

091205T4PTT

PERIOPERATIVE THEATER TECHNOLOGY 5

HE/OS/TT/CC/01/5/A

Demonstrate Knowledge of Human Anatomy and Physiology

Nov/Dec. 2023



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 hours

INSTRUCTIONS TO CANDIDATES

1. This paper has three sections **A, B** and **C**.
2. You are provided with a separate answer booklet.
3. Marks for each question are as indicated.
4. Do not write on the question paper.

This paper consists of 7 printed pages

**Candidates should check the question paper to ascertain that all pages
are printed as indicated and that no questions are missing.**

SECTION A: (20 MARKS)

*Answer **all** questions in this section.*

Each question carries one Mark.

1. One of the following is flexible connective tissue that is attached to bones at the joints.
 - A. Adipose
 - B. Cartilage
 - C. Epithelial
 - D. Muscle

2. The structure located beneath the diaphragm in the left upper quadrant of the abdominal cavity is:
 - A. Duodenum
 - B. Gallbladder
 - C. Pancreas
 - D. Spleen

3. Organelle which synthesizes proteins from amino acids and are composed of ribonucleic acid is referred to as:
 - A. Ribosomes.
 - B. Mitochondria.
 - C. Golgi apparatus.
 - D. Endoplasmic reticulum.

4. Which of the following cavities are separated by the diaphragm?
 - A. Abdominal and pelvic
 - B. Dorsal and ventral
 - C. Pericardial and pleural
 - D. Thoracic and abdominal

5. Which of the following terms describes the motion of bending the forearm toward the body?
 - A. Abduction
 - B. Eversion
 - C. Flexion
 - D. Supination

6. The anatomic location of the spinal canal is:
 - A. Caudal
 - B. Dorsal
 - C. Frontal
 - D. Ventral
7. Which of the following is the large bone found superior to the patella and inferior to the ischium?
 - A. Calcaneus
 - B. Femur
 - C. Tibia
 - D. Ulna
8. Which of the following controls body temperature, sleep, and appetite?
 - A. Adrenal glands
 - B. Hypothalamus
 - C. Thalamus
 - D. Thyroid gland
9. Which of the following best describes the location where you can palpate the carotid pulse?
 - A. In the antecubital space
 - B. In the middle of the groin
 - C. On the anterior side of the neck
 - D. On the medial aspect of the wrist
10. A patient sustains severe blunt trauma to the left upper abdomen and requires surgery. Which one of the following organs is most likely to be involved?
 - A. Gallbladder
 - B. Pancreas
 - C. Liver
 - D. Spleen
11. Oxygenated blood is carried to the heart by which of the following structures:
 - A. Aorta
 - B. Inferior vena cava

- C. Pulmonary veins
 - D. Superior vena cava
12. The thoracic cage is a structural unit important for which of the following functions?
- A. Alimentation
 - B. Menstruation
 - C. Mentation
 - D. Respiration
13. Which of the following allows gas exchange in the lungs?
- A. Alveoli
 - B. Bronchi
 - C. Bronchioles
 - D. Capillaries
14. Which of the following is an accessory organ of the gastrointestinal system that is responsible for secreting insulin?
- A. Adrenal gland
 - B. Gallbladder
 - C. Liver
 - D. Pancreas
15. Which of the following best describes the process whereby the stomach muscles contract to propel food through the digestive tract?
- A. Absorption
 - B. Peristalsis
 - C. Regurgitation
 - D. Secretion
16. In men, which of the following structures is located at the neck of the bladder and surrounds the urethra?
- A. Epididymis
 - B. Prostate
 - C. Seminal vesicle
 - D. Vas deferens

17. Which of the following are mucus-producing glands located on each side of the vaginal opening?
- A. Bartholin's
 - B. Bulbourethral
 - C. Corpus luteum
 - D. Parotid
18. Calcium, potassium, and sodium are classified as which of the following?
- A. Androgens
 - B. Catecholamines
 - C. Electrolytes
 - D. Prostaglandins
19. The organelles within the cell whose main functions are digestion and hydrolysis?
- A. Lysosomes
 - B. Ribosomes
 - C. Mitochondria
 - D. Golgi bodies
20. The study of small body structures, often too small to be seen with the naked eye?
- A. Embryology
 - B. Cytology
 - C. Microscopic anatomy
 - D. Developmental anatomy

SECTION B: 40 MARKS

Answer all questions in this section.

21. Draw a well-labeled diagram of a neuron. (4 marks)
22. State TWO hormones secreted by the posterior pituitary gland outlining one function for each. (4marks)
23. State FOUR types of bones and give an example for each. (4 marks)
24. Identify the FOUR boundaries of the thoracic cavity. (4 marks)
25. With one example, identify the FOUR stratified squamous epithelia. (4 marks)
26. Outline TWO roles of the structures found in the middle ear. (2 marks)
27. Identify the THREE anatomical planes used in anatomy. (4 marks)
28. State any FOUR functions of the skeletal system. (4 marks)
29. With functions, identify THREE structures of the internal female reproductive system. (6 marks)
30. Differentiate between pulmonary circulation and systemic circulation. (4 marks)

SECTION C: (40 MARKS)

Answer any TWO questions in this section

31. Patient X was found to be unconscious after an accident. You are expected to palpate a pulse to confirm circulation.
- a) Name any SIX anatomical areas where pulsation can be palpated. (6 marks)
 - b) Explain any FOUR factors that may affect pulse. (8 marks)
 - c) Identify THREE components of blood. (3 marks)
 - d) Identify any THREE blood vessels involved in circulation. (3 marks)
32. The nervous system is made of several components.
- a) Explain the TWO main divisions of the nervous system (8 marks)
 - b) Highlight the TWELVE cranial nerves in their order. (12 marks)
33. The kidney is the main excretory organ and is composed of about 1 – 2 million nephron.
- a) Draw a well-labeled diagram of a nephron and associated blood vessels. (5 marks)
 - b) Describe the THREE processes of urine formation. (15 marks)