

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION: MAY, 2021

COURSE TITLE; HUMAN ANATOMY AND PHYSIOLOGY I
COURSE CODE: GNS 115
TIME ALLOCATED: TWO (2) HOURS
MARKS ALLOCATED: 75
TOTAL NO. OF PAGES: 6

INSTRUCTIONS:

1. THERE ARE TWO SECTIONS IN THIS PAPER.
 - i) SECTION 1 35 MARKS
 - A. MULTIPLE CHOICE QUESTIONS
 - B. MATCHING
 - ii) SECTION II IS SHORT ANSWERS AND ESSAYS
 - A. SECTION II CARRIES 40 MARKS
2. PLEASE ANSWER ALL SECTIONS
3. USE ANSWER SHEET FOR ALL YOUR ANSWERS
4. DO NOT OPEN YOUR QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY INVIGILATOR.

SECTION 1

A. MULTIPLE CHOICE QUESTIONS

(25 MARKS)

For each of the following questions /statements choose the most appropriate response and write it in your answer book. e.g. 1 = C

1. Which of the following reduces the density of bone?
 - A. Osteomalacia
 - B. Fractures
 - C. Osteoporosis
 - D. Inflammation

2. Which structural part of the bone is responsible for production of blood cells?
 - A. Shaft
 - B. Red bone marrow
 - C. The diaphysis
 - D. Both A and C

3. In which part of the body are metacarpals located?
 - A. The foot
 - B. The skull
 - C. The hand
 - D. The vertebra

4. Which of the following bones protect the spinal cord?
 - A. The vertebra
 - B. The skull
 - C. The pelvic bones
 - D. The femur

5. Which of the following bones protect the heart?
 - A. Sternum
 - B. Ribs
 - C. Vertebra
 - D. Ribs and sternum

6. Which is the most abundant tissue in the human body?
- A. The osseous tissue
 - B. The connective tissue
 - C. The nervous tissue
 - D. The epithelial tissue
7. Which of the following tissues has the highest regenerative capacity?
- A. The osseous tissue
 - B. The connective tissue
 - C. The nervous tissue
 - D. The epithelial tissue
8. Which of the following tissue attaches muscles to bones?
- A. ligament
 - B. Tendon
 - C. Synovial fluid
 - D. Muscles
9. Cartilage is classified as which of the following tissues?
- A. Connective tissues
 - B. Muscular tissue
 - C. Nervous tissue
 - D. Bone tissue
10. Which organ of the body assists the body to get rid of nitrogenous waste?
- A. The heart
 - B. The lungs
 - C. The kidney
 - D. The intestines
11. Which of the following bones cross over during pronation?
- A. Fibular and tibia
 - B. Humerus
 - C. Femur
 - D. Radius and ulna

12. Which is the strongest bone of the pelvic girdle?
- A. Ilium
 - B. Ischium
 - C. Pubic
 - D. Coccyx
13. Apocrine glands are abundant in the...
- A. Forehead
 - B. Axilla
 - C. Palms
 - D. Chest
14. Which bone/s fuses at the acetabulum?
- A. Ischium
 - B. ilium
 - C. Pubic
 - D. A, B and C
 - E. B and C
15. The physiology of bone is the following **except**.
- A. Protection
 - B. Blood cell formation
 - C. Stores glucose
 - D. Locomotion
16. Which joint is the most secured joint in the human body?
- A. Knee
 - B. Elbow
 - C. Shoulder
 - D. Hip

17. The scientific study of body cells is called
- A. Cells anatomy
 - B. Cytology
 - C. Histology
 - D. Blood count
18. The smallest functional unit of the body is the...
- A. Cells
 - B. Tissues
 - C. Organs
 - D. Atoms
19. Anatomy is the scientific study of ...
- A. Cells
 - B. Tissues
 - C. Body structures and their relationships
 - D. Body functions and their imbalances
20. Histology is the scientific study of the...
- A. Human body
 - B. Body systems
 - C. Body cells
 - D. Body tissues
21. Which layer of the skin provides protection?
- A. The epidermis
 - B. The hypodermis
 - C. The basal layer
 - D. The dermis
22. Which pigments determine the colour of the skin?
- A. Carotene
 - B. Melanin
 - C. Blood
 - D. Sunlight

23. Why do people who live along the equator have a darker skin compared to those living in the polar regions.
- A. They lack melanin stimulation around the poles.
 - B. The equatorial region is exposed to more sunlight which stimulates the production of melanin.
 - C. Their blood is high in bilirubin
 - D. None of the above
24. Paraplegia refers to ...
- A. Paralysis of the neck down
 - B. Paralysis on one side of the body.
 - C. Paralysis from the waist down.
 - D. Both A and C
25. Hemiplegia refers to...
- A. Paralysis from the neck down
 - B. Paralysis on one side of the body.
 - C. Paralysis from the waist down.
 - D. Both A and C

SECTION 1 B MATCHING**(10 marks)**

Choose the most appropriate response in column B to the statements in Column A and write the correct alphabet in your answer booklet.

NO	COLUMNS A	COLUMN B
1	Which membrane covers organs in a closed cavity	A. Sphenoid
2	Which membrane covers the wall of the cavity.	B. Vertebral
3	The joint that joins the two parietal bones.	C. Smooth
4	The plane that goes through the joint that joins the frontal and parietal bones	D, Skeletal
5	The muscles that assist with peristalsis	E. Hyoid
6	The.....muscle is responsible for locomotion	F. Sagittal
7	The shortest ribs in the human body	G. Coronary
8	The only floating bone in the human body.	H. Parietal
9	The only movable joint of the skull	I Temporo- mandibular
10	Keystone bone of the cranium	J. Visceral

SECTION 2 SHORT ANSWERS ESSAYS**(40 MARKS)****Scenario 1**

You are a student nurse working in a male surgical ward. The ward is full of clients/patients with fractures due to a bus accident that occurred at Malagwane three days ago. The bus was half filled with high school student returning from a school trip. The students are anxious to know more about fractures. Please answer the following question that relate to fractures selected from the questions asked by the students.

SECTION 2 A**(14marks)**

1. Define a fracture? (2)
2. Define and explain briefly the following fractures. (2 marks each)
 - A. Compound fracture
 - B. Greenstick fracture
 - C. Depressed Fracture
 - D. Epiphyseal fracture
3. Briefly discuss two types of treatment used to treat individuals with fractures. (4 marks)

SECTION 2 B**(16 marks)**

1. State three types of burns and list a typical sign of each burn (6)
2. Using the rule of nine, allocate the percentages of burns covering the whole body (10)

SECTION 2 C**(10 MARKS)**

Define the following Anatomical terms.

(2 marks each)

1. Blister
2. Osteomalacia
3. Hematoma
4. Cyanosis
5. Osteoporosis