

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION: MAY 2012

COURSE TITLE; HUMAN ANATOMY AND PHYSIOLOGY 11
COURSE CODE: HSC 117
TIME ALLOCATED: TWO (2) HOURS
MARKS ALLOCATED: 75

INSTRUCTIONS:

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

SECTION 1

A. MULTIPLE CHOICE:-

(20 MARKS)

Please choose the most appropriate response and write it on the answer book.

e.g. 1=D

1. The motor areas of the cerebral cortex are found in which lobe?
 - A. Occipital lobe
 - B. Frontal lobe
 - C. Parietal lobe
 - D. Temporal lobe

2. This area of the brain is responsible for language.
 - A. Left hemisphere
 - B. Association area
 - C. Brocas area
 - D. Right hemisphere

3. Musical instruments are controlled by which areas of the cortex?
 - A. Premotor cortex
 - B. Primary motor cortex
 - C. Primary Somatic sensory cortex
 - D. Visual area

4. John's ability to identify pens and pencils by texture and size is the function of the
 - A. Primary somatic sensory cortex
 - B. Somatic sensory association area
 - C. Premotor cortex
 - D. Visual association area

5. Idling brain is shown by this type of brain waves.
 - A. Beta waves
 - B. Delta waves
 - C. Alpha Waves
 - D. Both A and C

6. Ventricles are filled with:-
 - A. Cerebrospinal fluid
 - B. Plasma
 - C. Peritoneal fluid
 - D. Intracellular fluid

7. The longitudinal fissure separates;-
 - A. Lobes of the brain
 - B. Cerebral hemisphere and cerebellum
 - C. Right and left hemisphere
 - D. Separate large regions of the brain.

8. Typing is controlled by this part of the brain.
- A. Motor area
 - B. Premotor cortex
 - C. Primary motor cortex
 - D. Brocas area
9. Pyramidal crossing occurs in the:-
- A. Cerebellum
 - B. Pons
 - C. Cerebral Hemisphere
 - D. Medulla Oblongata
10. Delta brain waves indicate:-
- A. Brain Damage
 - B. Mental Alertness
 - C. Idling brain
 - D. None of the above.
11. This is the dominant sense in humans.
- A. Hearing.
 - B. Touch
 - C. Smell
 - D. Vision
12. Cerebrospinal fluid (CSF) is found in the:
- A. Sub-dural space
 - B. Sub-arachnoid space
 - C. Sub-pleural space
 - D. Intra-peritoneal space
13. The most common nervous system disorder is:-
- A. Epilepsy
 - B. Parkinson's disease
 - C. Huntington's disease
 - A. Cerebrovascular accidents
14. Choose the most common endocrine disease amongst middle and older age Swazis.
- A. Diabetes Mellitus
 - B. Hypertension
 - C. Graves' disease
 - D. Goiter

15. Neuroglia are responsible for..
- A. Propagation of action potential
 - B. Binding nervous tissue together
 - C. Both A and B
 - D. Generation of action potential
16. Gray matter of the Central Nervous System is formed by..
- A. Cell bodies
 - B. Dendrites
 - C. Unmyelinated axons
 - D. All of the above
17. Which of the following glands is a neuroendocrine gland?
- A. Pancreas
 - B. Thyroid
 - C. Hypothalamus
 - D. Placenta
18. The endocrine system is associated with..
- A. Growth
 - B. Quick response
 - C. Development
 - D. A and C
19. The following are neuroglia of the central nervous system except.
- A. Astrocytes cells
 - B. Oligodendrites cells
 - C. Microglia cells
 - D. Schwann cells
20. Which class of neurons are mainly found in the eyes
- A. Bipolar
 - B. Multipolar
 - C. Unipolar
 - D. All of the above

SECTION 1B

MATCHING

(10 MARKS)

Match the statement in column B with most appropriate response in column A

- | | |
|---------------------------------------------------|----------------------|
| 1. The major sensory nerve of the face. | A. Phrenic nerve |
| 2. It regulates the activities of the heart | B. Hypothalamus |
| 3. Serve the tongue muscles | C. Radial nerve |
| 4. Allows individuals to chew food | D. Vagus nerve |
| 5. Supply's' the diaphragm | E. Medulla Oblongata |
| 6. Muscles that extend the wrist digitalis | F. Trigeminal nerve |
| 7. It controls body temperature | G. Cerebellum |
| 8. It the control centre of the cardiac system | H. Schwan cells |
| 9. Responsible for body coordination | I. Facial nerve |
| 10. It helps to engulf and digest bacteria of CNS | J. Microglia |

SECTION 1 C

TRUE OR FALSE

(5 MARKS)

1. Females are more prone to cystitis than males.
2. Nocturnal enuresis is a condition that affects children only
3. Vagotomy helps to reduce release of gastric juices in the abdomen.
4. Loss of vision is associated with cranial nerve number 11.
5. Geometric skills are controlled by the right hemisphere.

SECTION 2

SHORT ANSWERS AND ESSAYS.

Please read the questions carefully and answer all questions in this section.

QUESTION 1 = (40 MARKS)

- A. Describe the process of urine formation/ (10 marks)
- B. i) Thuli is writing her final semester examination, describe the mental process that helps her to remember information learned on the first day of class. (5 marks)
- C. Define the following terms (20 marks)
1. Saltatory conduction
 2. Paraplegia
 3. Retrograde amnesia
 4. Meningitis
 5. Insomnia
 6. Anencephaly
 7. Ovulation
 8. Papanicolaou smear
 9. Myometrium
 10. Endometrium
- D. Briefly discuss why the male scrotum shrinks with decrease in temperature and elongate with increase in temperature. (5 marks)