

STUDENT NUMBER Letter

VCE VET HEALTH

Written examination

Tuesday 15 November 2022

Reading time: 9.00 am to 9.15 am (15 minutes)

Writing time: 9.15 am to 10.45 am (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	20	20	20
B	15	15	50
C	8	8	30
			Total 100

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or correction fluid/tape.

Materials supplied

- Question and answer book of 15 pages
- Answer sheet for multiple-choice questions

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.
- All written responses must be in English.

At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

SECTION A – Multiple-choice questions**Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1; an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.

Question 1

The highest level of organisation in the human body is

- A. organ systems.
- B. tissues.
- C. organs.
- D. cells.

Question 2

Which one of the following strategies will help maintain normal blood pressure?

- A. a diet with a high level of salt
- B. high stress levels
- C. eating fruit and vegetables
- D. smoking cigarettes

Question 3

Which part of the eye is pigmented?

- A. cornea
- B. sclera
- C. lens
- D. iris

Question 4

Which one of the following waste products is eliminated by the integumentary system?

- A. carbon dioxide
- B. amino acids
- C. faeces
- D. salt

Question 5

An example of the first line of defence is

- A. inflammation and swelling.
- B. tears.
- C. leukocytes.
- D. fever.

Question 6

The decrease in the size of an organ or body tissue due to lack of stimulation is known as

- A. hyperplasia.
- B. dysplasia.
- C. atrophy.
- D. hypertrophy.

Question 7

A function of the large intestine is the

- A. absorption of water and some electrolytes.
- B. neutralisation of hydrochloric acid.
- C. mixing and segmentation of food.
- D. secretion of digestive enzymes.

Question 8

A sympathetic nervous system response is

- A. narrowing of the airways.
- B. increased urine output.
- C. decreased heart rate.
- D. goosebumps.

Question 9

The hip joint is an example of a

- A. ball-and-socket joint.
- B. hinge joint.
- C. plane joint.
- D. pivot joint.

Question 10

A patient has a cerebrovascular accident (CVA) that results in injury to the frontal lobe of the brain.

What possible symptoms may the patient experience?

- A. visual disturbances with dizziness
- B. poor concentration and speech
- C. poor sense of smell and taste
- D. loss of hearing

Question 11

A movement that decreases the angle of a joint and brings two bones together is known as

- A. abduction.
- B. extension.
- C. rotation.
- D. flexion.

Question 12

Which one of the following is the meaning of 'peri-'?

- A. above
- B. below
- C. within
- D. around

Question 13

The function of the bones in the middle ear is to

- A. protect the inner ear from foreign particles.
- B. maintain the structure of the ear.
- C. amplify soundwaves.
- D. maintain balance.

Question 14

Which valve is located between the right atrium and the right ventricle?

- A. pulmonary valve
- B. tricuspid valve
- C. bicuspid valve
- D. aortic valve

Question 15

Which one of the following is the suffix that means 'enlargement'?

- A. -megaly
- B. -tomy
- C. -itis
- D. -ism

Question 16

The function of bile is to break down

- A. carbohydrates in the small intestine.
- B. amino acids in the stomach.
- C. maltase in digestion.
- D. fats in digestion.

Question 17

Which one of the following medical terms best describes a slow heart rate?

- A. systole
- B. bradycardia
- C. tachycardia
- D. asystole

Question 18

The septum is a structure in the heart that

- A. separates the left and right sides of the heart.
- B. transports blood to the lungs.
- C. transports blood to the heart.
- D. prevents the backflow of blood.

Question 19

Which one of the following is the root word for 'skin'?

- A. duoden/
- B. proct/
- C. derm/
- D. chloe/

Question 20

Which blood vessel carries oxygenated blood to the heart?

- A. pulmonary artery
- B. pulmonary vein
- C. vena cava
- D. aorta

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**END OF SECTION A
TURN OVER**

SECTION B

Instructions for Section B

Answer **all** questions in the spaces provided.

Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.

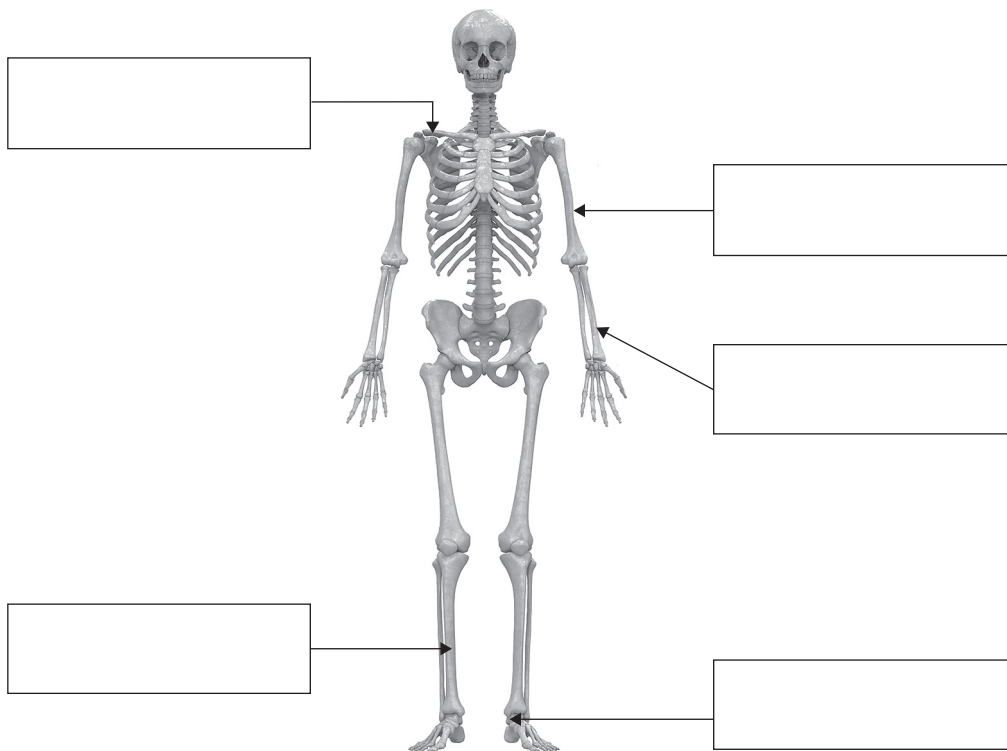
Question 1 (5 marks)

The diagram below shows the human skeletal system.

In each box provided, state the name of the part indicated, using the following list:

- humerus
- femur
- phalanges
- ulna
- tibia
- patella
- radius
- tarsals
- clavicle

Human skeletal system – Anterior view



Source: Magic mine/Shutterstock.com

Question 2 (2 marks)

Describe the difference between chemical digestion and mechanical digestion.

Question 3 (3 marks)

Use the following list of body systems to complete the table below:

- respiratory system
- urinary system
- digestive system
- reproductive system
- cardiovascular system
- immune system

Main function	Body system
filters the blood to remove waste and excess water	
supplies the blood with oxygen and removes carbon dioxide from the blood	
defends the body against infection	

Question 4 (4 marks)

The muscular system consists of three types of muscles.

- a. Name the three types of muscles. 3 marks

- b. Which of the three types of muscles is under voluntary control? 1 mark

Question 5 (3 marks)

Provide the singular form of each medical term listed in the table below.

Medical term in plural form	Medical term in singular form
scapulae	
appendices	
alveoli	

Question 6 (1 mark)

The myelin sheath is an insulating layer that forms around nerve cells.

Other than insulating nerve cells, identify **one** function of the myelin sheath.

Question 7 (2 marks)

Compare two differences between veins and arteries.

1. _____

2. _____

Question 8 (3 marks)

The lymphatic system is a network of vessels and organs that forms part of the immune system.

Identify **one** function of each organ of the lymphatic system listed below.

Thymus _____

Spleen _____

Peyer's patches _____

Question 9 (4 marks)

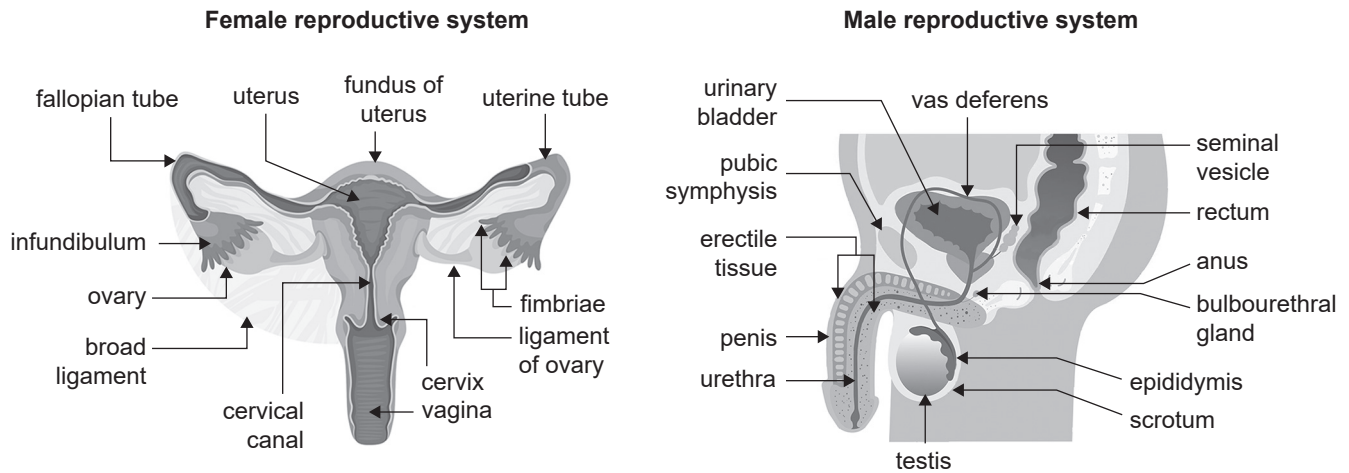
Complete the table below by identifying the word parts of each medical term listed.

Medical term	Prefix	Root word	Combining vowel	Suffix
pericarditis				
valvuloplasty				
colonoscopy				
neuralgia				

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Question 10 (5 marks)

The diagrams below show the female and male reproductive systems.



Sources (from left): logika600/Shutterstock.com; Nostagrams/Shutterstock.com

In the table below, identify **one** function of each organ relating to the reproductive system.

Reproductive organ	Function of reproductive organ
fallopian tube	
ovary	
urethra	
testis	
vas deferens	

Question 11 (4 marks)

Use the following list of medical terms to complete the table below:

- lymphoma
- cystitis
- hepatectomy
- oncologist
- lymphoedema
- nephritis
- hepatitis
- oncology

Explanation	Medical term
tumour of lymph tissue	
inflammation of the kidney	
specialist who treats people diagnosed with cancer	
surgical removal of the liver	

Question 12 (2 marks)

Explain how the skin protects the body from infection.

Question 13 (4 marks)

The endocrine system regulates the release of the hormones adrenaline and glucagon.

Identify the gland that produces adrenaline and the organ that produces glucagon, and outline the action of each hormone.

Gland that produces adrenaline _____

Action of adrenaline _____

Organ that produces glucagon _____

Action of glucagon _____

Question 14 (3 marks)

Read the following sentences carefully and identify the correct spelling of the medical term in **bold type**.

- A section of the large intestine is called the **caecum** / **saecum**.

- The structure that attaches muscles to bones is called the **tendin** / **tendon**.

- An organ that becomes inflamed when fighting infection is called the **tonsil** / **tonsol**.

Question 15 (5 marks)

Use the following list of root words to complete the table below:

- gloss/
- encephal/
- stoma/
- my/
- haema/
- cyst/
- chondr/
- rhin/

Structure	Root word
mouth	
blood	
cartilage	
muscle	
brain	

SECTION C – Case study**Instructions for Section C**

Answer **all** questions in the spaces provided.

Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.

Use the following information to answer Questions 1–4.

Case study 1

Francis is an allied health assistant at a local hospital. She has been asked to take three patients through their exercise programs. The physiotherapist has provided Francis with the following handover notes.

Patient name	DOB	Health history	Other information
Anika	12/03/1957	<ul style="list-style-type: none"> hypertension overweight past medical history: <ul style="list-style-type: none"> myocardial infarction 	<ul style="list-style-type: none"> takes medication twice daily to maintain blood pressure
Doug	04/06/1977	<ul style="list-style-type: none"> emphysema smoker past medical history: <ul style="list-style-type: none"> 2017 – biopsy of right lung 	<ul style="list-style-type: none"> takes emphysema medication twice daily can easily get anxious when he is short of breath
Joan	23/08/1949	<ul style="list-style-type: none"> left lower-leg cellulitis 	<ul style="list-style-type: none"> gentle exercise program

Question 1 (2 marks)

Doug currently takes medication for his emphysema.

Identify two other ways in which Doug can help maintain a healthy respiratory system.

1. _____

2. _____

Question 2 (5 marks)

Provide the correct abbreviation for each medical term given in Case study 1.

Twice daily _____

Blood pressure _____

Past medical history _____

Biopsy _____

Short of breath _____

Question 3 (4 marks)

- a. Francis is looking for the meaning of ‘cellulitis’.

Other than using medical terminology websites, identify two ways in which Francis can find the meaning of ‘cellulitis’.

2 marks

1. _____

2. _____

- b. Francis has been asked to update the patients’ notes to include attendance and her observations of the patients during their exercise program.

Identify **two** ways in which Francis can maintain the confidentiality of the patients’ notes during their exercise program.

2 marks

Question 4 (4 marks)

Emphysema can be caused by smoking. Smoking causes damage to the respiratory cilia.

- a. Identify two structures within the respiratory system in which cilia can be found.

2 marks

1. _____

2. _____

- b. Describe cilia and their role in maintaining a healthy respiratory system.

2 marks

Use the following information to answer Questions 5–8.

Case study 2

Penny is a 72-year-old female patient admitted to hospital. She is receiving treatment for a UTI.

Symptoms

- haematuria
- frequent urge to urinate
- incontinence
- confusion
- lethargy and general weakness
- burning sensation during urination

Investigations

- renal U/S
- urinalysis showing leukocytes

Treatment plan

- oral antibiotics QID
- aiming for discharge in 1/52

Penny requires assistance with ADLs and with mobilising. Ben, the allied health assistant, is asked to supervise Penny with walking and with her ADLs.

Question 5 (4 marks)

Complete the table below by providing the full medical term for each abbreviation listed.

Abbreviation	Full medical term
UTI	
ADL	
U/S	
1/52	

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Question 6 (3 marks)

Besides the urethra, the urinary system consists of the following three structures: ureters, bladder and kidneys.

Identify **one** function of each of these structures.

Ureters _____

Bladder _____

Kidneys _____

Question 7 (2 marks)

The medical terms listed in the table below can be found in Case study 2.

Provide the correct definition for each medical term.

Medical term	Definition
haematuria	
renal	

Question 8 (6 marks)

‘Urinary incontinence’ refers to the loss of bladder control.

- a. Describe how the nervous system and the muscular system work together to achieve bladder control. 3 marks

- b. List three lifestyle strategies that Penny could implement to maintain a healthy, functioning urinary system. 3 marks

1. _____

2. _____

3. _____