UNIVERSITY OF ESWATINI

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF GENERAL NURSING

FINAL EXAMINATION: DECEMBER 2018

COURSE TITLE:	HUMAN ANATOMY AND PHYSIOLOGY 1
COURSE CODE:	GNS115
MARKS ALLOCATED	75
TIME ALLOWED	TWO (2) HOURS

INSTRUCTIONS:

i) THERE ARE TWO SECTIONS IN THIS PAPER.

ii) SECTION IA 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

PERMISION 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. **Cytology is the scientific study of which of the following?**
   A. Cells
   B. Gross anatomy
   C. Microscopic anatomy
   D. Tissues

2. **Which of the following is not an example of positive feedback mechanism?**
   A. Stopping the original stimuli.
   B. Control of body temperature by the hypothalamus.
   C. Enhances blood clotting
   D. Controls blood sugar using ADH.

3. **The coronary plane divides the human body into :**
   A. Anterior and posterior
   B. Right and left
   C. Superior and inferior
   D. None of the above

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

5. **Which solution will cause a body cell to maintain its original size?**
   A. Hypertonic
   B. Hypotonic
   C. Isotonic
   D. Both B and C

6. **The following are major regions of the cell <u>except:+</u>**
   A. Phospholipids
   B. Plasma membrane
   C. Cytoplasm
   D. Nucleus

7. Sodium dominates in which the of following fluids?

A. Both intracellular and extracellular fluid.
B. Intracellular fluid
C. Extracellular fluid
D. None of the above

8. Which of the following helps to restore membrane 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 of the following transport requires ATP?

A. Exocytosis
B. Osmosis
C. Filtration
D. Diffusion

10. The functioning of sodium-potassium pump depends on:

A. ATP
B. Diffusion
C. Osmosis
D. Filtration

11. The ovum reproduce through :

A. Mitosis
B. Meiosis
C. Fertilization
D. Diffusion

12. Which of the following tissues has an excellent regenerative capacity?

A. Skeletal muscle
B. Epithelial tissue
C. Nervous tissue
D. Cardiac muscle

13. The squamous suture joins which of the following flat bones?

A. Occipital and parietal bones
B. The two parietal bones
C. Temporal and parietal bones
D. Frontal and parietal bones

14. Which of the following is a typical sign of second degree burns?

A. Separation of the epidermis and dermis.
B. Separation of the stratum cornea and the stratum basalis.
C. Separation of the stratum corneum and the stratum lucidum.
D. Separation of the periosteum and the endosteum.

15. Which of the following cells coordinate bone remodeling?

A. Osteocytes
B. Osteoblast
C. Osteoclast
D. Both B and C

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

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	COLUMN B
1. End of long bones	A. Elastic cartilage
2. The pinna of the ear	B. Fibrous cartilage
3. The intervertebral disc	C. The vertebral column
4. Formed by 33 bones	D. Forms the acetabulum
5. Houses the ischium	E. Coxal
6. The skull	F. Foramen magnum
7. Protects the spinal cord	G. Hyaline cartilage
8. Symphysis pubis	H. Occipital bone
9. Connect ribs to sternum	
10. Forms the nose	

SECTION 2 SHORT ESSAY QUESTIONS

QUESTION1

Briefly explain the following anatomical terms **(2 marks each)**

2:1 Coronary suture
2:2 Anatomical position
2:3 Lambdoid suture
2:4 Sagittal suture
2:5 Temporal suture

(10 Marks)

QUESTION 2

Differentiate between the two anatomical terms **(2 marks per pair)**

2 :1 Cutaneous and serous membrane.

2:2 Radiography and embryology

2:3 Cephalic and cervical

2:4 Integral and peripheral protein

2:5 Parietal pleura and parietal peritoneum (10 Marks)

QUESTION 3 **(10 Marks)**

3:1Describe the bones of the thoracic region including those of the upper girgle?

QUESTION 4 **(10 Marks)**

4:1Describe the typical structure of synovial joints and state the most complex joint in the body.

QUESTION 5 **(10 Marks)**

Mr. Smith is a farmer in the Lubombo region. He present's himself in the outpatient department with a patch in his forearm and the doctor diagnosed the client with melanoma; the most dangerous skin cancer. Based on you understanding of this type of cancer:-.

5:1 Describe to a group of farmers in the community you are currently attached to the cardinal signs of melanoma.