

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATION

RESIT/SUPPLEMENTARY / SPECIAL EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF
SCIENCE (NURSING)**

NURS 111: HUMAN ANATOMY I

STREAMS: BSc. Nursing

TIME: 2 HOURS

DAY/DATE: THURSDAY 16/09/2021

8.30 A.M - 10.30 A.M.

INSTRUCTIONS TO CANDIDATES

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are **NOT** allowed in the examination room.
- The paper has three (3) Sections. **ALL** the questions are compulsory
- Your answers 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

1. The most abundant component of the plasma membrane is:
 - a) Phospholipid
 - b) Protein
 - c) Cholesterol
 - d) Glycocalyx
2. The cytoskeletal component that is important in cell division is:
 - a) Intermediate filament
 - b) Microtubule
 - c) Mitotic spindle
 - d) Microfilament
3. Skeletal muscles require a lot of energy. They have abundant:
 - a) Mitochondria
 - b) Ribosomes

- c) Lysosomes
 - d) Golgi bodies
4. Cytokinesis begins during:
- a) Prophase
 - b) Metaphase
 - c) Anaphase
 - d) Telophase
5. During protein synthesis premature termination of polypeptide chain occurs as a result of which mutation:
- a) Missense
 - b) Nonsense
 - c) Silent
 - d) Disjunction
6. Which of the following gland is the odd one out:
- a) Salivary
 - b) Sebaceous
 - c) Sweat
 - d) Thyroid
7. Unitary smooth muscle is associated with all of the following **EXCEPT**:
- a) Myosin
 - b) Tropomyosin
 - c) Iris
 - d) Troponin
8. The most common site of implantation is:
- a) Fallopian tube
 - b) Uterine fundus
 - c) Ovaries
 - d) Uterine body
9. During oogenesis, meiosis one is arrested at:
- a) Prophase
 - b) Metaphase
 - c) Anaphase
 - d) Telophase
10. The hormone associated with the formation of corpus luteum is:
- a) Estrogen
 - b) Human chorionic gonatropin
 - c) Luteinizing hormone
 - d) Progesterone
11. The liver and the spleen are:
- a) Contralateral
 - b) Ipsilateral
 - c) Intermediate
 - d) Ventral

12. Muscles of the neck include all of the following EXCEPT:
 - a) Trapezius
 - b) Lattismusdorsi
 - c) Sternocleidomastoid
 - d) Platysma
13. Which of the following is associated with the axis(C1):
 - a) Odontoid process
 - b) Bifid spinous process
 - c) Lateral masses
 - d) Grooves for vertebral artery
14. The carpal bone that articulates with the radius is:
 - a) Capitate
 - b) Hamate
 - c) Trapezoid
 - d) Scaphoid
15. Rotator cuff muscles include the:
 - a) Deltoid
 - b) Subcapsularis
 - c) Brachialis
 - d) Biceps brachii
16. The muscle also referred to as the Tailor's muscle is:
 - a) Adductor magnus
 - b) Iliopsoas
 - c) Sartorius
 - d) Adductor longus
17. Medial and lateral condyles of the femur are separated by:
 - a) Intercondylar notch
 - b) Coronoid fossa
 - c) Popliteal fossa
 - d) Intertranchateric line
18. The plane that divide an organ into unequal right and left portions is the:
 - a) Oblique
 - b) Parasagittal
 - c) Coronal
 - d) Sagittal
19. Aortic opening of the diaphragm transmits all of the following EXCEPT:
 - a) Aorta
 - b) Vagus nerve
 - c) Thoracic duct
 - d) Azygos
20. Which of the following muscle is NOT a component of the Harmstrings:
 - a) Biceps femoris
 - b) Semitendinosus

- c) Semimembranosus
- d) Rectus femoris

SECTION B: SHORT ANSWER QUESTIONS (40 Marks)

1. Draw a well labelled diagram of the human cell (6 marks)
2. Describe the five (5) functional proteins associated with the plasma membrane (5 Marks)
3. State five (5) differences between skeletal and smooth muscles (5 marks)
4. Outline four (4) neuroglia cells stating one function of each (4 marks)
5. State five (5) functions of the placenta (5 Marks)
6. Outline four (4) joints involving the tibia (4 marks)
7. State five (5) differences between DNA and RNA (5 marks)
8. Describe the blood supply to the head and neck (6 marks)

SECTION C: LONG ANSWER QUESTION (40 Marks)

QUESTION ONE

Female reproductive cycles begin at puberty and end at menopause. They are regulated by a variety of hormones secreted by the hypothalamus and anterior pituitary. Describe

- a) Outline three (3) hormones that regulate the ovarian cycle indicating their function 6 marks
- b) Describe the phases of the menstrual cycle (14 marks)

QUESTION TWO

There are four types of connective tissue. They are made of cells connected by cell junctions.

- a) Describe three (3) cell junctions (9 marks)
 - b) Discuss the components of connective tissue (11 marks)
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