

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF GENERAL NURSING
RE-SIT EXAMINATION: JANUARY 2019

COURSE TITLE:	HUMAN ANATOMY AND PHYSIOLOGY 1
COURSE CODE:	GNS 115
MARKS ALLOCATED	75
TIME ALLOWED	TWO (2) HOURS

INSTRUCTIONS:

- i) THERE ARE TWO SECTIONS IN THIS PAPER.**
- ii) SECTION 1A IS MULTIPLE CHOICE**
- iii) SECTION 1B IS MATCHING**
- iv) SECTION 2 IS SHORT ESSAY QUESTION**

- 1. PLEASE ANSWER ALL SECTIONS**
 - i) SECTION 1 CARRIES 25 MARKS**
 - ii) SECTION 2 CARRIES 50 MARKS**
- 2. USE ANSWER BOOK FOR ALL YOUR ANSWERS.**

**NB: PLEASE DO NOT OPEN YOUR QUESTION PAPER UNTIL
PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.**

SECTION 1A MULTIPLE CHOICE QUESTIONS

Please choose the most correct response and write it in your answer book.

1. **Histology is the scientific study of which of the following?**
 - A. Cells
 - B. Gross anatomy
 - C. Microscopic anatomy
 - D. Tissues

2. **Which of the following plane divides the body into left and right half?**
 - A. Horizontal plane
 - B. Vertical plane
 - C. Sagittal plane
 - D. Transverse plane

3. **Which of the cavity houses the cardiac?**
 - A. Cranial cavity
 - B. Thoracic cavity
 - C. Abdominal cavity
 - D. Pelvic cavity

4. **Which of the following body cell are responsible for digesting bacteria?**
 - A. Smooth muscle cells
 - B. Fat cells
 - C. Macrophage cells
 - D. Nerve cells

5. **Which of the following refers to cell death due to injury or disease?**
 - A. Necrosis
 - B. Apoptosis
 - C. Ischemia
 - D. Both B and C

6. **The following refers to glycocalyx except:**
 - A. Carbohydrates on the surface of a cell.
 - B. It's made of glycoproteins and proteins
 - C. Are biological markers
 - D. It's found in the nucleus

- 7. Lysosomes digest the following except..**
- A. Bacteria.
 - B. Endometrium
 - C. Glycogen
 - D. Proteins
- 8. Which of the following helps to achieve action potential?**
- A. Opening of sodium gates
 - B. Closing of sodium gates
 - C. Ejection of 3Na^+ and injection 2K^- into the cell.
 - D. None of the above
- 9. Which is the most superficial layer of the epidermis?**
- A. Stratum lucidum
 - B. Stratum basalis
 - C. Stratum granulosum
 - D. Stratum corneum
- 10. Which layer of the skin is responsible for finger prints?**
- A. Dermal layer
 - B. Epidermal layer
 - C. Papillary layer
 - D. Reticular layer
- 11. The majority of body cell reproduce through :**
- A. Mitosis
 - B. Meiosis
 - C. Fertilization
 - D. Diffusion
- 12. The main content of eccrine glands is...?**
- A. Sodium
 - B. Uric acid
 - C. Water
 - D. Sebum

13. Which is the longest bone in the human body?

- A. Tibia
- B. Fibula
- C. Humerus
- D. Femur

14. Which is the keystone bone of the cranium?

- A. Sphenoid bone
- B. Occipital bone
- C. Maxilla
- D. Mandible

15. The foramen magnum is situated in which of the following bones?

- A. Vertebral
- B. Coxal
- C. Occipital
- D. Sphenoid

SECTION 1 B MATCHING

Choose the most correct site in column A, that matches the location in column B. and write the correct alphabet in your answer book.

COLUMN A

1. Covers end of ribs
2. Osteoporosis
3. Site for erythropoiesis
4. The strongest bone of the coxal
5. Located in the base of the occipital bone
6. Joins the two parietal bones
7. Joins the temporal and parietal bones
8. The most complex joint in the body
9. The bone we sit on..
10. Osteoblast

COLUMN B

- A. Bone germinator
- B. Red bone marrow
- C. The sagittal suture
- D. The lambdoid suture
- E. Knee
- F. Foramen magnum
- G. Hyaline cartilage
- H. Occipital bone
- I. Porous bones
- J. Ischium

SECTION 2 SHORT ESSAY QUESTIONS

QUESTION1.

Define the following anatomical terms

(2 marks each)

- 1:1 Anthrology
- 1:2 Osteomalacia
- 1:3 Tendons
- 1:4 Ligaments
- 1:5 Decubitus ulcer

(10 Marks)

QUESTION 2

Differentiate between the two anatomical terms

(2 marks per pair)

2:1 Suture and Gomphosis

2:2 Pronation and Supination

2:3 Anatomy and Physiology

2:4 Hydrophobic and hydrophilic

2:5 Abduction and adduction

(10 Marks)

QUESTION 3.

(10 Marks)

You are a nurse working in the casually/emergency department, you are admitting Mr. B. with a crushed injury on the left hand, he lost the index and the middle finger. Assess the client using your knowledge of the Anatomy of the skeleton to answer question 3:1.

3:1 State the total number of bones for a normal upper limb, and state the number of bones missing in Mr. B's. injury.

QUESTION 4

(10 Marks)

You have a client in a Female Surgical Ward with second degree burns and she has lost 40% of her skin. She is experiencing severe pain. The client asks you to explain why she is experiencing so much pain and ask you to explain the functions of the skin. Based on the client's question answer the question 4:1

4:1 Describe the physiology of the skin.

QUESTION 5

(10 Marks)

5:1 Describe the physiology of bones.