

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF SCIENCE (NURSING)

NURS 111: HUMAN ANATOMY I

STREAMS: BSC (NURS)Y1S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 06/12/2017

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

- Do not write anything on the question paper
- Mobile phones and any other reference material are NOT allowed in the examination room.
- The paper has three (3) sections. Answer ALL questions
- Your answer for section A (MCQs) should be on the first page of the answer booklet.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. The cytoskeletal component that is involved in cell division is:
 - (a) Microtubule
 - (b) Intermediate filament
 - (c) Microfilament
 - (d) Pericentriolar
2. Macrophages are involved in phagocytosis. They have abundant:
 - (a) Mitochondria
 - (b) Smooth endoplasmic reticulum
 - (c) Lysosomes
 - (d) Peroxisomes

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3. Which of the following statements is true concerning the Golgi complex
 - (a) It has a single membrane similar to the plasma membrane
 - (b) It is found in close association to rER
 - (c) It is involved in the manufacture of proteins
 - (d) It is most prominent in actively dividing cells

4. Cytokinesis occurs at which phase of the cell cycle:
 - (a) G1
 - (b) G2
 - (c) S
 - (d) M

5. Multiunit smooth muscle is associated with:
 - (a) Uterus
 - (b) Small intestines
 - (c) Iris
 - (d) Heart

6. Most of the sensory (afferent) neurons are:
 - (a) Unipolar
 - (b) Bipolar
 - (c) Anoxic
 - (d) Multipolar

7. The most abundant connective tissue in the serosa is:
 - (a) Elastic
 - (b) Hyaline
 - (c) Areolar
 - (d) Fibro cartilage

8. The main function of stratified squamous epithelium is:
 - (a) Absorption
 - (b) Protection
 - (c) Secretion
 - (d) Excretion

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9. The first polar body is extruded:
 - (a) 24 hours prior to ovulation
 - (b) At the time of ovulation
 - (c) 48 hours after ovulation
 - (d) Upon fertilization of the ovum
10. Which of the following hormones is NOT secreted by the placenta:
 - (a) Estrogen
 - (b) Human placental lactogen
 - (c) Human growth hormone
 - (d) Human chorionic gonadotropin
11. During examination of the placenta and membranes the nurse notes that the umbilical cord is inserted in the membranes. She notes this insertion as:
 - (a) Central
 - (b) Velamentous
 - (c) Lateral
 - (d) Battledore
12. In fetal circulation, blood flows directly from the pulmonary trunk into the aorta through the:
 - (a) Umbilical vein
 - (b) Foramen ovale
 - (c) Ductus venosus
 - (d) Ductus arteriosus
13. Which of the following is TRUE concerning oogenesis:
 - (a) Starts at birth and completed after puberty
 - (b) First meiotic division is arrested at metaphase
 - (c) Results in the formation of four daughter cells
 - (d) Occurs under the influence of LH
14. Which of the following statements correctly describe the position of the liver?
 - (a) Distal to the stomach
 - (b) Ventral to the spleen
 - (c) Contralateral to the spleen
 - (d) Ipsilateral to the stomach

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15. Occipital condyles articulate with the:
- (a) Axis
 - (b) Atlas
 - (c) Clavicle
 - (d) Sternum
16. Muscles of the neck include:
- (a) Trapezius, latissimus dorsi
 - (b) Sternocleidomastoid, buccinators
 - (c) Platysma, sternocleidomastoid
 - (d) Platysma, orbicularis oculi
17. The main action of the posterior thigh muscle is:
- (a) Flexion at the knee joint
 - (b) Flexion at the hip joint
 - (c) Extension at the knee joint
 - (d) Extension at the hip joint
18. Sartorius muscle is referred as the Tailors muscle. It is innervated by which nerve:
- (a) Sciatic
 - (b) Obturator
 - (c) Femor
 - (d) Common fibular
19. Tubercle of the 7th rib articulates with:
- (a) The body of T6
 - (b) The body of T7
 - (c) Transverse process of T6
 - (d) Transverse process of T7
20. The aortic opening of the diaphragm transmits all of the following EXCEPT:
- (a) Vagus nerve
 - (b) Aorta
 - (c) Thoracic duct
 - (d) Azygos vein

SECTION B: SHORT ANSWER QUESTIONS (40 MARKS)

1. State the three (3) types of membrane lipids indicating one function of each. [6 marks]
2. Describe briefly the histology of the compact bone. [5 marks]
3. Describe briefly the three (3) types of exocrine glands with an example of each. [6 marks]
4. Outline the three (3) layers of the gastrula giving two structures arising from each. [6 marks]
5. State five (5) differences between gynecoid and android pelvis. [5 marks]
6. Describe the layers of the abdominal wall from the surface into the cavity. [6 marks]
7. Explain briefly three (3) types of point mutations. [6 marks]

SECTION C: LONG ANSWER QUESTIONS (40 MARKS)

1. (a) Draw a well labeled diagram illustrating the parts of the humerus in the anterior view. [7 marks]
 - (b) Describe blood supply to the upper limb. [8 marks]
 - (c) Describe the muscles found in the anterior and posterior aspect of the arm. [6 marks]
 2. (a) Discuss the role of the following hormones:
 - (i) Gonadotropin releasing hormone (GnRH) [2 marks]
 - (ii) Follicle stimulating hormone (FSH) [2 marks]
 - (iii) Luteinizing Hormone (LH) [2 marks]
 - (b) Describe the phases of the ovarian cycle. [14 marks]
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