



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL
LABORATORY SCIENCES

BMLS 13S (Mid entry)

AML 4241: HUMAN ANATOMY II

SPECIAL/SUPPLEMENTARY EXAMINATION

MARCH 2014 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections A and B

Section A –Contains MCQS, any wrong response will be penalised. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. The vocal cords are supplied by which clarial nerve
 - a) Hypoglosal nerve
 - b) Vagus nerve
 - c) Facial nerve
 - d) Accessory nerve
 - e) Vestibulo choclea nerve

2. The pharynx is divided into the following except
 - a) Nasopharynx
 - b) Layngopharynx
 - c) Hypopharynx
 - d) Prophasynx
 - e) Trachespharynx

3. The function of the nose includes the following except
 - a) Humidification of the inhaled air
 - b) Gaseous exchange with the alveoli
 - c) Purification of the inhaled air
 - d) Warming of the inhaled air
 - e) Olfaction

4. Which statement is true about the anatomical organization of the bronchi
 - a) The primary bronchi supplies the bronchi pulmonary segment
 - b) The left lung has three secondary bronchi and the right lung has two
 - c) The primary bronchus divides into secondary bronchus which further divides into segmental bronchi
 - d) The segmental bronchi are also known as lobar bronchi
 - e) The secondary bronchi gives rise to several respiratory bronchioles

5. Which statement about the respiratory system is false
 - a) The pulmonary alveolus is the basic structural unit of gas exchange in the lung
 - b) The right lung has three lobes and is much larger
 - c) The trachea extends from C6 – T5
 - d) The tracheal rings are continuous cartilaginous rings encompassing the trachea both anteriorly and posteriorly
 - e) The larynx is a common site for foreign bodies

6. The oropharynx:
 - a) Is immediately posterior to the oral cavity
 - b) Is purely a digestive pathway
 - c) Inferior boundary is the thyroid cartilage
 - d) Has no lymphatic organs
 - e) The superior boundary is the nose

7. The thoracic skeleton is made up of the following bones
 - a) Ribs, sternum, clavicle and the hyoid bone
 - b) Ribs, clavicle, thyroid cartilage and the humerus
 - c) The scapula, Ribs, Sternum and the hyoid bone
 - d) The sternum, clavicle, humerus and hyoid bones
 - e) The ribs, sternum, clavicle and scapula

8. Which statement is true about the thoracic cavity/skeleton
 - a) The lateral compartments are occupied by the lungs
 - b) The central compartment is occupied with blood vessels
 - c) The true ribs are the 8th / 9th and 10th ribs
 - d) Xiphoid process does not signify or mask any anatomical structures
 - e) The sternum is made up of manubrium and Xiphoid process

9. Which statement is false
- The superior thoracic aperture is also known as the anatomical thoracic inlet
 - The inferior thoracic aperture is bound posteriorly by the 12th thoracic vertebra
 - The thoracic outlet is bound inferiorly by the diaphragm
 - The thoracic outlet is more spacious than the thoracic inlet
 - The thoracic inlet is bound posteriorly by the 12th thoracic vertebrae
10. The bed of the breast is formed by:
- Pectoralis fascia overlying pectoralis major
 - Scia covering latissimus dorsi
 - Fascia covering the diaphragm
 - Fascia covering the abdominalis anterior
 - Fascia covering the triceps
11. Retromammary space is defined as
- Space between the areolas and the lactiferous ducts
 - Space between the breast and pectoralis fascia
 - Space between the serratus anterior and the breast
 - Space between skin and the fat lobules
 - Space between the fat lobules and the suspensory ligaments
12. Which of the below statements is true
- The areolae is devoid of any anatomical structure
 - The ripples composed of smooth muscle fibers
 - The ripples composed of smooth muscle fibers
 - Mammary glands are modified endocrine glands
 - The alveoli are single anatomical structures
13. Which statement is false about the apex of the heart:
- It's formed by the infundibular part of the left ventricle
 - Lies posterior to the left 5th intercostal space
 - Remains motionless during cardiac cycle
 - It's the most active portion of the heart during cardiac cycle
 - It's the point of auscultation for the apex beat
14. The atria receive blood from the following which statement is true:
- Pulmonary artery, superior vena cava, inferior vena cava
 - Superior vena cava, coronary sinus and pulmonary artery
 - Vena cavae, coronary sinus and aorta
 - Aorta, pulmonary veins and coronary sinus
 - Pulmonary veins, coronary sinus and vena cavae

15. Which statement below is false about the cardiac valves
- They enforce bidirectional flow through the heart
 - The atrioventricular valves are the tricuspid and mitral
 - The semilunar valves are the pulmonary and aortic
 - The valves open and close in response to pressure differences
 - The valves are provided for structural support via the chordae tendinae and papillary muscles
16. The brachiocephalic veins
- Formed by the union of the external jugular vein and subclavian veins
 - Formed anterior to the sternoclavicular joint
 - Formed by the union of the internal jugular and subclavian veins
 - The brachiocephalic veins unite to form the inferior
 - The brachiocephalic veins are both of equal size and length
17. The ascending aorta
- Begins at the aortic orifice
 - Its branches are the common carotid vessels
 - Its extra pericardial
 - It's a control of the superior mediastinum
 - It's the point of origin for most vessels
18. The superior vena cava
- Returns all blood from below the diaphragm
 - It joins the lungs and the heart
 - It enters the left atrium of the heart
 - It traverses the entire mediastinum
 - It exits the heart from the right atrium
19. The urethra
- Is short muscular duct that runs from renal pelvis to the bladder
 - It has areas of constriction as it runs over the pelvic brim
 - In females it's a short duct that runs from the bladder neck to the external urethral orifice
 - Its rigid and longer in females as compared to the male urethra
 - The male urethra functions purely as an urinary structure
20. In regards to the macroscopic internal structure of the kidney which statement is true
- Renal pelvis is the inner most structure which drains into the calyces
 - The major calyces drain into the minor calyces
 - The renal columns are found in the medulla of the kidney
 - The minor calyces drain into the major calyces which drain into the renal pelvis
 - A renal sinus is the space which is occupied by only fat

21. Which below is true about the kidney
- a) The superior medial relation of the both the right and left kidney varies
 - b) The support of the kidney renal fascia, perinephric and paranephric fat.
 - c) The kidney is a fixed organ with no mobility
 - d) The renal fascia is adherent inferiorly
 - e) The kidney extends from L3 to L6
22. Which below is an organ found in the right hypochondrial region :
- a) Liver
 - b) Stomach
 - c) Spleen
 - d) Kidney
 - e) Bladder
23. Which statement is false about the abdominal wall:
- a) Its made up of 5 muscles bilaterally paired
 - b) Its subdivided into the anterolateral wall and posterior wall
 - c) The anterolateral wall extends superiorly to the cartilages of the 7th – 10th ribs and the Xiphoid process
 - d) The vertical muscles are the rectus abdominis and pyramidal
 - e) The anterolateral abdominal wall is rigid
24. The esophagus has 3 constrictions. Which below is one of the anatomic constrictions.
- a) Abdominal constriction where it enters the stomach
 - b) Pelvic constriction where it assess the pelvic brain
 - c) Thoracic constriction where its crossed by the arch of the aorta and left main bronchus
 - d) Cervical constriction where it crosses the trachea
 - e) Intestinal constriction at the fungus of the stomach
25. Which statement is true about the small intestines:
- a) The duodenum is the largest and last part
 - b) The jejunum is the widest and most fixed part
 - c) There is no clear demarcation between the jejunum and ileum
 - d) The ileum begins at the ileocecal junction
 - e) There is no junction between the jejunum and ileum
26. The spleen :
- a) It is a major endocrine organ
 - b) Its located in the left lumbar region
 - c) Its an organ that lacks a capsule
 - d) It forms part of the bed of the stomach
 - e) It has no relation with the kidney

27. The gall bladder

- a) Lies in a fossa for the gall bladder on the visceral surface of the liver
- b) It has only 2 parts: fungus and neck
- c) Its not attached to the liver
- d) The common hepatic duct connects directly to the neck of the gall bladder
- e) The blood supply is via the hepatic cutlery

28. Which statement below is true :

- a) The right adrenal gland is crescent in shape
- b) The pituitary gland is housed in the sella turcica
- c) The pituitary gland lies between the optic chiasma
- d) The adrenal gland produces the sex hormones
- e) The sphenoidal air sinuses are superior relation to the pituitary gland

29. Which below is true

- a) The thyroid gland is posterior to the trachea
- b) The vascular supply of the thyroid gland includes the superior, middle and inferior thyroid arteries
- c) The thyroid in a cutlery is always present.
- d) The pyramidal lobe projects inferiorly from the isthmus
- e) The venous supply includes the superior middle and inferior thyroid arteries

30. The following statements are false. Which is true

- a) The tympanic membrane is red in color in a non pathological ear
- b) The malleus contracts when the ear is exposed to a loud noise
- c) There is an open area of communication between the external and middle ear
- d) The cone of light is anterior inferior
- e) The round window is found in the mastoid

SECTION B

1. (a) Write short notes on the tracheobronchial tree arrangement and the bronchi pulmonary segments (10marks)
- (b) Discuss the gross anatomy of the visceral surface of the liver and the liver lobule (10marks)

2. (a) Discuss the gross anatomy of the male urethra (10marks)
- (b) Discuss the gross anatomy of the thyroid gland in terms of structure, relations and vascular supply (10marks)