

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING SCIENCE DEPARTMENT
SUPPLEMENTARY EXAMINATION: JULY 2014

COURSE TITLE: HUMAN ANATOMY AND PHYSIOLOGY 1
COURSE CODE: HSC 116
MARKS ALLOCATED 75
TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS:

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

 - iv) PLEASE ANSWER ALL QUESTIONS

 - v) SECTION 1 CARRIES 35 MARKS
 - vi) SECTION 2 CARRIES 40 MARKS

2. USE ANSWER SHEET FOR ALL YOUR ANSWERS

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

SECTION 1A
MULTIPLE CHOICE

Choose the most correct response for the questions/statements below and write it in your answer book.

1. Which of the following organs is made of mostly transitional epithelial tissue?

- A. Skin
- B. Mammary glands
- C. Trachea
- D. Urinary bladder

2. What is the function of fascia?

- A. Holds two bones together
- B. Stabilizes the joint
- C. Wraps muscles and nerves
- D. Attaches muscle to muscle

3. Aponeurosis is connective tissue that.....

- A. Binds bones together.
- B. Bind muscles together
- C. Attaches muscle
- D. Wraps nerves and blood vessels

4. What determines the colour of hair?

- A. Hemoglobin
- B. Melanin
- C. Carotene
- D. Age

5. Burns of the right anterior arm and left posterior leg accounts for----% of the body.

- A. 18
- B. 9
- C. 13.5
- D. 36

6. which of the following is produced by apocrine sweat glands?

- A. Sebum
- B. 99% water
- C. odorous smell
- D. None of the above

7. Choose the most abundant cartilage in the human body.

- A. Elastic cartilage
- B. Fibro cartilage
- C. Hyaline cartilage
- D. None of the above

8. which of the following bones is classified as an irregular bone?

- A. Ankle bone
- B. Phalanges
- C. Sternum
- D. Vertebral

9. The periosteum membrane covers which part of the body?

- A. Membrane covering body cavities
- B. Membrane lining the abdomen
- C. Membrane covering bone surface
- D. Membrane covering the heart

10. In which organ of the body are red blood cells formed?

- A. Red bone marrow of long bones
- B. Spongy bone of long bones
- C. Diploe of flat bones
- D. All of the above

11. The lamella is the structural part of which organ of the human body?

- A. Structural part of the joints
- B. Structural part of the compact bone
- C. Structural part of soft bone
- D. Structural part of a tree

12. Osteomalacia refers to.....

- A. Bone germinators
- B. Porous bone
- C. Soft bone
- D. Osteoblast

13. Which of the following is not an endochondral bone?

- A. Parietal bone
- B. Femur
- C. Phalanges
- D. Tibia

14. Dwarfism is a result of.....

- A. Excessive secretion of growth hormone
- B. Excessive production of testosterone
- C. Hyposecretion of thyroid and growth hormone
- D. Hypersecretion of estrogen

15. The following foramen is not part of the sphenoid bone.

- A. Foramen magnum
- B. Foramen ovale
- C. Foramen rotundum
- D. Foramen spinosum

16. The fetal vertebral column is made of.....

- A. 26 vertebrae
- B. 12 vertebrae
- C. 33 vertebrae
- D. 7 vertebrae

17. Which of the following are true ribs?

- A. Vertebrochondral ribs
- B. Verbral ribs
- C. Floating ribs
- D. Vertebrosteral ribs

18. False ribs of the human skeleton are.....

- A. 7 pairs
- B. 2 pairs
- C. 3 pairs
- D. None of the above

19. Carpus are formed by -----bones per limb.

- A. 5 bones
- B. 8 bones
- C. 7 bones
- D. 14 bones

20. Which part of the body has abundant smooth muscles?

- A. Heart
- B. Appendicular skeleton
- C. Hollow visceral organs
- D. Axial skeleton.

21. Which muscle is the most abundant in the human body?

- A. Smooth muscle
- B. Skeletal muscle
- C. Cardiac Muscle
- D. None of the above.

22. What is pronation?

- A. Turning of wrist to move radius around the ulna.
- B. Turning of wrist to move ulna around the radius.
- C. Moving the palm away from midline
- D. Moving the hand towards midline.

23. Rotation of the head is the function of the:-

- A. Axis
- B. Atlas
- C. Lumbar vertebra
- D. Cervical vertebra number seven

24. Which junctions help to prevent leakage of micro-organisms from the digestive tract to the circulatory system?

- A. Desmosomes
- B. Tight junctions
- C. Gap junctions
- D. Loose junctions

25. What is produced by eccrine sweat glands?

- a. 99% water
- b. odorous smell
- c. mucus
- d. sebum

SECTION 1B MATCHING

Match each of the statement/items in column A with the correct response in column B.
eg 1= A

COLUMN A

COLUMN B

- | | |
|---|--------------------------|
| 1. This joint is firmly secured by the acetabulum | A. Glenohumeral joint |
| 2. Death rigor peaks after....hours | B. Hip joint |
| 3. This joint is prone to luxation | C. 3 |
| 4. The lower extremities has a total of--- joints | D. Cell traffic director |
| 5. Cell growth phase | E. Metaphase |
| 6. Cell division | F Hydrophilic |
| 7. Mitochondria | G. Meiosis |
| 8. Golgi apparatus | H. Mitosis |
| 9. Cell division resulting in reproductive cells | I. Power house |
| 10. Phospholipids tails of the cell are | J. 24 |

SECTION 2 SHORT ANSWERS

QUESTION 1

A. Use the anatomist language to state the divisions of the vertebral column and the number of Vertebrae per division.

(10 MARKS)

B.

i). Name the keystone bone of the cranium.

ii). State the keystone bone of the face.

iii). Name the only movable joint of the skull.

iv). State the longest bone in the human body.

v). State the most complex and strongest joint of the body.

(10 MARKS)

QUESTION 2

A. State bones responsible for forming the vault of the skull, and their sutures?

(10 MARKS)

B. Miss Zwane accidentally cut her index finger while cutting vegetables and sustained a laceration. Using information learned in your anatomy and physiology class, describe the steps of tissue repair that will follow after this accident?

(10 MARKS)