) Gross anatomy
- 31. The most abundant tissue in the human body is the:
  - a) Epithelial tissues
  - b) Muscle tissue

- c) Nerve tissue
- d) Conduction tissue

#### 32. The two anatomical divisions of the nervous system an:

- a) Peripheral
- b) Autonomic
- c) Central
- d) Somatic

#### 33. Transitional epithelium is found in :

- a) Urinary system
- b) Respiratory system
- c) Reproductive system
- d) All of the above

#### **SECTION B ESSAY (60MARKS) Answer all questions**

#### **Question ONE**

a)	Draw a diagram of the nephron	(7marks)
b)	Describe the process of urine formation	(13marks)

#### **Ouestion TWO**

a) List the various contents of urine. (5marks) b) Discuss the process of internal respiration

c) List to various parts of the respiratory tract

#### **Question THREE**

Discuss the various subdivisions of the epithelial tissue.

(10marks) (5marks)

(20marks)