AMREF INTERNATIONAL UNIVERSITY

SCHOOL OF MEDICAL SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES

BACHELOR OF SCIENCE IN NURSING

END OF SEMESTER EXAMINATIONS DECEMBER 2023

COURSE CODE AND TITLE: BSM 122/BSN 122 HUMAN ANATOMY II

Date:11- DECEMBER -2023

Time: 2 Hours **Start: 9:00AM** **Finish: 11:00AM**

Instructions

1) This paper has three sections: Section A, Section B and Section C
2) Answer **ALL** questions in Section A and Section B and C
3) Use the University examination booklets provided
4) Re-writing the questions on your answer sheet is unnecessary

SECTION A: MULTIPLE CHOICE QUESTIONS [20 Marks]

1. A tumor in the thyroid gland is MOST likely to present with _____ as a result of pressure on the surrounding structures: -
    A. Night sweats
    B. Hypothyroidism
    C. Difficulty is swallowing
    D. Elevated levels of thyroxine

2. A pheochromocytoma is an adrenaline secreting tumor. This tumor arises from the _____ 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. Diffusion through the interstitial fluid
    B. Hypothalamo-hypophyseal portal system
    C. The hypothalamo-hypophyseal tract
    D. The general bloodstream

4. How do hormones from the thyroid and parathyroid regulate the calcium concentration of the blood: -
    A. Thyroxine and triiodothyronine together regulate calcium levels, as needs dictate.
    B. Both parathyroid hormone and the three thyroid hormones function to regulate blood calcium levels
    C. Calcitonin lowers blood calcium; parathyroid hormone raises blood calcium
    D. Parathyroid hormone lowers blood calcium; calcitonin raises blood calcium

5. Pancreatic cells that secrete insulin hormone are the: -
    A. Beta cells
    B. Delta cells
    C. Alpha cells
    D. Acinar cells

6. The foregut is supplied by the following artery: -
    A. superior mesenteric artery
    B. inferior mesenteric artery
    C. celiac trunk
    D. femoral artery

7. Abnormal septation of the foregut may result in: -
    A. Pulmonary agenesis
    B. Tracheoesophageal fistula
    C. Accessory lobe of the lung
    D. Respiratory distress syndrome of the newborn

8. When food reaches the stomach, the gall bladder contracts to release bile. This bile is released into the: -
    A. Colon
    B. Jejunum
    C. Stomach
    D. Duodenum

9. The pyloric sphincter is found between the: -
    A. Ileum and caecum
    B. Esophagus and stomach
    C. Stomach and duodenum
    D. Duodenum and jejunum

10. The _____ delivers blood rich in nutrients to the liver from the intestines: -
    A. Portal vein
    B. Portal artery
    C. Hepatic vein
    D. Hepatic artery

11. The congenital anomaly of the digestive system that presents with a defect in the anterior abdominal wall is: -
    A. Omphalocele
    B. Pyloric stenosis
    C. Meckel's diverticulum
    D. Malrotation of the midgut

12. The juxtaglomerular apparatus is formed by the afferent arteriole and the: -
    A. Distal convoluted tubule
    B. Proximal convoluted tubule
    C. Thin ascending loop of Henle
    D. Thick descending loop of Henle

13. A _____ is a congenital malformation of the kidney where the inferior poles fuse in the pelvis: -
    A. Pelvic kidney
    B. Renal duplex
    C. Horseshoe kidney
    D. Polycystic kidney

14. There is/are _____ opening(s) in the urinary bladder: -
    A. 1
    B. 2
    C. 3
    D. 4
15. Regarding the juxtaglomerular apparatus: -
    A. The macular densa is modified afferent arteriole endothelium
    B. Renin is secreted in response to reduced tubular pressure
    C. Juxtaglomerular cells are primarily located in the walls of the efferent arteriole of the glomerulus
    D. The macula densa is part of the thick ascending limb of the loop of Henle

16. Concerning the effects of hormones on the renal tubules, which is one CORRECT: -
    A. Aldosterone increases potassium (K) reabsorption from the distal tubule
    B. Angiotensin II increases hydrogen (H) secretion from the proximal tubule
    C. Antidiuretic hormone (ADH) increases water reabsorption in the proximal convoluted tubule (PCT)
    D. Atrial natriuretic peptide (ANP) decreases sodium (Na) reabsorption from the proximal convoluted tubule (PCT)

17. The penile urethra lies within the substance of: -
    A. Tunica albuginea
    B. Corpus cavernosum
    C. Corpus spongiosum
    D. Seminiferous tubules

18. The organ that produces the largest volume of semen is: -
    A. The testis
    B. Prostate gland
    C. Seminal vesicles
    D. Bulbourethral gland

19. The _____ secretes hormones in the ovary after ovulation: -
    A. The oocyte
    B. Corpus luteum
    C. Cumulus oophorous
    D. Interstitial cells of Leydig

20. The fallopian tube: -
    A. Has an infundibulum that passes into the uterine wall
    B. Lacks a lamina propria
    C. Is lined by simple squamous epithelium
    D. Has a short narrow thick- walled isthmus

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. Describe the structural organization of the fallopian tube wall. (5 Marks)
3. Describe the structural organization of the wall of colon. (5 Marks)
4. Use a labelled diagram to illustrate the components of the biliary tree. (5 Marks)
5. Outline the parts and functions of each part of the nephron. (5 Marks)
6. Describe the structure and functions of the ovary. (5 Marks)

SECTION C: LONG ANSWER QUESTIONS [20 Marks]

1. Describe the layers of the wall of the body of the uterus (10 Marks)

2. Describe the different varieties of the Mullerian duct malformations (10 Marks)