

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION: MAY 2015

COURSE TITLE; HUMAN ANATOMY AND PHYSIOLOGY 11
COURSE CODE: HSC 117
TIME ALLOCATED: TWO (2) HOURS
MARKS ALLOCATED: 80
TOTAL NO. OF PAGES: 7

INSTRUCTIONS:

1. THERE ARE TWO SECTIONS IN THIS PAPER.
 - i) SECTION 1 A. MULTIPLE CHOICES
B. MATCHING
 - ii) SECTION 2 IS SHORT ANSWERS AND ESSAYS
2. PLEASE ANSWER ALL SECTIONS
 - ii) SECTION 1 CARRIES 35 MARKS
 - ii) SECTION 2 CARRIES 45 MARKS
3. USE ANSWER SHEET FOR ALL YOUR ANSWERS
4. DO NOT OPEN YOUR QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY INVIGILATOR.

SECTION 1

A. MULTIPLE CHOICE QUESTIONS:-

(28 MARKS)

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

e.g. 1 = C

1. Which structure of the eye houses the photo receptors?
 - A. Iris
 - B. Cornea
 - C. Retina
 - D. Pupil

2. This receptor is highly sensitive to colour vision.
 - A. Cones
 - B. Rods
 - C. Both A and B
 - D. None of the above

3. Which type of corrective lenses does a myopic individual need?
 - A. Concave
 - B. Convex
 - C. Both A and B
 - D. None of the above

4. Blockage of the aqueous humour result in pressure build up in the chamber which many lead to ...
 - A. Glaucoma
 - B. Compression of the optic nerve and retina
 - C. Blindness
 - D. All of the above

5. The semilunar canal of the inner ear is filled with...
 - A. Cerebrospinal fluid
 - B. Water
 - C. Perilymph
 - D. Air

6. The process of urine formation includes the following steps **except**...
 - A. Filtration
 - B. Reabsorption
 - C. Secretion
 - D. Osmosis

7. Which is the smallest functional unit of the kidney?
- A. Neuron
 - B. Cell
 - C. Nephron
 - D. Nerve
8. Which of the following divisions is responsible for digestion?
- A. The parasympathetic division
 - B. The sympathetic division
 - C. The D. division
 - D. Both A and C
9. Which division is responsible for the human body's response to emergencies?
- A. The D division
 - B. The E division
 - C. The B division
 - D. None of the above
10. Today you are taking you final examination of semester two. Which of the following will help you remember information learned during the first week of the semester?
- A. Anterograde memory
 - B. Retrograde memory
 - C. Anterograde amnesia
 - D. Retrograde amnesia
11. Five minutes before entering the examination room you were reciting the cranial nerves, ten minutes later; you cannot remember even one nerve. Which is the most appropriate diagnose for this condition?
- A. Amnesia
 - B. Anterograde amnesia
 - C. Retrograde amnesia
 - D. anosmia
12. Which cranial nerve is responsible for vision?
- A. The optic nerve
 - B. The olfactory nerve
 - C. The facial nerve
 - D. The retina
13. Ovulation occurs on which day of the menstrual cycle?
- A. The 1st day
 - B. The 3rd day
 - C. The 14th day
 - D. The 28th day

14. The major problem experienced by clients with prostate enlargement is...
- A. Pain
 - B. Developing cancer
 - C. Inability to pass urine
 - D. Importance
15. Females are prone to urinary bladder infection because ...
- A. The urethra is short
 - B. The proximity of the anal orifice to the urethra
 - C. of poor hygiene
 - D. None of the above
16. Cranial ventricles are filled with
- A. Cerebrospinal fluid
 - B. Plasma
 - C. Peritoneal fluid
 - D. Intracellular fluid
17. The cardiac ventricles are filled with.....
- A. Perilymph
 - B. Blood
 - C. Peritoneal fluid
 - D. Intracellular fluid
18. Which nerve is crucial when giving intramuscular injection?
- A. Pudendal nerve
 - B. Femoral nerve
 - C. Sciatic nerve
 - D. Both A and B
19. Which type of blood is transfused to treat anaemia?
- A. Whole blood
 - B. Platelets
 - C. Packed red cell
 - D. Both A and B
20. When the visualized object falls behind the retina, the individual is..
- A. Myopic
 - B. Hyperopic
 - C. Having glaucoma
 - D. Having strabismus

21. Which is the most important accessory organ of chemical digestion?
A. Stomach
B. Liver
C. Gallbladder
D. Pancreas
22. Liver cirrhosis is ...
A. Hardening of the liver due to chronic inflammation.
B. Closely associated with chronic alcoholism and chronic hepatitis.
C. Both A and B
D. None of the above
23. Which of the following is the major digestive organ in humans?
A. Mouth
B. Stomach
C. Ilium
D. Liver
24. The primary set of teeth consists of...
A. Twenty teeth
B. 8 incisors, 4 canines and 8 premolars
C. 2 molars, 8 incisors, 4 premolars and 2 canines.
D. Both A and B
25. Peritonitis is...
A. Study and treatment of diseases of the colon and the rectum
B. Inflammation of the stomach
C. Inflammation of the mouth
D. inflammation of the inside wall of the abdomen
26. How many litres of blood pass through the cardiac ventricles in one minute?
A. 1L
B. 2 L
C. 5 L
D. 500 mls
27. Which valve separates the left atrium and left ventricle?
A. Bicuspid
B. Tricuspid
C. Semilunar valve
D. Mitral Valve
28. Which valve separates the right atrium and the right ventricle?
A. Bicuspid
B. Mitral valve
C. Tricuspid

D. None of the above.

(28 MARKS)

SECTION 1 B

MATCHING

(TOTAL MARKS 7)

SENARIO 1

You are from a family of four:-

- A. Your father John is blood group O
- B. Your mother Mary is blood group AB
- C. Your sister Thuli is blood group A-
- D. You are T.K. your blood group is B

Based on scenario 1, answer question 1-5 below using the alphabets A-D on the scenario.

Eg. 1= D

1. Which of the following family members is a universal donor?
2. Which of the members is a universal recipient?
3. Who can safely donate blood for TK?
4. Who can safely donate blood for Mary?
5. Amongst the family members who is likely to have problems finding a donor, explain you response. (3)

(7 MARKS)

SECTION 2 SHORT ANSWER AND ESSAYS

(TOTAL MARKS 45)

QUESTION 1

(15 MARKS)

- A. During lunch, you ate deep fried potatoes and chicken. Explain the chemical digestion of the potatoes from start to finish. (6)
- B. Briefly discuss the physiology of the large intestine. (6)
- C. State three enzymes produced by the pancreas. (3)

QUESTION 2

(20 MARKS)

- A. List the benefits of giving immunization (4)
- B. Differentiate between active humoral and passive humoral immunity. (4)
- C. Define antibodies and state four functions of antibodies. (5)
- D. Define the following homeostatic imbalances. (7)
 - i) Ischemic hypoxia
 - ii) Anaemic hypoxia
 - iii) Heimlich manoeuvres
 - iv) Pneumothorax
 - v) CVA
 - vi) Coma
 - vii) Hemiplegia

QUESTION 3

(10 MARKS)

- A. State five functions of the spleen. (5)
- B. List the three layers of the cardiac muscle. (3)
- C. Differentiate between EKG and EEG (2)