



# **Victorian Certificate of Education**

## **2018**

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

**STUDENT NUMBER**

Letter

# VCE VET HEALTH

## Written examination

Thursday 15 November 2018

**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	11	11	50
C	8	8	30
		Total 100	



#### **Materials supplied**

- Question and answer book of 17 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 considered the ‘control centre’ of a cell?

- A. nucleus
- B. centriole
- C. ribosome
- D. mitochondrion

### Question 2

Which substance is stored and concentrated by the gall bladder for later use?

- A. bile
- B. pepsin
- C. glycogen
- D. hydrochloric acid

### Question 3

Which one of the following terms describes the location of the kidneys?

- A. adrenal
- B. suprarenal
- C. intraperitoneal
- D. retroperitoneal

### Question 4

Which one of the following statements about water and electrolyte regulation is correct?

- A. Salt actively follows water.
- B. Salt passively follows water.
- C. Water actively follows salt.
- D. Water passively follows salt.

### Question 5

Which one of the following structures is located external to the sclera of the eye?

- A. lens
- B. retina
- C. choroid
- D. conjunctiva

**Question 6**

Which one of the following terms refers to enlargement of the liver?

- A. hepatomalacia
- B. hepatomegaly
- C. hepatoma
- D. hepatitis

**Question 7**

The movement of air into and out of the lungs is called

- A. exhalation.
- B. inspiration.
- C. respiration.
- D. ventilation.

**Question 8**

The vessels that carry oxygen to the myocardium are called

- A. coronary veins.
- B. pulmonary veins.
- C. coronary arteries.
- D. pulmonary arteries.

**Question 9**

Which of the following specialised cells engulf and ingest foreign particles?

- A. B cells
- B. antigens
- C. phagocytes
- D. memory T cells

**Question 10**

The peripheral nervous system can be broken down into which of the following subdivisions?

- A. autonomic and somatic nervous systems
- B. autonomic and sympathetic nervous systems
- C. parasympathetic and somatic nervous systems
- D. sympathetic and parasympathetic nervous systems

**Question 11**

What does the suffix -sclerosis refer to?

- A. to break down
- B. reconstruction
- C. condition of softening
- D. condition of hardening

**Question 12**

Which medical term refers to the condition of being without menstrual flow (menstruation)?

- A. amenorrhoea
- B. dysmenorrhoea
- C. oligomenorrhoea
- D. hypomenorrhoea

**Question 13**

In the word ‘polycythaemia’, ‘cy’ is the

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

**Question 14**

Which gland regulates metabolism and energy use?

- A. pineal
- B. thyroid
- C. adrenal
- D. parathyroid

**Question 15**

An incision into a bone is called an

- A. osteotome.
- B. osteotomy.
- C. ostectomy.
- D. osteoblast.

**Question 16**

Which one of the following terms refers to ‘pertaining to the head’?

- A. cardiac
- B. cephalic
- C. cerebral
- D. encephalic

**Question 17**

The shoulder is an example of a

- A. fibrous joint.
- B. hyaline joint.
- C. synovial joint.
- D. cartilaginous joint.

**Question 18**

The pancreas plays an active role in which two body systems?

- A. endocrine and nervous systems
- B. digestive and endocrine systems
- C. lymphatic and muscular systems
- D. cardiovascular and digestive systems

**Question 19**

Which combining form means ‘testicle’?

- A. orchid/o
- B. perine/o
- C. spermat/o
- D. epididym/o

**Question 20**

Ringing in the ear is called

- A. otalgia.
- B. vertigo.
- C. tinnitus.
- D. otorrhoea.

**SECTION B****Instructions for Section B**

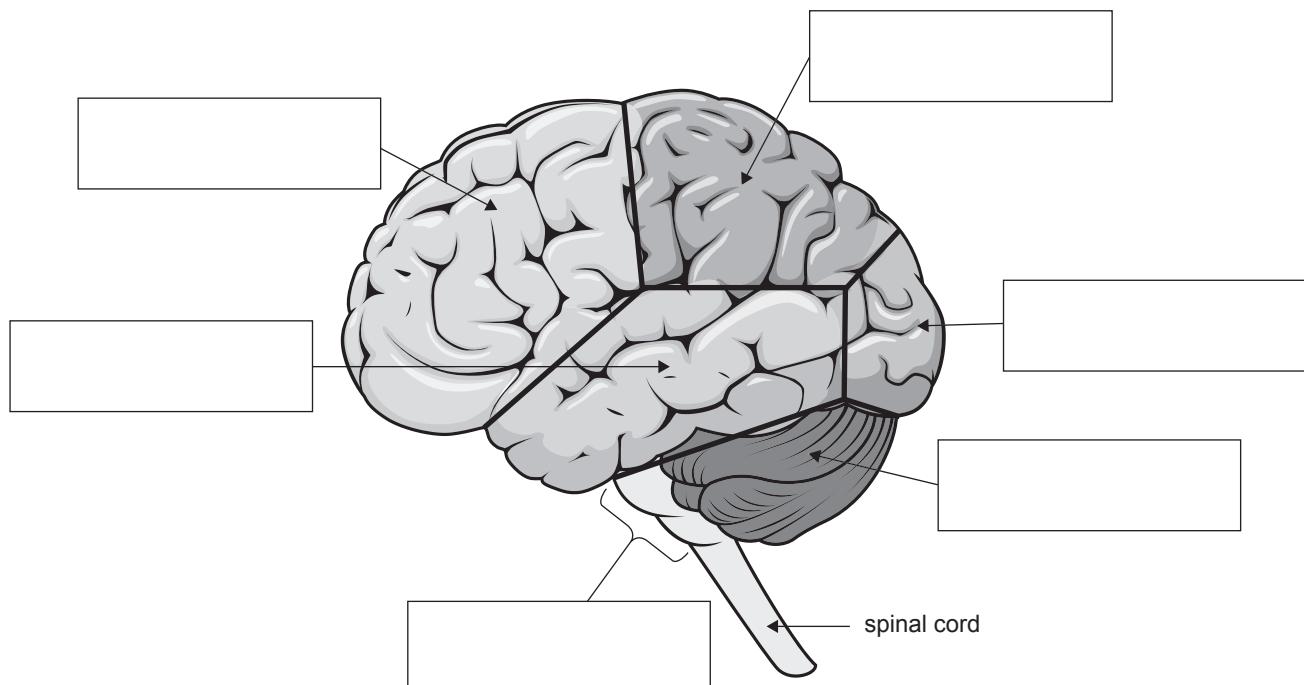
Answer **all** questions in the spaces provided.

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

**Question 1 (3 marks)**

The diagram below shows the human brain.

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



Source: Alexander\_P/Shutterstock.com

**Question 2 (2 marks)**

Describe **one** process that aids the flow of lymph in the lymphatic vessels.

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**Question 3 (3 marks)**

Describe the relationship between the cerebellum and the muscular system.

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**Question 4 (4 marks)**

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

<b>Medical term</b>	<b>Word part</b>				<b>Definition of medical term</b>
	<b>Prefix</b>	<b>Root</b>	<b>Combining vowel</b>	<b>Suffix</b>	
dermatology					
sigmoidoscopy					
pericarditis					
polyuria					

**Question 5 (6 marks)**

Describe the three major processes below that are involved in urine formation.

Filtration \_\_\_\_\_

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Reabsorption \_\_\_\_\_

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Secretion \_\_\_\_\_

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**Question 6 (6 marks)**

Outline two functions of blood and explain the relationship of each function to other systems of the body.

Function	Relationship

**Question 7 (6 marks)**

Sarah, a 19-year-old netball player, tore the anterior cruciate ligament in her right knee during a game and requires a reconstruction. Unfortunately, the surgeon is unavailable to operate for two months.

- a. Select one of the following body systems:

- muscular
- respiratory
- cardiovascular

Body system \_\_\_\_\_

Explain the effect of immobility on the body system selected.

3 marks

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- b. Describe the structural and functional differences between ligaments and tendons.

3 marks

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**Question 8 (7 marks)**

Read the following medical report.

Mr Baldacci, a 68-year-old male, presented to the ED with severe abdominal pain and vomiting. He has not opened his bowels for 5/7. He has a PMHx of bowel cancer that was surgically removed, prostatectomy, hypothyroidism and dermatitis. His TPR is 37.8 °C, 80 bpm, 25 pm and BP – 150/90 mmHg. The Dr ordered him to be admitted to hospital for a colonoscopy, which showed a small bowel obstruction. He has been in hospital for 5 days undergoing Rx and is scheduled for D/C tomorrow. He has an OPD appointment for 6/52.

Complete the table below by providing the definition of, or the full medical term for, each word/abbreviation listed.

<b>Word/Abbreviation</b>	<b>Definition/Full medical term</b>
ED	
5/7	
PMHx	
prostatectomy	
hypothyroidism	
dermatitis	
TPR	
BP	
Dr	
colonoscopy	
Rx	
D/C	
OPD	
6/52	

**Question 9 (5 marks)**

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

Medical term	Singular form	Plural form
bacterium		
ova		
sinus		
vertebrae		
bronchi		

**Question 10 (2 marks)**

In the table below, list the structures that make up the upper and lower respiratory tracts.

Upper respiratory tract	Lower respiratory tract
•	•
•	•
•	•
•	•
	•

**Question 11 (6 marks)**

Use the following list to complete the table below with the correct medical term for each explanation given:

- |               |                  |                 |                |
|---------------|------------------|-----------------|----------------|
| • peristalsis | • hypernatraemia | • anaemia       | • oliguria     |
| • epigastric  | • posterior      | • hyperkalaemia | • distal       |
| • enuresis    | • polycythaemia  | • thoracic      | • segmentation |

Explanation	Medical term
excessive concentration of potassium in the blood	
the cavity that contains the heart and the lungs	
the condition that results from lack of iron in erythrocytes	
the rhythmic contraction and relaxation of the smooth muscle that lines the walls of the digestive organs	
low production of urine	
how the heart is positioned in relation to the sternum	

## 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

Mark Stevens, a 53-year-old executive director at a large financial institution, was discharged home following a 2/12 stay in hospital and inpatient rehabilitation post L) CVA. Mark has residual hemiplegia on the contralateral side and dysphasia from the CVA.

Mark has a PMHx of HT. He smokes 25 cigarettes a day and is overweight. Leading up to the stroke, Mark was under enormous stress at work, negotiating a large corporate contract. Due to his long working hours he did not eat regular healthy meals, resorted to fast foods and had no time for exercise.

Mark's wife has returned to work to sustain the family income and this leaves Mark at home during the day. He has become socially isolated, withdrawing from all his social networks.

Mark attends community rehabilitation one day per week and has been given an exercise program to implement at home BD, but he is non-compliant and would rather just sit and watch television.

#### Question 1 (4 marks)

The abbreviations listed in the table below can be found in Case study 1.

Provide the full medical term for each abbreviation.

Abbreviation	Full medical term
2/12	
L) CVA	
HT	
BD	

**Question 2 (3 marks)**

Break down each medical term listed in the table below into its basic word parts and provide the definition of each term.

<b>Medical term</b>	<b>Word part</b>			<b>Definition of medical term</b>
	<b>Prefix</b>	<b>Root</b>	<b>Suffix</b>	
hemiplegia				
contralateral				
dysphasia				

**Question 3 (6 marks)**

Explain how an exercise program could support the healthy functioning of Mark's cardiovascular, muscular and integumentary systems.

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**Question 4 (6 marks)**

For each lifestyle factor listed in the table below, suggest one intervention to maintain Mark's blood pressure at a healthy range and one resource he could use to support himself.

Lifestyle factor	Intervention	Resource
smoking		
overweight		
stress		

*Use the following information to answer Questions 5–8.*

**Case study 2**

Nasira Abboud, a 42-year-old female accountant, has been experiencing a sore throat, runny nose, headaches, nausea and cough for the past three days. She continues to go to work as it is the end of the financial year, which is a very busy time at the accounting firm. She is in an open-plan office with five other people.

**Question 5 (3 marks)**

Outline the body's three lines of defence in minimising the risk of infection.

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**Question 6 (3 marks)**

Describe how the other five people in the open-plan office could reduce their risk of exposure to Nasira's symptoms.

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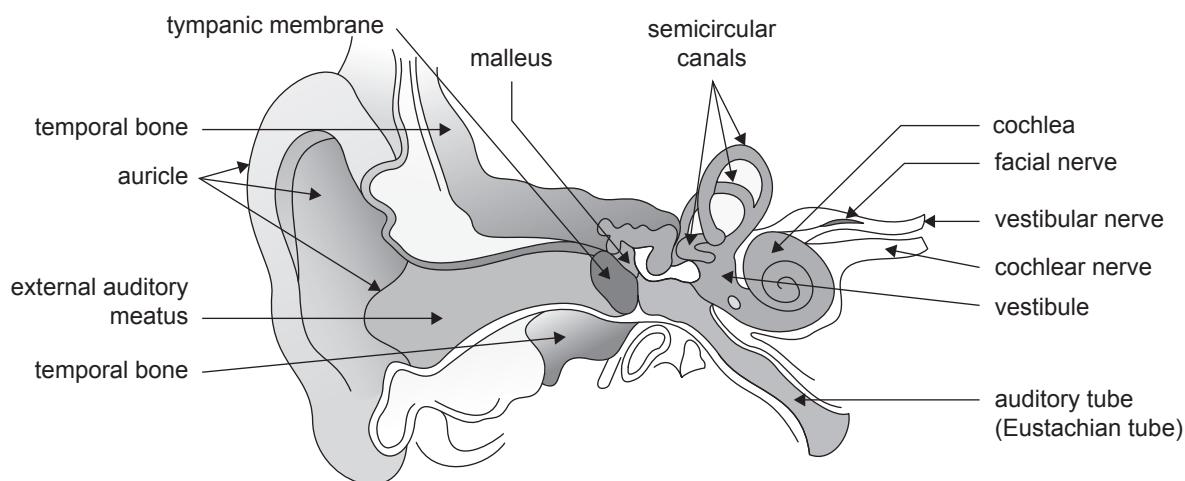
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**Question 7 (1 mark)**

Nasira presents to her local general practitioner (GP), who tells her that she is experiencing the symptoms of the common cold and an inner ear infection that is causing the dizziness and disequilibrium problems. The GP prescribes an antibiotic, and tells Nasira to rest, stay hydrated and take two days off work.



Source: Alejo Miranda/Shutterstock.com

Referring to the diagram of the ear above, identify and list the three structures that are related to equilibrium and balance.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Question 8 (4 marks)**

Nasira presents to her local GP two weeks later stating that the dizziness and balance problems have gone, but she has a persistent cough. The GP orders a chest X-ray, which shows a small lesion in the lower lobe of her right lung. The GP orders a bronchoscopy.

Today, Nasira returns to see the GP for her bronchoscopy results. The results have not arrived. A staff member rings the day procedure centre, gets the results over the phone and writes the following report.

*Ms Abboud has a lesion on the right posterior lower lobe of the lung that measures approximately 1.5 cm in diameter and has the characteristics of carsenoma. The patient has no history or physical findings of systemic spread. A brush byopsee was conducted. Visual inspection of the pharinks, larynx, truckia and bronchi were clear.*

Provide the correct spelling for each incorrectly spelt medical word in the table below.

Incorrectly spelt medical word	Correctly spelt medical word
carsenoma	
byopsee	
pharinks	
truckia	