



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**.

- d) Cytosol
8. The terminal portion of the small intestine is the
- Duodenum
 - Ileum
 - Caecum
 - Jejunum
9. The superior surface of each kidney is bordered by
- Spleen
 - Transverse colon
 - Parathyroid gland
 - Adrenal gland
10. The small ductless gland found in the brain at the roof of the third ventricle is:
- Hypothalamus
 - Hypothesis
 - Pituitary gland
 - Pineal gland
11. Which of the following organs contain ciliated epithelia
- Urinary bladder
 - Uterine tubes
 - Respiratory tracts
 - Oral cavity
12. The hormones produced by the posterior lobe of the pituitary gland are;
- Growth hormone
 - Oxytocin
 - Prolactin
 - Antidiuretic hormone
13. Which of the following are not structures associated with the digestive system
- Liver
 - Spleen
 - Gall bladder
 - Kidneys
14. The following muscles do not belong around the shoulder and in the upper limb
- Deltoid muscles
 - Teres major
 - Lattismus dorsi
 - Temporalis
15. The major neurotransmitter present in the neuromuscular junction is:
- Synapse
 - Cerebrospinal fluid
 - Acetylcholine

- d) Adrenalin
16. Which of the following are facial bone?
- Occipital bone
 - Temporal bone
 - Frontal bone
 - Lachrymal bone
17. The following are constituents of intestinal juice except
- Water
 - Enterokinan
 - Bile
 - Mineral soils
18. Which structure is found at the back of the nasal cavity
- Larynx
 - Orophrynx
 - Nasopharynx
 - Laryngopharynx
19. Which of the following structures are not found in the upper airway
- Alveon
 - Bronchus
 - Pharynx
 - Nasopharynx
20. Inhalation occurs when
- The diaphragm contracts
 - Diaphram moves downward
 - Ribs more upward & downward
 - Ribs move to a normal resting position
21. The chief component of connective tissues and bone that is lost as people age is
- Ligaments
 - Tendons
 - Collagen
 - Muscle
22. A reduction in the amount of born mass leading to fractures after minimal trauma is knoww as:
- Osteoporosis
 - Arthritis
 - Tendinitis
 - Osthosclerosis
23. A disease characterized by hardening and thickening of the arterial walls is called
- Aneurysm
 - Atheroscierosis
 - Arteritis

- d) Vasodilation
24. The left atrium of the heart receives blood that is :
- Oxygenated and coming from the lungs
 - Oxygenated and coming from the vena cava
 - Low in oxygen and coming from the lungs
 - Low in oxygen and coming from the vena cava
25. What is the difference between angina pain and myocardial infarction pain
- There is no difference
 - The pain with myocardial infarction will decrease at rest
 - The pain with angina will increase at rest
 - The pain with angina will decrease at rest
26. The lower jaw bone is known as
- Zygomatic
 - Maxilla
 - Mandible
 - Mastoid
27. Which muscle is characterized by several nuclei
- Cardiac
 - Skeletal
 - Smooth
 - Musculogenic
28. Which of the following is considered as a flat bone
- Patella
 - Vertebrae
 - Temporal bone
 - Mastoid
29. The type of epithelium found in dry surfaces subject to wear and tear is:
- Transitional epithelium
 - Keratinised stratified
 - Columnar simple
 - Squamous
30. The study of how parts of the body work and ways in which they cooperate together to maintain life is:
- Anatomy
 - Pathology
 - Physiology
 - Gross anatomy
31. The most abundant tissue in the human body is the:
- Epithelial tissues
 - Muscle tissue

- c) Nerve tissue
- d) Conduction tissue

32. The two anatomical divisions of the nervous system are:

- 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)**

Question TWO

- a) List the various contents of urine. **(5marks)**
- b) Discuss the process of internal respiration **(10marks)**
- c) List to various parts of the respiratory tract **(5marks)**

Question THREE

Discuss the various subdivisions of the epithelial tissue. **(20marks)**