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Write your **student number** in the boxes above.

Letter

VET Health

Question and Answer Book

VCE Examination – Monday 18 November 2024

- Reading time is **15 minutes**: 9.00 am to 9.15 am
- Writing time is **1 hour 30 minutes**: 9.15 am to 10.45 am

Materials supplied

- Question and Answer Book of 20 pages
- Multiple-Choice Answer Sheet

Instructions

- Follow the instructions on your Multiple-Choice Answer Sheet.
- At the end of the examination, place your Multiple-Choice Answer Sheet inside the front cover of this book.

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

Contents	pages
Section A (20 questions, 20 marks) _____	2–5
Section B (17 questions, 50 marks) _____	6–13
Section C (11 questions, 30 marks) _____	14–19

Section A – Multiple-choice questions

Instructions

- Answer **all** questions in pencil on your Multiple-Choice Answer Sheet.
 - 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.
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Question 1

In standard anatomical position, in which position are the thumbs shown in relation to the other digits?

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

Question 2

Which of the following is a type of connective tissue?

- A. adipose
- B. skin
- C. smooth muscle
- D. nervous

Question 3

The plural form of periosteum is

- A. periostea
- B. periosto
- C. periostia
- D. periostou

Question 4

The spleen is best described as

- A. a large organ that filters blood and breaks down poisonous substances such as alcohol.
- B. a small organ that produces enzymes which help digest food.
- C. a large organ that makes the hormone insulin.
- D. a small organ that stores and filters blood.

Question 5

What structure is part of the appendicular skeleton?

- A. vertebral column
- B. cranium
- C. pelvis
- D. rib cage

Question 6

The hormone primarily responsible for promoting hunger is

- A. leptin.
- B. gastrin.
- C. insulin.
- D. ghrelin.

Question 7

The medical abbreviation URTI stands for

- A. upper respiratory tract infection.
- B. upper reproductive tract infection.
- C. urinary renal tract infection.
- D. urinary reproductive tract infection.

Question 8

Medical terms mostly consist of three parts.

What does the 'root' part often refer to?

- A. the size
- B. the body part
- C. the direction
- D. the disease

Question 9

Schwann cells are found in the

- A. brain.
- B. peripheral nerves.
- C. nephrons.
- D. pancreas.

Question 10

Walls of the blood vessels and hollow organs are made up of

- A. cardiac muscles.
- B. skeletal muscles.
- C. smooth muscles.
- D. striated muscles.

Question 11

Which one of the following is correct?

	Immune system component	Line of defence
A.	antibody	second line of defence
B.	phagocyte	first line of defence
C.	inflammatory response	second line of defence
D.	mucous membranes	third line of defence

Question 12

Coccydynia refers to the

- A.** condition of pain in the coccyx.
- B.** absence of the coccyx.
- C.** surgical fusion of the coccyx.
- D.** abnormal development of the coccyx.

Question 13

The combining form 'bar/o' means, or is used to refer to,

- A.** slow.
- B.** blood.
- C.** bacteria.
- D.** pressure.

Question 14

From which endocrine gland is the steroid hormone cortisol released?

- A.** pituitary
- B.** adrenal
- C.** pancreas
- D.** parathyroid

Question 15

Which of the following statements, related to pulmonary circulation, is correct?

- A.** The pulmonary artery carries deoxygenated blood from the lungs to the heart.
- B.** The pulmonary vein carries oxygenated blood from the lungs to the heart.
- C.** The pulmonary artery carries oxygenated blood from the heart to the lungs.
- D.** The pulmonary vein carries deoxygenated blood from the heart to the lungs.

Question 16

Identify the correct spelling:

- A. sleep aponea
- B. sleep epnoea
- C. sleep apnoea
- D. sleep epnea

Question 17

The function of the eustachian tube is to

- A. equalise pressure between the middle ear and the external atmosphere.
- B. transmit sound waves from the outer ear to the middle ear.
- C. amplify sound waves before transmitting to the inner ear.
- D. convert sound waves to electrical impulses for the brain to interpret.

Question 18

What is the plural of larynx?

- A. larynges
- B. laryngea
- C. larynxi
- D. larynxae

Question 19

Which term describes the position of the liver in relation to the diaphragm?

- A. superior
- B. inferior
- C. posterior
- D. lateral

Question 20

Which one of the following shows the physiological characteristics of muscles?

- A. excitability, contractility, rigidity
- B. contractility, elasticity, spasticity
- C. rigidity, excitability, elasticity
- D. elasticity, excitability, contractility

Section B

Instructions

- Answer **all** questions in the spaces provided.
- Write your responses in English.
- Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.

Question 1 (4 marks)

Complete the table below by identifying the combining form and body system for the following organs.

Organ	Combining form	Body system
spleen		
bladder		

Question 2 (2 marks)

Name **one** component of blood, and state its function.

Question 3 (2 marks)

Outline the difference between the autonomic and somatic nervous systems.

Question 4 (2 marks)

Complete the table below for components of the digestive system.

Structure	Function
gall bladder	
	opening through which faeces are evacuated from the body

Question 5 (5 marks)

Jessica has an appointment with her OT for hand therapy 2/52 post # distal phalanx on her R) index finger.

a. Complete the table below by inserting the correct medical terms.

2 marks

Abbreviation	Meaning
#	
OT	

b. Circle the correct joint type involved in Jessica’s injury.

1 mark

hinge condyloid ball and socket

c. Name and describe **one** movement that occurs at the identified joint type.

2 marks

Do not write in this area.

Question 6 (2 marks)

Read the following sentences and circle the correct spelling of the medical term from the two options in bold.

a. **Osteopinia / Osteopenia** is a precursor to osteoporosis. 1 mark

b. There are multiple organs that make up the digestive system. One of these is the **oesophagus / oesophogus**. 1 mark

Question 7 (2 marks)

State one similarity and one difference between the cardiovascular and lymphatic systems.

a. similarity 1 mark

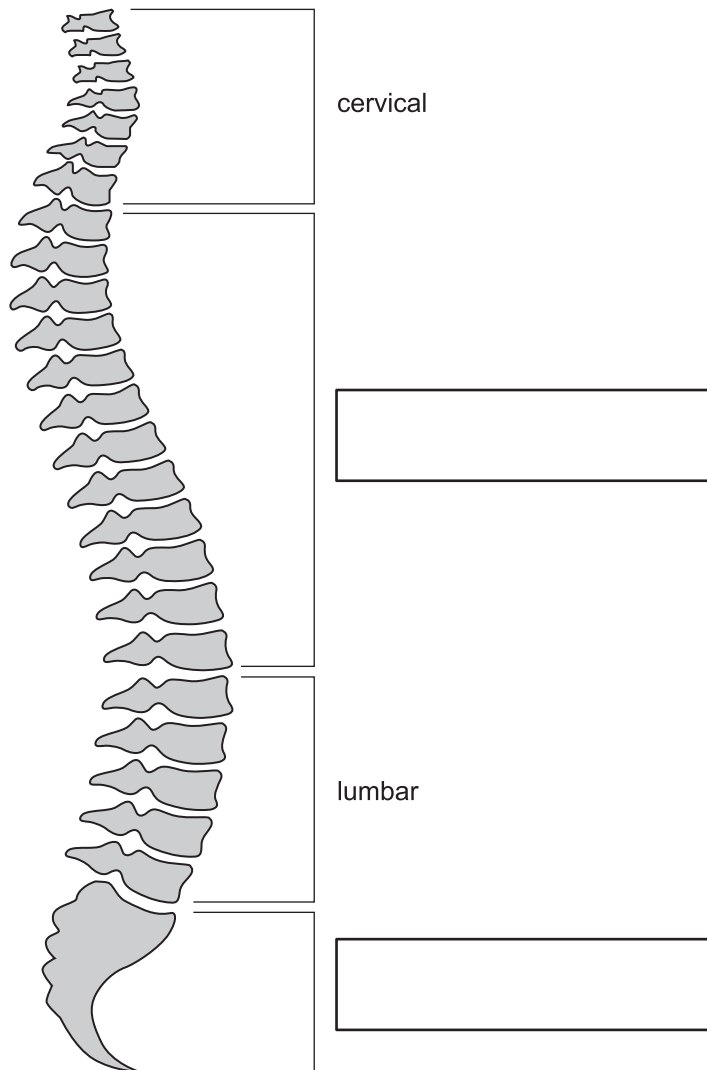
b. difference 1 mark

Question 8 (3 marks)

The diagram below represents the spinal column.

a. Label the missing sections of the spinal column on the diagram below.

2 marks



Source: Adapted from Arcady/Shutterstock.com

b. State **one** function of the spinal column.

1 mark

Do not write in this area.

Question 9 (3 marks)

Arjun is an allied health worker who is helping with the morning breakfast club on a rehabilitation ward.

Prior to preparing the area for food service, Arjun is required to wash and sanitise his hands to reduce the risk of spread of infection.

- a. State **one** other strategy that Arjun could use to minimise the risk of spreading infection. 1 mark

- b. Describe **one** way the digestive system provides protection against food-borne illness. 2 marks

Question 10 (2 marks)

State the special sense and key sensory organ for each medical term in the table below.

An example has been provided.

Medical term	Special sense	Sensory organ
vision	sight	eye
olfaction		
gustation		

Question 11 (6 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	
hepatocyte					
paranasal					
angiogenesis					

Question 12 (2 marks)

State **one** function of the following structures in the respiratory system.

Pleura _____

Alveoli _____

Do not write in this area.

Question 13 (3 marks)

The human heart contains multiple valves.

- a. Name the valve between the left atrium and the left ventricle. 1 mark

- b. Describe the function of the valve between the left atrium and the left ventricle. 2 marks

Question 14 (3 marks)

Austin is a 16-year-old male patient who presents to the emergency department with 9/10 L) shoulder pain. The treating doctor makes the following entry in the clinical notes.

HOPC: Injured shoulder in surf

PMHx: Nil

Vital signs: NAD

O/E: Visible deformity to L) shoulder, reduced AROM and PROM in all directions, no P&N reported

Impression: Likely shoulder dislocation. Pt to remain NBM until review X-ray

What do the following medical abbreviations mean?

Abbreviation	Meaning
PROM	
NBM	
P&N	

Question 15 (4 marks)

The urinary system plays a key role in the formation of urine. It involves three stages.

- a. Filtration is the first stage of urine formation.

Name the next **two** stages.

2 marks

- b. Describe the relationship between urine formation and the regulation of pH and electrolyte balance.

2 marks

Question 16 (2 marks)

Apart from the uterus and vagina, name **one** other organ of the female reproductive system and state its function.

Organ _____

Function _____

Question 17 (3 marks)

Complete the table below by providing the correct medical terms using the following list:

- prostatectomy
- vulvectomy
- orchiopexy
- salpingostomy
- scrotologist
- oophoropexy
- urologist
- ileostomy

Medical term	Meaning
	specialist in the study of the male reproductive system
	surgical unblocking or opening of a fallopian tube
	surgical fixation of a testicle

Section C

Instructions

- Answer **all** questions in the spaces provided.
- Write your responses in English.

Use the following information to answer Questions 1–5.

Case Study 1

Bernard is 94 years old and suffers from Alzheimer’s disease. Maria, his wife, is his primary caregiver. Despite his illness, Bernard is reasonably mobile. Recently, his mobility has decreased, he has become lethargic, confused and irritable, and he has required additional support with his ADLs. He has developed a wheezing cough and SOB.

Maria is concerned about his QoL and doesn’t know if she can manage his care. She takes him to hospital. He is triaged in emergency and flagged for urgent medical and multidisciplinary follow-up.

Assessment findings

HR: 124 (normal 60–100 bpm)

RR: 21 (normal 12–19)

BP: 160/95 (normal 90/60–120/80)

SaO₂: 93% (normal >95%)

Temp: 38.1

BMI: underweight

Bernard is diagnosed with acute delirium and bronchitis. He is commenced on IV fluid therapy and antibiotics.

The dietitian recommends 75 mL Sustagen drink bd and 1/52 weighing, and organises a review in one month.

Question 1 (1 mark)

Why is it important to triage patients?

Question 2 (2 marks)

Provide the medical term or abbreviation for the following assessment findings:

Assessment finding	Medical term or abbreviation
Condition of abnormally fast heart rate	
One month	

Question 3 (4 marks)

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

Abbreviation	Full medical term
IV	
bd	
RR	
QoL	

Question 4 (5 marks)

Prior to Bernard's illness he was independently mobile.

- a. State **two** benefits of mobilisation for the respiratory system. 2 marks

- b. Explain the relationship between the respiratory and musculoskeletal systems in mobilisation. 3 marks

Question 5 (2 marks)

Alzheimer's disease affects the nervous system and results in memory loss and changes in behaviour.

- a. Describe **one** function of the central nervous system. 1 mark

- b. The social worker sees Bernard to obtain a social history and commence discharge planning.

Given Bernard's symptoms of Alzheimer's, outline **one** strategy the social worker can use to obtain an accurate social history. 1 mark

Use the following information to answer Questions 6–11.

Case Study 2

Veronica, a registered nurse, is running the pre-admission clinic for her local hospital. The notes below provide the history for her next patient, Lawrence.

Name: Lawrence

DOB: 4/2/1961

UR: 847365

Provisional diagnosis: Melanoma

Brief history and examination: Multiple 'sun spots' under annual monitoring from dermatologist. Recent change in appearance to lesion on nose. Bx confirmed melanoma. For urgent removal and skin graft 1/52.

For pre-admission work-up prior to anaesthesia:

CXR

FBC

Dietitian referral

PMHx/PSHx: NIDDM, obesity, lower-back pain, discectomy 2006, ex-smoker (quit 5 years ago), HTN

Medications: Lopressor 100 mg PO

SHx: 63 y.o. semi-retired bricklayer – predominantly outdoor maintenance and labour. Transitioning into retirement. Lives in regional Victoria ~250 km north of nearest hospital. Drinks alcohol 4–5 times a week.

Post-operative care

3/7 inpatient admission

d/c home with stitches and waterproof dressing for 10/7

f/u review and regular dressing changes through Hospital in the Home program

Question 6 (2 marks)

Melanoma is a type of skin cancer that can affect multiple layers of the skin, including the dermis.

Identify **two** structures found within the dermis.

Question 7 (4 marks)

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

Abbreviation	Full medical term
PO	
d/c	
NIDDM	
DOB	

Question 8 (2 marks)

Lawrence will require a skin graft to cover the wound post-operatively.

Explain why it is important to replace lost skin.

Question 9 (2 marks)

State **two** ways in which Lawrence can reduce his risk of further melanoma and maintain the health of his integumentary system.

Question 10 (5 marks)

Lawrence is considered high risk for surgery due to multiple conditions, including high blood pressure.

- a. Identify **one** risk factor that may contribute to Lawrence's high blood pressure. 1 mark

- b. Describe the function of anti-diuretic hormone (ADH) in the regulation of blood pressure. 2 marks

- c. Recommend **two** lifestyle changes Lawrence could make to improve his overall health. 2 marks

Question 11 (1 mark)

Veronica is preparing for a home visit for f/u review and dressing change of Lawrence's skin graft.

Outline **one** way in which Veronica can maintain patient confidentiality while conducting the home visit.
