AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
BACHELOR OF SCIENCE IN NURSING
END OF JANUARY-APRIL SEMESTER 2023 EXAMINATIONS

COURSE CODE AND TITLE: BSN 122 HUMAN ANATOMY II

DATE: 18TH APRIL 2023

Duration: 2 HOURS Start: 9:00 AM Finish: 11:00 AM

INSTRUCTIONS

1. This exam is out of 70 marks
2. This Examination comprises THREE Sections. Section I: Multiple Choice Questions (20 marks) Section II: Short Answer Questions (30 marks) and Section III: Long Answer Questions (20 marks)
3. Answer ALL Questions.
4. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION A: MULTIPLE CHOICE QUESTIONS **[20 Marks]**

1. Regarding the neuroendocrine system: -
   A. The endocrine system is quicker than the nervous system
   B. Endocrine glands secrete hormones into ducts for transport to target organs
   C. Certain cells respond to one hormone and not to another, depending on their receptors
   D. Non-steroid hormones are produced by the adrenal glands, the ovaries, and the testes

2. A pheochromocytoma is an adrenaline secreting tumor. This tumor arises from the _____ cells of the adrenal gland: -
   A. Zona reticularis
   B. Zona fasciculate
   C. Chromaffin cells
   D. Zona glomerulosa

3. Hypothalamic releasing and release-inhibiting hormones are transported from the hypothalamus to the pituitary gland by way of the: -
   A. The general bloodstream
   B. The hypothalamo-hypophyseal tract
   C. Diffusion through the interstitial fluid
   D. Hypothalamo-hypophyseal portal system

4. The primary target of thyrotropin is: -
   A. Thyrotrophs
   B. Follicular cells of thyroid
   C. Parafollicular cells of thyroid
   D. Principal cells of the parathyroid gland

5. The fibres of the atrioventricular bundle & its branches: -
   A. Are nerve fibres
   B. Are highly contractile
   C. Are modified muscle fibres
   D. Conduct impulses very slowly

6. The left ventricle has a thicker wall than the right ventricle because: -
   A. It contracts at a higher rate
   B. It receives oxygenated blood
   C. It ejects a greater cardiac output
   D. It ejects blood against a higher pressure

7. The atrioventricular valves close when: -
    A. Pressure inside the ventricles is at its lowest
    B. Ventricular pressure exceeds that of the atria
    C. Pressure is greater in the aorta than in the left ventricle
    D. Pressure inside the atria is greater than that inside the ventricles

8. The trachea: -
    A. Terminates at the thoracic inlet
    B. Lies posterior to the esophagus
    C. Divides into two equal principal bronchi
    D. Is marked at its lower end by the level of the sternal angle

9. The thoracic diaphragm: -
    A. Has a major role in expiration
    B. Has an aortic opening at the level of T12 vertebra
    C. Has the esophageal opening at the level of T8 vertebrae
    D. Receives motor innervation from the intercostal nerves
10. Regarding the intercostal muscles: -
    A. They are arranged in 4 layers
    B. The outer layer's contraction approximates the ribs
    C. Neurovascular plane lies between the middle and inner layer of muscles
    D. Fibres of the middle layer muscles run in a downwards and forwards direction

11. The spermatic cord contains: -
    A. Epididymis
    B. Gonadal vessels
    C. Ejaculatory duct
    D. Ilioinguinal nerve

12. A patient with metastases to the liver is likely to present with abdominal tenderness over the: -
    A. Left upper quadrant
    B. Left lower quadrant
    C. Right upper quadrant
    D. Right lower quadrant

13. The muscular valve that regulates the ampulla opening at the major duodenal papilla is the: -
    A. Pyloric sphincter
    B. Sphincter of Oddi
    C. Ileocecal sphincter
    D. Inferior esophageal sphincter

14. The correct path of flow of bile is: -
    A. Hepatic duct →Common bile duct →Gall bladder →Cystic duct
    B. Hepatic duct →Common hepatic duct →Cystic duct →Gall bladder
    C. Cystic duct →Hepatic duct →Common hepatic duct →Common bile duct
    D. Common hepatic duct →Hepatic duct →Common bile duct →Cystic duct

15. A 52-year-old man is brought to the emergency department with history of abdominal pain, vomiting and yellowness of eyes. Imaging investigation reveals pancreatic head tumor. The most likely factor responsible for the yellowness of eyes is: -
    A. Metastases to the eye
    B. Obstruction of the common bile duct
    C. Destruction of liver cells by metastases
    D. Leakage of bile from the tumor site to the blood stream

16. The blood vessels that surround the loops of Henle within the renal medulla are the: -
    A. Vasa recta
    B. Arcuate arteries
    C. Efferent arterioles
    D. Interlobular arteries
17. The macula densa cells are located in the: -
    A. Collecting ducts
    B. Proximal convoluted tubule
    C. Descending limb of the loop of Henle
    D. Thick ascending limb of the loop of Henle

18. Benign prostate enlargement commonly present with urinary obstruction because: -
    A. Prostate forms urine
    B. The urethra traverses the prostate gland
    C. Prostate cancers commonly metastasize to the kidneys
    D. Of obstruction of one ureter by the enlarged prostate gland

19. Functions of the Sertoli cells include: -
    A. Aiding in spermiogenesis
    B. Secretion of androgen hormones
    C. Activating the process of capacitation
    D. Primary site of action of the luteinizing hormone

20. The ligament that assists in maintaining the normal anteverted-anteflexed uterine position is: -
    A. Broad ligament
    B. Round ligament
    C. Suspensory ligament
    D. Sacrotuberous ligament

SECTION B: SHORT ANSWER QUESTIONS [30 Marks]

1. Name the parts of the pituitary gland and indicate the hormones secreted by each (5 marks)
2. State five acyanotic congenital heart diseases (5 marks)
3. Outline the path followed by air in order from the atmosphere to the alveoli (5 marks)
4. Name the cell types of the gastric mucosa and indicate the role of each (5 marks)
5. Describe the internal macroscopic anatomy of the kidney (5 marks)
6. Describe the structure and functions of the ovary (5 marks)

SECTION C: LONG ANSWER QUESTIONS [20 Marks]

1. Describe the nine regions of the abdomen and name the organs housed in each region
   s (10 marks)

2. Describe sex determination and differentiation prenatally and state three major causes of intersex disorders (10 marks)