



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF **MEDICAL SCIENCES**
DIPLOMA IN PHARMACEUTICAL TECHNOLOGY
(DPT 12M)

AMD 2105: HUMAN ANATOMY II

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: February 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this examination

- *Answer booklet*

This paper consists of **THREE sections A, B and C.**

Answer all questions in section **A** and **B** and choose **THREE** out of **FIVE** questions in section **C.**

*This paper consists of **10 PRINTED** pages*

SECTION A (40MARKS)

1. For The hepatic flexure of the large intestine occurs between
 - a) Transverse colon and descending colon
 - b) Calcium and ascending colon
 - c) Ascending and descending colon
 - d) Descending and sigmoid colon

 2. The following factors increase the chronotropic effects of the heart
 - a) Digitalis
 - b) Adrenaline
 - c) Serotonin
 - d) Acetyl choline

 3. Which of the following organs is not considered to be part of the alimentary canal
 - a) Tongue
 - b) Pancreas
 - c) Spleen
 - d) Gall bladder

 4. The heart rate is affected by the following except
 - a) Size of the heart
 - b) Exercise
 - c) Health status
 - d) Age

 5. The most important muscles for respiration are
 - a) Diaphragm, abdominal rectus, abdominal oblique
 - b) Diaphragm, external and internal intercostals
 - c) External & internal intercostals, scalene, serratus
 - d) External & internal intercostals, rectus abdominis, abdominal oblique

 6. The kidney is made up of the following parts except
 - a) Nephron
 - b) Calyx
 - c) Glomerulus
 - d) Pelvis

 7. Testosterone is secreted by
 - a) Leydig cells
 - b) Sertoli cells
 - c) Parietal cells
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- d) Prostate gland
8. The following hormone is released from posterior pituitary gland
- ADH
 - ACTH
 - Growth Hormone
 - None of the above
9. The end product of Red cell break down is
- Heparin
 - Bilverdin
 - Bilirubin
 - Bile salts
10. Cardiac output is a measure of the force by which the heart contracts and it depends on
- Stroke volume
 - Autonomia nervous system
 - End – diastolic volume
 - End- systolic pressure
11. Insulin is recreated by the following cells
- Islets of langerhans
 - Ductular cells
 - Acinar cells
 - Alpha cells
12. The following physical properties affect lung function except
- Surface tension
 - Elasticity
 - Compliance
 - Tensile strength
13. Deficiency in calcium results in
- Short bones
 - Calcinuria
 - Blithe bones
 - Hard bones
14. The following form part of the respiratory system
- Tongue
 - Uvula
 - Pharyne
 - Heart
15. The following structures are associated with the larynx superiorly
- Trachea
 - Hyoid bone
 - Thyroid

- d) Cervical ventebrae
16. When intense respiratory effort is required, accessory muscles are used. The most common is
- Internal intercostal
 - Abdominal rectus
 - Sternocleidomastoid
 - Scalene
17. The following are layers of the mucosa except
- Mucous membrane
 - Lamina propria
 - Muscularis mucosa
 - Adventitia
18. The following hormone complex slows down gastric motility
- Enterogastrone
 - Histamine complex
 - Acetylcholine
 - Gastrin
19. Contraction of the muscle wall of the gall bladder to release bile is initiated by
- Presence of enterogastrone
 - Presence of cholecystokinin
 - Pressure of zymogens
 - Pressure of food particles
20. The following are blood constituents that are found in the glomerular filtrate except
- Toxins
 - Erythrocytes
 - Amino acids
 - Hormones
21. Intercalated discs possess the following except
- Ion channels
 - Tight junctions
 - Glycoprotein
 - Gap junctions
22. The major workhorse cells of the pancreas are
- Ductular
 - Acinar cells
 - Beta cells
 - None of the above
23. The hormonal agent responsible for distension on overfilling of the heart ventricles is
- Atrial natriuretic peptide
 - PTH
 - Vasopressin

- d) Aldosterone
24. The pacemaker of the heart is
- SA node
 - AV node
 - Punkinje
 - Bundle of His
25. The following constitute the female external genitalia
- Vagina
 - Clitoris
 - Frasers
 - Cervix
26. The heart is best describe as
- An infrinsic system
 - A syncitium
 - A plain power system
 - A closed power system
27. The following are the main types of shocks except
- Hyporolemic
 - Cardrogenic
 - Pulmonary
 - Neurogenic
28. The right kidney is associated with the following structures postermouly
- A drenal gland
 - Spleen
 - Right lobe of the liver
 - Diaphragm
29. The Oral cavity the pharynx, the Oesophagus and rectum are surrounded by fibrous connective tissue layers known as
- Serosa
 - Muscularis exterina
 - Adventitia
 - Mucosa
30. Which of the forms part of the enteric nervous system
- Averback plexus
 - Vagua plexus
 - Measenteric plexus
 - Enteric plexus
31. The chief cells of the stomach are capable of secreting large amount of
- Cholecytokinin
 - Insulin

- c) Gastrin
 - d) Pepsimogen
32. Which of the following is not an enzyme
- a) Chymotrypsin
 - b) Enterokinase
 - c) Secretin
 - d) Pepsin
33. Acinar cells secrete the following
- a) NaHCO_3
 - b) Maltose
 - c) Insulin
 - d) Glucagon
34. Blood supply to the lungs is via
- a) Splanchnic artery
 - b) Carotid artery
 - c) Jugular artery
 - d) Pulmonary artery
35. The ovary is held in position by ligaments known as
- a) Tunia albiginea
 - b) Suspensory ligament
 - c) Tendon
 - d) Cystic ligament
36. The superficial veins in the hand consists of
- a) Palma vein
 - b) Auxiliary vein
 - c) Metacarpal vein
 - d) Cephalic vein
37. The male reproductive Organ is located in the
- a) Pelvic region
 - b) Thoracic region
 - c) Lumbar region
 - d) Abdominal pelvic region
38. Blood supply to the gale bladder is via the following artery
- a) Cystic
 - b) Hepatic
 - c) Femoral
 - d) Splenic
39. Which of the kidney is protected by three layers of connective tissue except
- a) Renal fascia
 - b) Fascia Adheren
 - c) Adipose capsule

d) Renal capsula

40. Which of the following form a part of the intrinsic salivary glands except
- a) Lingual
 - b) Labial
 - c) Sub-lingual
 - d) Buccal

SECTION B (Answer ALL questions)

41. List the exocrine and endocrine functions of the pancreas (4marks)
42. What is meant by the term Renal clearance (4marks)
43. List FOUR functions of the liver (4marks)
44. Differentiate between pulmonary circulation and systemic circulation. (4marks)
45. What is meant by the term electrocardiogram (ECG) and what is its usefulness in medicine.

(4marks)

46. List FOUR important consequences myocardial infarction. (4marks)
47. List the FOUR layers that make up the alimentary canal (4marks)
48. List down the parameters that result in the lungs. (4marks)
49. List FOUR causes of adrenal gland over secretion (4marks)
50. What is valvular insufficiency? Discuss the causes (4marks)

SECTION C Answer any THREE questions

51. How is the heart adapted to its function (20marks)
52. Low blood volume and hypotension is the main trigger of the Renin. Angiotension Aldosterone system (RAAS). Explain (20marks)
53. Discuss the physiology of sex differentiation in man. (20marks)
54. Describe blood supply to the following organs
- a) Heart (10marks)
 - b) Kidney (10marks)
55. Describe mechanisms of inspiration (20marks)