

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION: DECEMBER 2011

COURSE TITLE:	HUMAN ANATOMY
COURSE CODE:	HSC 116
MARKS ALLOCATED:	75
TIME ALLOWED:	TWO (2) HOURS

INSTRUCTIONS:

1. THERE ARE TWO SECTIONS IN THIS PAPER.
 - i) SECTION 1A IS MULTIPLE CHOICE
 - ii) SECTION 1B IS MATCHING
 - iii) SECTION 1C IS TRUE AND FALSE
 - iv) SECTION 2 IS SHORT ANSWERS

2. PLEASE ANSWER ALL SECTIONS
 - i) SECTION 1 CARRIES 35 MARKS
 - ii) SECTION 2 CARRIES 40 MARKS

3. 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

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

1. Histology is the study of:-
 - A. Cells
 - B. Gross anatomy
 - C. Microscopic anatomy
 - D. Tissues

2. Which level of structural organization is the organ?
 - A. First
 - B. Second
 - C. Third
 - D. Fourth

3. The following are examples of negative feedback mechanism except.
 - A. Stopping the original stimuli.
 - B. Control of body temperature by the hypothalamus.
 - C. Enhances blood clotting
 - D. Controls blood sugar using ADH.

4. The sagittal plane divides the human body into :-
 - A. Anterior and posterior
 - B. Right and left
 - C. Superior and inferior
 - D. None of the above

5. This cell protects the body against invasion of microorganisms.
 - A. Smooth muscle cells
 - B. Fat cells
 - C. Macrophage cells
 - D. Nerve cells

6. What would happen to a body cell when immersed in a hypertonic solution?

- A. Shrink
- B. Burst
- C. Swell
- D. Both B and C

7. The following are major regions of the cell except?

- A. Phospholipids
- B. Plasma membrane
- C. Cytoplasm
- D. Nucleus

8. Sodium dominates in which the following fluids.

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

9. The sodium-potassium pump helps to:-

- A. Restore membrane potential
- B. Bring membrane potential to -70mV
- C. Helps eject 3Na^+ and inject 2K^- into the cell.
- D. All of the above

10. The following are examples of passive membrane transport except.

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

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

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

12. Anaphase is the :-

- A. First phase of mitosis
- B. Second phase of mitosis
- C. Third phase of mitosis
- D. Fourth phase of meiosis

13. The smooth endoplasmic reticulum is responsible for:-

- A. Manufacturing the cell membrane
- B. Detoxification of drugs and pesticides in the liver
- C. Power of the cell
- D. Destruction of bacteria and viruses in the cell

14. The Golgi apparatus is the :-

- A. Demotion crew of the cell
- B. Manufactures the cell membrane
- C. Director of cellular protein traffic
- D. All of the above.

15. Muscle tissue is made of the following except.

- A. Voluntary striated fibers
- B. Involuntary striated fibers
- C. Cardiac muscles
- D. Central nervous system

16. This fiber forms connective tissue.

- A. Elastic fiber
- B. Reticular fiber
- C. Collagen fiber
- D. All of the above

17. Which of the following cells form connective tissue?

- A. Fibroblast
- B. Osteoblast
- C. Stem cells
- D. All of the above

18. Which of the following tissues has zero regenerative capacity?

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

19. The squamous suture joins the:-

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

20. Second degree burns are:

- A. The most painful burns
- B. Less painful than third degree burns
- C. Less painful than first degree burns
- D. More harmful than third degree burns.

21. The lumbar vertebra is:-

- A. Smaller than the cervical vertebrae
- B. Smaller than the thoracic vertebrae
- C. Strongest and largest vertebrae
- D. None of the above

22. The periosteal membrane covers the:-

- A. Skeletal muscle
- B. Fascicle
- C. Exterior of the bone
- D. Interior of the bone

23. Epiphyseal plate is an example of which joint?

- A. Synchondroses
- B. Gomphoses
- C. Symphyses
- D. Suture

24. Intervetebra joints are examples of which joint?

- A. Synchondroses
- B. Gomphoses
- C. Symphyses
- D. Suture

25. Interlocking joints held together by very short fibers are:-

- A. Symphyses
- B. Sutures
- C. Gomphoses
- D. Syndhodroses

SECTION 1 B MATCHING

COLUMN 1

- 1. Rotating the forearm laterally until the palm face anteriorly or superiorly.
- 2. Bone germinators
- 3. Bone destroyers
- 4. Only movable joint of the skull
- 5. Position where by ulna and radius are parallel.

COLUMN 2

- A. Pronation
- B. Supination
- C. TMJ
- D. Osteoblast
- E. Osteoclast

SECTION 1C TRUE (T) OR FALSE (F)

- 1. The hyoid bone is the only bone that does not articulate directly with other bones.....
- 2. The maxillary bone articulates with all facial bones except the mandible.....
- 3. The foramen magnum is the largest opening in the base of the skull.....
- 4. Fascicles of skeletal muscles are arranged in exactly the same method.....
- 5. The diaphragm is inferior to the abdominal cavity.....

SECTION 2 SHORT ANSWERS

QUESTION 1.

A. Briefly explain how the human body is structurally organized.

(10 Marks)

QUESTION 2.

A. Describe the difference between second degree burns and third degree burns.

(10 Marks)

QUESTION 3.

A. State the functions of facial bones.

(5 Marks)

QUESTION 4.

A. With the aid of a diagram describe the typical structure of the vertebrae.

(10 Marks)

QUESTION 5.

A. Discuss the typical structure of connective tissue.

(5 Marks)