

UNIVERSITY OF EMBU

2017/2018 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (NURSING)

HNS 121: HUMAN ANATOMY II

DATE: APRIL 12, 2018

TIME: 8:30 AM-1:00PM

INSTRUCTIONS:

Answer:

2.3/

All MCQs in Section A;

All Short-answer Questions in Section B

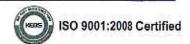
All Long-answer Questions in Section C

Cancelled work should be done neatly by crossing with a single line in the essay and by use of X in the MCQs

SECTION A: MULTIPLE CHOICE QUESTIONS (TOTAL: 20 MARKS)

Write the correct answers on the first page of the answer booklet.

- 1. Secondary lymphatic organs include:
 - A) Thymus
 - B) Bone marrow
 - C) Spleen
 - D) Tonsils



- 2. All of the following cells are associated with the thymus EXCEPT:
 - A) Plasma
 - B) Dendritic
 - C) Thelper
 - D) Macrophages
- 3. Mucosa associated lymphoid tissues (MALT) are mainly associated with:
 - A) Heart
 - B) Intestines
 - C) Liver
 - D) Kidneys
- 4. Arterial branches of the arch of the aorta include:
 - A) Coronary arteries
 - B) Right subclavian artery
 - C) Pulmonary trunk
 - D) Left common carotid artery
- 5. Concerning blood flow from the heart:
 - A) Pulmonary arteries carry oxygenated blood from the heart
 - B) Flow from the left ventricle is dependent on the bicuspid valve
 - C) The aortic valve prevents backflow of the blood from the right ventricle
 - D) Emptying of the left atrium is mainly through its pumping action
- 6. Portal hepatic vein is formed by union of several veins. These include:
 - A) Splenic, inferior mesenteric
 - B) Gonadal, posterior mesenteric
 - C) Gastric, renal
 - D) Posterior mesenteric, hepatic
- 7. Components of the circle of Willis include:
 - A) Middle cerebral, basilar
 - B) Posterior cerebral, middle cerebral
 - C) Internal carotid, anterior cerebral
 - D) Basilar, vertebral

- 8. Concerning the erythrocytes:
 - A) Contain numerous mitochondria
 - B) Contain minute granules
 - C) May have a small nucleus
 - D) Has a flexible plasma membrane
- 9. Concerning albumin:
 - A) Constitutes 38% of the plasma proteins
 - B) Has the shortest half live
 - C) Decrease in liver disease
 - D) Inhibit proteases
- 10. The ratio of leukocytes to erythrocytes is:
 - A) 1:60
 - B) 1:600
 - C) 1:6000
 - D) 1:60,000
- 11. Rotator cuff muscles of the shoulder include:
 - A) Deltoid, supraspinatus
 - B) Infraspinatus, teres minor
 - C) Deltoid, teres major
 - D) Teres major, subcapsularis
- 12. Muscles of the neck include:
 - A) Platysma, sternocleidomastoid
 - B) Trapezius, Lattismus dorsi
 - C) Sternocleidomastoid, buccinators
 - D) Platysma, obicularis oculi
- 13. The main action of the posterior thigh muscle is:
 - A) Flexion at the hip joint
 - B) Flexion at the knee joint
 - C) Extension at the knee joint
 - D) Extension at the hip joint

- 14. Bones constituting the proximal row of the carpus include;
 A) Triquetrum
 B) Trapezoid
 C) Capitate
 D) Scaphoid
- 15. The squamous suture separates the parietal bone from the:
 - A) Occipital bone
 - B) Frontal bone
 - C) Temporal bone
 - D) Zygomatic bone
- 16. Thoracic and lumbar vertebrae are different in that the lumbar vertebrae:
 - A) Has a bifid spinous process
 - B) Has a massive block like body
 - C) Has lateral masses
 - D) As a round vertebral foramina
- 17. Talocrural(ankle) joint is formed by the articulation of tibia and:
 - A) Talus
 - B) Fibula
 - C) Calcaneous
 - D) Navicular
- 18. The most abundant epidermal cell is:
 - A) Melanocytes
 - B) Langerhans
 - C) Keratinocytes
 - D) Merkel cell
- 19. The epidermal layer where melanin is produced is the stratum:
 - A) Spinosum
 - B) Corneum
 - C) Granulosum
 - D) Basale

- 20. Dermal papillae is associated with:
 - A) Sudoriferous glands
 - B) Meissner's corpuscles
 - C) Hair follicles
 - D) Sebaceous glands

SECTION B: SHORT ANSWER QUESTIONS (40 MARKS)

| 1. | State five (5) differences between eccrine and apocrine sweat glands | (5 marks) |
|----|--|-----------|
| 2. | Describe the two (2) layers of the dermis | (4 marks) |
| 3. | Outline five (5) differences between cardiac and smooth muscles | (5 marks) |
| 4. | Describe briefly the muscles associated with the upper arm | (6 marks) |
| 5. | Describe the structural organization of the pericardium | (5 marks) |
| 6. | With an example of each state any three (3) types of joints | (6 marks) |
| 7. | Classify bones based on the shape | (5 marks) |
| 8. | Enumerate four (4) differences between blood and lymph | (4 marks) |

SECTION C: LONG ANSWER QUESTIONS

- 1. Lymphatic system drain excess interstitial fluid from the tissues back into blood circulation
 - a) Utilizing a well labeled diagram describe the route of flow of lymph through a lymph node
 (10 marks)
 - b) Discuss the five (5) lymphatic trunks (10 marks)
- Blood capillaries connect the arteries and capillaries. They also form the site of exchange of materials between blood and tissues.
 - a) Describe the histology of an artery (11 marks)
 - b) Describe the three(3) types of capillaries indicating two areas where each is found (9 marks)

--END--

