

STUDENT NUMBER Letter

VCE VET HEALTH

Written examination

Monday 6 November 2023

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	19	19	50
C	12	12	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 21 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

A cytologist is a specialist in the study of

- A. muscles.
- B. tissues.
- C. organs.
- D. cells.

Question 2

The release of an ovum or egg from the ovary is known as

- A. insemination.
- B. fertilisation.
- C. ovulation.
- D. gestation.

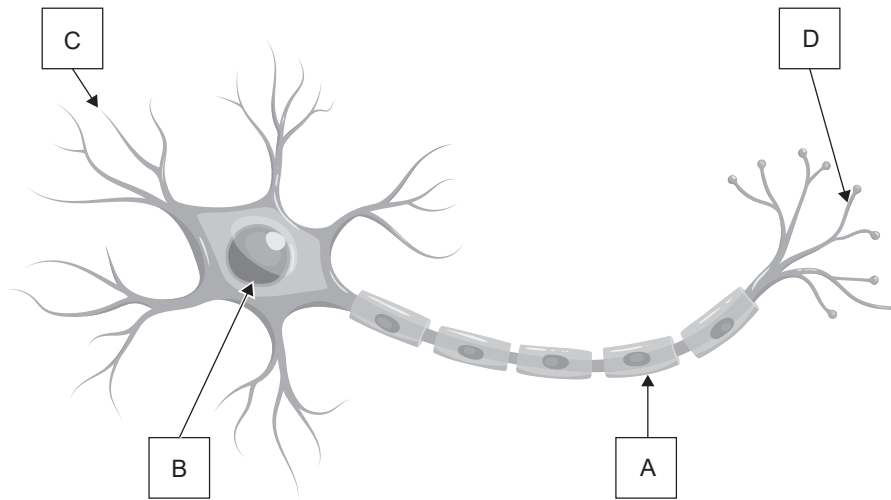
Question 3

Endocrine glands secrete substances called

- A. hormones.
- B. enzymes.
- C. sweat.
- D. bile.

Question 4

Below is an image of a neuron.



Source: LDarin/Shutterstock.com

Identify which arrow is pointing to a dendrite.

- A. arrow A
- B. arrow B
- C. arrow C
- D. arrow D

Question 5

What does the term dysmenorrhea mean?

- A. beginning of menstruation
- B. absence of menstruation
- C. normal menstruation
- D. painful menstruation

Question 6

Osteoblasts are best described as

- A. bone transporting cells.
- B. bone destroying cells.
- C. bone forming cells.
- D. bone shaping cells.

Question 7

Which of the following shows the correct order in which blood travels through the heart?

- A. right atrium → right ventricle → pulmonary vein → pulmonary artery → left atrium → left ventricle → aorta
- B. right atrium → right ventricle → pulmonary artery → pulmonary vein → left atrium → left ventricle → aorta
- C. left atrium → left ventricle → pulmonary artery → pulmonary vein → right atrium → right ventricle → aorta
- D. left ventricle → left atrium → pulmonary artery → pulmonary vein → right atrium → right ventricle → aorta

Question 8

Identify which is likely to occur when blood pressure is consistently high.

- A. increased peripheral resistance in blood vessels
- B. increased arterial elasticity
- C. low blood volume
- D. low heart rate

Question 9

The tongue contains taste receptors. Other than sweet, sour and salty, another taste receptor is

- A. buttery.
- B. umami.
- C. poultry.
- D. fishy.

Question 10

What is the major function of mitochondria within a cell?

- A. cellular respiration
- B. protein production
- C. lipid synthesis
- D. DNA production

Question 11

In the human body, the location of the thymus can be described as

- A. posterior to the cerebellum.
- B. anterior to the sternum.
- C. superior to the spleen.
- D. inferior to the heart.

Question 12

In the word suprascapular, 'supra' is the

- A. combining vowel.
- B. root word.
- C. suffix.
- D. prefix.

Question 13

Which of the following is a sign of an inflammatory response?

- A. no change to skin colour tone
- B. feeling cold
- C. swelling
- D. no pain

Question 14

Which gland in the integumentary system produces oil?

- A. sebaceous gland
- B. pituitary gland
- C. eccrine gland
- D. sweat gland

Question 15

Which plane divides the body into equal left and right halves?

- A. transverse plane
- B. sagittal plane
- C. coronal plane
- D. oblique plane

Question 16

How many lobes does the left lung contain?

- A. 1
- B. 2
- C. 3
- D. 4

Question 17

The abbreviation **CABG** stands for

- A. congestive arteritis bypass graft.
- B. congestive artery bypass graft.
- C. coronary arteritis blood graft.
- D. coronary artery bypass graft.

Question 18

ICU stands for

- A. Independent Cardiac Unit.
- B. Intensive Care Unit.
- C. Inpatient Care Unit.
- D. Isolated Client Unit.

Question 19

What is the plural form for the medical term 'ganglion'?

- A. gangliomas
- B. ganglions
- C. ganglius
- D. ganglia

Question 20

The lower jawbone is also called the

- A. orthodontic.
- B. mandible.
- C. cranium.
- D. zygoma.

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

CONTINUES OVER PAGE

TURN OVER

SECTION B

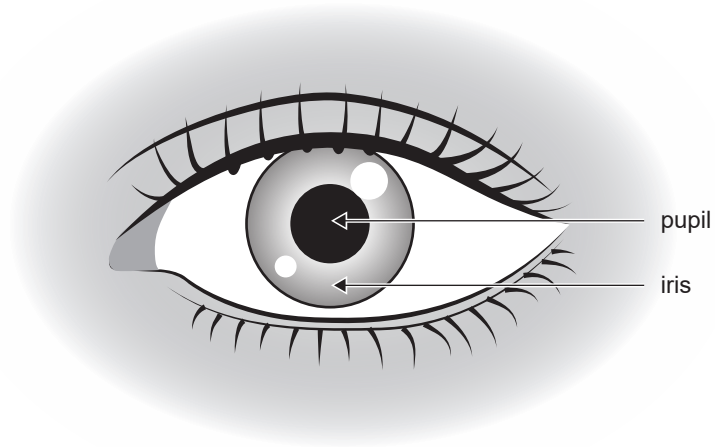
Instructions for Section B

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

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

Question 1 (3 marks)

The diagram below shows a human eye.



Source: adapted from solar22/Shutterstock.com

- a. State **one** function of the pupil. 1 mark

- b. Describe the relationship between the iris and the pupil in vision. 2 marks

DO NOT WRITE IN THIS AREA

Question 2 (3 marks)

Both males and females have reproductive systems that work together for the purpose of sexual reproduction.

List **three** male reproductive organs.

Question 3 (1 mark)

Lymph nodes are found throughout the body.

State **one** main function of lymph nodes.

Question 4 (4 marks)

Complete the table below by inserting the correct area of study.

- the study of the heart
- the study of ageing
- the study of the urinary system
- the study of the female reproductive system
- the study of tissues
- the study of all conditions relating to the ear

Medical term	Area of study
histology	
gerontology	
otology	
gynaecology	

Question 5 (1 mark)

The pineal gland secretes a hormone that promotes sleep.

Name this hormone.

Question 6 (3 marks)

You are an allied health worker and have been rostered to work in the podiatry clinic. You are provided with a checklist to complete to ensure that the treatment room is prepared for procedures such as toenail trimming and wound care.

- a. State the name of the protein that forms nails. 1 mark

- b. Explain the importance of using a checklist when preparing the treatment room. 2 marks

Question 7 (2 marks)

Connective tissue is the most abundant type of tissue found in the human body. Bones, tendons and ligaments are examples of connective tissues.

State **two** functions of connective tissue.

DO NOT WRITE IN THIS AREA

Question 8 (1 mark)

Dora is a receptionist working in a busy audiology clinic. Many patients may present at reception at one time, and sometimes patients can hear Dora speaking to other patients.

Describe **one** way that Dora can maintain patient confidentiality in a busy clinic.

Question 9 (2 marks)

Sweat glands are distributed throughout the skin and are concentrated in areas such as the soles of the feet, groin and underarms.

State **one** benefit of sweating and **one** health risk of excessive sweating.

a. Benefit of sweating 1 mark

b. Health risk of excessive sweating 1 mark

Question 10 (2 marks)

Below is a list of the four lobes of the human brain:

- frontal lobe
- parietal lobe
- occipital lobe
- temporal lobe

Correctly match the lobe to the function stated in the table below.

Lobe of the human brain	Function of lobe
	high level/intellectual cognitive function
	hearing and speech function

Question 11 (3 marks)

Use the following list of positional terms or body cavities to complete the table below.

- abdominal
- epi
- medial
- intra
- thoracic
- lateral

Definition	Positional term or body cavity
space containing the majority of the digestive organs	
above/upon/on	
away from the midline	

Question 12 (2 marks)

Describe the movement of the diaphragm and rib cage during inhalation.

- a. diaphragm 1 mark

- b. rib cage 1 mark

Question 13 (5 marks)

Dylan is a 65-year-old male patient who has presented to ED with complaints of Cx pain. He has a history of CKD and has a permanent IDC. An MRI has been ordered.

What do the five medical abbreviations mentioned above stand for?

a. ED 1 mark

b. Cx 1 mark

c. CKD 1 mark

d. IDC 1 mark

e. MRI 1 mark

Question 14 (4 marks)

Complete the table below by using the following list of medical terms.

- hyperlipidaemia
- splenectomy
- epidermis
- hemicolecotomy
- subdermis
- sternotomy

Medical term	Meaning
	condition of high levels of lipids in the blood
	incision into the sternum
	surgical removal of half the colon
	outermost layer of the skin

Question 15 (3 marks)

Cells in the human body require oxygen for cellular processes. Carbon dioxide is a waste product that must be removed from the body.

- a. Identify **one** system that enables carbon dioxide removal from the body. 1 mark

- b. Describe how the system identified in **part a.** enables carbon dioxide removal. 2 marks

Question 16 (2 marks)

Read the following sentences and select the correct spelling of the medical term from the two spellings in **bold**.

- a. **Glomerulopathy**/**Glomurulopathy** is a disease of a specialised structure in the kidney. 1 mark

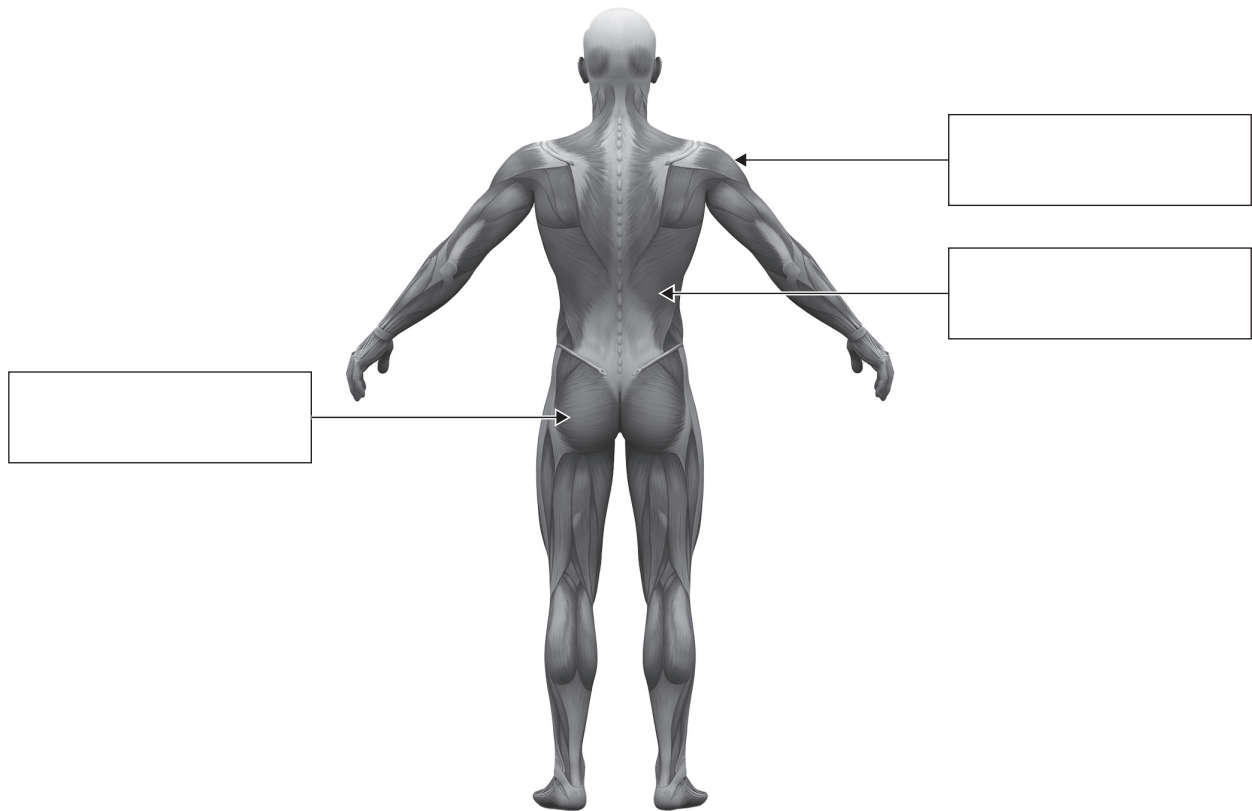
- b. A narrowing of the spinal cord is known as spinal **stenosis**/**stenosos**. 1 mark

Question 17 (3 marks)

The diagram below shows a posterior view of the muscles of the human body.

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

- deltoid
- hamstrings
- abdominals
- gluteus maximus
- trapezium
- latissimus dorsi



Source: newart-graphics/Shutterstock.com

DO NOT WRITE IN THIS AREA

Question 18 (4 marks)

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

Medical term	Word Part				Definition of medical term
	Prefix	Root word	Combining vowel	Suffix	
mammogram					
endotracheal					

Question 19 (2 marks)

Using the words below, complete the table identifying the correct joint part.

- cartilage
- tendon
- joint capsule
- bursa

Joint part	Function
	reduces friction between bones of the joint
	surrounds the joint and connects bones in the joint

DO NOT WRITE IN THIS AREA

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

Eighty-five-year-old Arthur has been admitted to a residential aged care facility following a fall at home 2/7 ago. The health assistant reads the admission notes.

Arthur lives alone and has a past history of a CVA, L) TKR and T2DM.

Arthur reports that he was feeling tired, weak and needing to go to the toilet often. He lost balance in the toilet and fell 2/7 ago, sustaining a R) lower leg laceration. He is now unable to walk independently.

Other recent issues include:

- poor diabetes management
- difficulty walking
- weight loss
- broken glasses.

A doctor has reviewed Arthur and ordered a urine test, blood tests, medication review and referrals to:

- wound care clinic
- PT
- OT
- optometrist
- dietician
- pharmacist
- diabetes educator.

Question 1 (4 marks)

Complete the list below by stating the full medical term for each abbreviation.

a. TKR 1 mark

b. T2DM 1 mark

c. PT 1 mark

d. 2/7 1 mark

**SECTION C – continued
TURN OVER**

Question 2 (3 marks)

Arthur is receiving treatment at the wound clinic. He has poor circulation and reduced sensation as a result of poor diabetes management.

- a. Other than the circulatory system, identify **one** body system that is involved in wound healing. 1 mark

- b. Describe the role of the circulatory system in promoting healing of his wound. 2 marks

Question 3 (1 mark)

State **one** way that Arthur can improve the health of his circulatory system.

Question 4 (3 marks)

Arthur’s balance has been impacted by joint issues and poor vision as a result of being unable to wear his glasses.

Explain the relationship between the musculoskeletal system and the nervous system in maintaining balance.

DO NOT WRITE IN THIS AREA

Use the following information to answer Questions 5–12.

Case study 2

Deborah has contacted her local clinic as she is concerned about her 18-month-old son Noah. He has been reluctant to eat or drink over the past 48 hours. Deborah reports the following signs and symptoms:

- vomited once in the past 24 hours
- fever
- diarrhoea, no blood in stools
- only 2 wet nappies over last 24 hours (normally 4–5)
- lethargic and disengaged

Noah likely has viral gastroenteritis, and Deborah is provided with the following advice:

- monitor fluid intake and output over the next 24–48 hours
- maintain hydration
- continue breastfeeding
- seek medical advice if condition worsens; for example, vomiting blood

Question 5 (4 marks)

Complete the table below by providing the definition or medical term from the case study:

Medical term	Definition
gastr/o	
	<i>inflammation</i>
-rrhoea	
	<i>vomiting blood</i>

Question 6 (2 marks)

Other than wearing gloves, outline **two** strategies that Deborah can implement to minimise the spread of infection to her other children.

Question 7 (3 marks)

Deborah is required to take note of Noah’s fluid balance and hydration.

- a. List **one** example of fluid intake and fluid output in the table below. 2 marks

Fluid intake	Fluid output

- b. State **one** reason why maintaining fluid levels within the body is important. 1 mark

Question 8 (3 marks)

Explain the relationship between the digestive and urinary systems in maintaining fluid balance.

Question 9 (2 marks)

Gastroenteritis is a viral infection.

Describe the response of Noah’s third line of defence in removing the virus.

DO NOT WRITE IN THIS AREA

Question 10 (1 mark)

Noah's appetite has not returned. He is referred to a dietician. Deborah is having difficulty understanding the dietician's verbal advice and medical terms.

State **one** action that the dietician can implement to improve Deborah's understanding.

Question 11 (2 marks)

State **one** role of the stomach and the small intestine in the digestive system.

a. Stomach: 1 mark

b. Small intestine: 1 mark

Question 12 (2 marks)

State **two** ways Deborah can assist Noah to maintain a healthy digestive system.
