

**Victorian Certificate of Education
2020**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER Letter

VCE VET HEALTH
Written examination

Monday 30 November 2020

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

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	20	20	20
B	14	14	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 19 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

Which one of the following is the simplest level of organisation in the human body?

- A. system
- B. tissue
- C. organ
- D. cell

Question 2

‘Gastr/o’, which means ‘stomach’, is referred to as a

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

Question 3

A tendon is found within the musculoskeletal system.

A tendon attaches

- A. muscle to muscle.
- B. organs to organs.
- C. muscle to bone.
- D. bone to bone.

Question 4

Where is the tibia located in relation to the femur?

- A. proximal
- B. distal
- C. lateral
- D. medial

Question 5

Which root word means 'head'?

- A. cephal/
- B. gingiv/
- C. crani/
- D. haem/

Question 6

Cardiac tissue can be found in the

- A. muscles.
- B. bones.
- C. heart.
- D. skin.

Question 7

A patella is an example of which type of bone?

- A. sesamoid bone
- B. irregular bone
- C. short bone
- D. long bone

Question 8

Which one of the following is the largest part of the brain?

- A. hypothalamus
- B. cerebellum
- C. brain stem
- D. cerebrum

Question 9

Sam is an average, healthy, seven-year-old boy.

The regulation of Sam's growth in height is achieved largely by the action of hormones released by the

- A. adrenal glands.
- B. pituitary gland.
- C. pancreas.
- D. testicles.

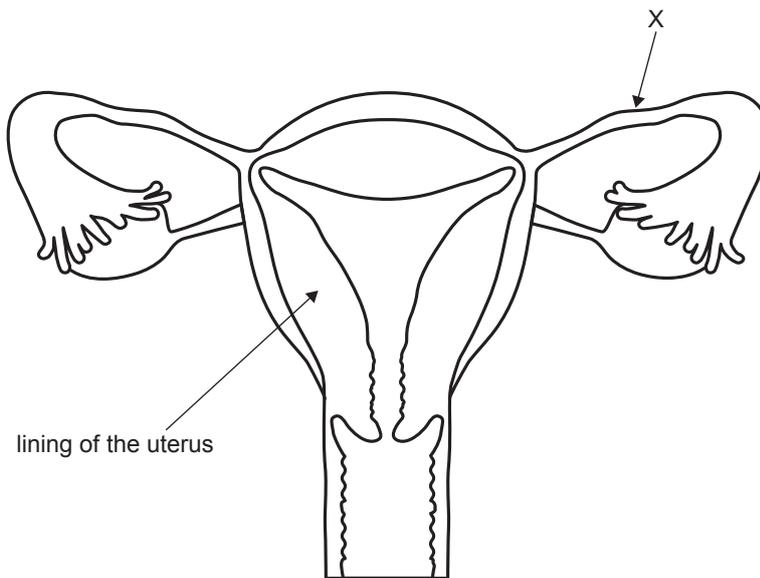
Question 10

Which one of the following is an example of a hinge joint in the human body?

- A. shoulder
- B. wrist
- C. neck
- D. knee

Use the following information to answer Questions 11 and 12.

The diagram below shows the female reproductive system.



Source: Fancy Tapis/Shutterstock.com

Question 11

In the diagram above, the structure labelled 'X' is where

- A. sperm is deposited during intercourse.
- B. fertilisation is most likely to occur.
- C. implantation normally occurs.
- D. ova are produced.

Question 12

Which term refers to the lining of the uterus?

- A. corpus luteum
- B. myometrium
- C. endometrium
- D. cervix

Question 13

Which chamber of the heart receives oxygenated blood from the lungs?

- A. right ventricle
- B. left ventricle
- C. right atrium
- D. left atrium

Question 14

Which prefix means 'painful'?

- A. dys-
- B. anti-
- C. contra-
- D. derm-

Question 15

Which one of the following is the hormone responsible for male sexual characteristics?

- A. follicle-stimulating hormone
- B. luteinising hormone
- C. glucocorticoid
- D. testosterone

Question 16

The release of urine from the bladder is controlled by the urinary system and two other systems.

What are the two other systems?

- A. reproductive and endocrine systems
- B. reproductive and nervous systems
- C. endocrine and muscular systems
- D. muscular and nervous systems

Question 17

The primary function of the thymus gland in the immune response is to

- A. help transport lymph throughout the body.
- B. produce T-cell lymphocytes.
- C. produce blood.
- D. store blood.

Question 18

The pigment in the skin that provides protection from ultraviolet (UV) rays is called

- A. melanin.
- B. sebum.
- C. keratin.
- D. lymph.

Question 19

Where are the receptors for balance located in the human ear?

- A. ciliary body
- B. cerebellum
- C. inner ear
- D. cochlea

Question 20

Martine got her right ear pierced. Ten days later, her ear is showing signs of an inflammatory response.

Which body system is **not** involved in this inflammatory response?

- A. cardiovascular
- B. lymphatic
- C. endocrine
- D. urinary

SECTION B

Instructions for Section B

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

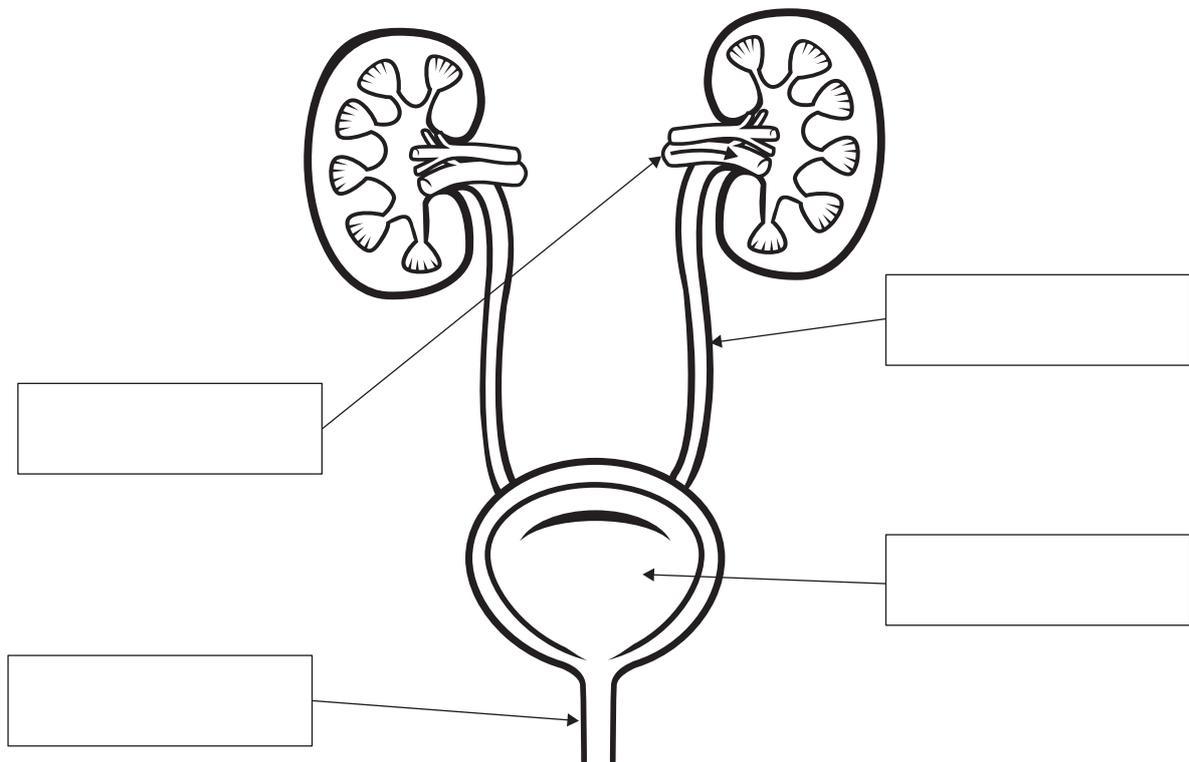
Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.

Question 1 (4 marks)

The diagram below shows the urinary system.

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

- bladder
- ureter
- urethra
- renal artery



Source: Maryna Maiboroda/Shutterstock.com

Question 2 (2 marks)

Describe the difference between systemic circulation and pulmonary circulation.

Question 3 (3 marks)

Complete the medical terms in the table below. The first medical term has been completed as an example.

Meaning	Medical term
inflammation of the tonsils	tonsil/ <i>itis</i>
surgical removal of a breast	mast/
dilation of the bronchus	bronchi/
instrument for recording electrical activity of the heart	cardio/

Question 4 (2 marks)

Keanu, a 22-year-old male, lives with two friends. They eat takeaway three times a week and drink alcohol on the weekends. At his last check-up, Keanu was categorised as overweight, with slightly high blood pressure for someone of his age.

Describe **one** way in which Keanu can help manage his blood pressure without the use of medication.

Question 5 (6 marks)

Community visits are part of an allied health assistant’s role. The handover list below shows key client information.

Handover list

Name	DOB	Time of visit	Health history	Special instructions
CK	13/02/1939	1030	fractured R) NOF 2/52, ambulant with frame, assist with ROM PMHx O/A	<ul style="list-style-type: none"> • wait for physio before attempting exercises • prompt to take pain medication
MP	22/11/1965	0800	R) CVA, L) hemiplegia, ambulant with wheelchair, full assistance with ADLs	<ul style="list-style-type: none"> • assist care staff with dressing aids • wear PPE
LW	10/07/1990	1330	asthma, SOB on exertion, O ₂ therapy, self-care, social visit PMHx schizophrenia	<ul style="list-style-type: none"> • call social worker on arrival

a. Which client will the allied health assistant visit last? 1 mark

b. Provide the full medical term for each abbreviation from the handover list. 5 marks

R) NOF _____

O/A _____

ROM _____

ADLs _____

PPE _____

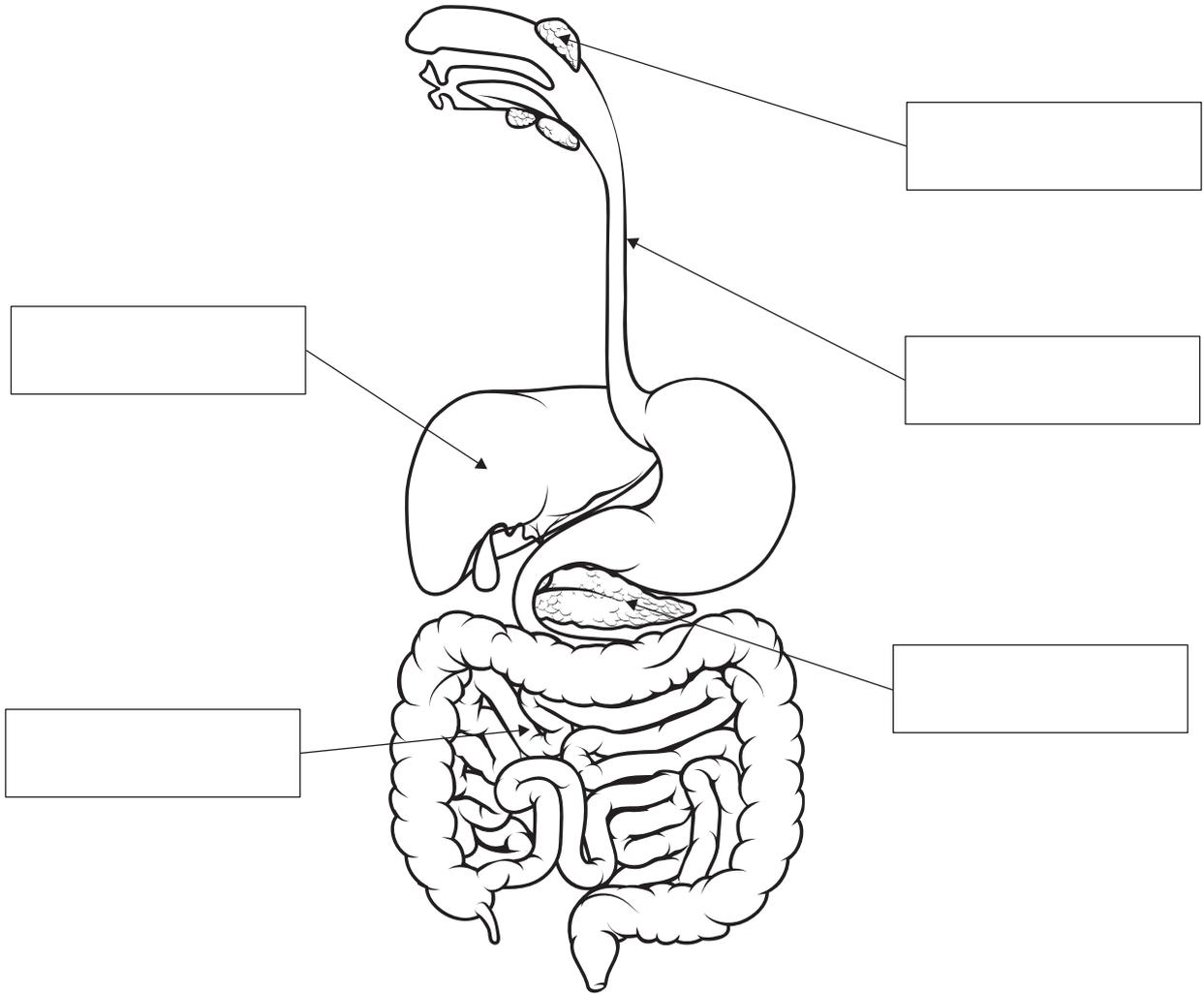
Question 6 (2 marks)

Describe the primary function of lymph fluid.

Question 7 (5 marks)

The diagram below shows the digestive system.

In each box provided, state the name of the part indicated.



Source: Christos Georghiou/Shutterstock.com

DO NOT WRITE IN THIS AREA

Question 8 (4 marks)

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

- anoxia
- cilia
- bronchus
- apnoea
- alveoli
- epiglottis
- adenoids

Explanation	Medical term
a flap of cartilage that prevents food from entering the larynx	
clusters of air sacs located at the end of bronchioles	
the absence of oxygen in the blood	
tiny hairs in the mucous membranes lining the respiratory tract	

Question 9 (4 marks)

a. Name the two main layers of the skin. 2 marks

1. _____

2. _____

b. Identify one type of tissue that lies under the two main layers of the skin and describe the function of this tissue. 2 marks

Type of tissue _____

Description of function _____

DO NOT WRITE IN THIS AREA

Question 10 (2 marks)

An important function of the musculoskeletal system is thermoregulation.

Describe how the musculoskeletal system helps to maintain body temperature when someone is cold.

Question 11 (2 marks)

The stomach is an organ found within the digestive system. It contains different types of tissues.

Select two of the following types of tissues and, for each type of tissue, state its role in the digestive system:

- connective tissue
- epithelial tissue
- muscle tissue
- nervous tissue

Type of tissue	Role in the digestive system

Question 12 (4 marks)

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

- aqueous humour
- cochlea
- pupil
- tympanic membrane

Function	Body part
maintaining intraocular pressure	
hearing	
transmitting sound to the middle ear	
allowing light to enter the eye	

Question 13 (2 marks)

Read each of the following sentences carefully and circle the correct word in **bold type**.

The **malleus** / **malleolus**, incus and stapes are bones in the middle ear.

On **aural** / **oral** examination, the tongue showed signs of inflammation.

Question 14 (8 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	
urology				
prostatectomy				
thyromegaly				
tachycardia				

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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 1–8.

Case study 1

Alex is an allied health assistant who is working in a radiology clinic. Her client is Max, a 40-year-old man with Parkinson's disease.

Max has been admitted to the radiology clinic for an MRI scan following two falls and an overall deterioration in his condition.

Max has the following health issues:

- resting tremor
- loss of speech volume
- diplopia
- unstable BP, including hypotension
- bradykinesia
- loss of sense of smell
- depression and confusion
- constipation
- shuffling gait

A multidisciplinary team, including a neurologist, physiotherapist, osteopath and psychologist, is managing Max.

Max requires assistance with most ADLs and his treatment includes medication, a regular exercise program and counselling.

Alex reads Max's patient notes before attending to him for the first time.

Question 1 (3 marks)

- a. Max is experiencing both motor and non-motor symptoms.

What do 'motor' and 'non-motor' mean?

2 marks

- b. What should Alex do if she does not understand the terminology in Max's patient notes?

1 mark

Question 2 (3 marks)

Provide the meaning of each of the following medical terms.

Medical term	Meaning
bradykinesia	
diplopia	
gait	

Question 3 (2 marks)

Max has hypotension.

Describe what Alex needs to consider when preparing a patient with hypotension for an MRI scan.

Question 4 (2 marks)

Describe two benefits of a regular exercise program to support some of Max’s identified health issues.

1. _____

2. _____

Question 5 (2 marks)

Outline how Parkinson’s disease may affect Max’s digestive system.

Question 6 (2 marks)

Identify two strategies, other than a regular exercise program, that could improve Max’s digestive health.

1. _____

2. _____

DO NOT WRITE IN THIS AREA

Question 7 (2 marks)

Max has lost his sense of smell.

- a. Name the special cells that detect odours. 1 mark

- b. Name the root word for 'nose'. 1 mark

Question 8 (1 mark)

Where would Alex find information about the work that occurs in the radiology department?

DO NOT WRITE IN THIS AREA

Use the following information to answer Questions 9–12.

Case study 2

Zara is a 42-year-old female patient with a PMHx of anaemia. She has recently had a fall and fractured her R) arm, resulting in POP for 6/52. Zara was referred to a rehabilitation clinic to see an OT and dietitian for treatment. Her clinical notes contain the following information:

- O/E Zara c/o fatigue and SOB when going up the stairs in her home.
- Zara finds it difficult to be social with her friends because she is too tired by night-time.
- She does not take any vitamins or supplements and she is a non-smoker.
- Blood test results show her RBC count is extremely low, which indicates she has anaemia. (The main causes of anaemia are nutritional and iron deficiencies.)
- Zara works as a receptionist and due to POP on R) arm she will require equipment to continue working.

OT Rx for Zara

- equipment for return to work
- home visit for stair management

Dietitian Rx for Zara

- dietary changes
- iron supplements
- increase water intake

Question 9 (5 marks)

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

Abbreviation	Full medical term
6/52	
OT	
POP	
RBC	
SOB	

Question 10 (2 marks)

Outline **two** ways in which the OT and dietitian can maintain patient confidentiality.

Question 11 (5 marks)

- a. For each of the body systems listed in the table below, specify one issue in the case study that affects this body system. 2 marks

Body system affected	Issue in case study
skeletal	
circulatory	

- b. Explain the relationship between the skeletal system and the circulatory system. 3 marks

Question 12 (1 mark)

Other than by talking to Zara, state **one** way in which the dietitian can provide Zara with information about maintaining a healthy body.
