

Trial Examination 2022

VCE Psychology Unit 1

Written Examination

Question and Answer Booklet

Reading time: 15 minutes

Writing time: 1 hour 30 minutes

Student's Name: _____

Teacher's Name: _____

Structure of booklet

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	40	40	40
B	10	10	50
			Total 90

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.

No calculator is allowed in this examination.

Materials supplied

Question and answer booklet of 22 pages

Answer sheet for multiple-choice questions

Additional space is available at the end of the booklet if you need extra paper to complete an answer.

Instructions

Write your **name** and your **teacher's name** in the space provided above on this page, and on the answer sheet for multiple-choice questions.

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 booklet.

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.

Question 1

In the brain versus heart debate, who believed the heart was the source of our thoughts, feelings and behaviours?

- A. Rene Descartes
- B. the ancient Egyptians
- C. Hippocrates
- D. Plato

Question 2

Rene Descartes proposed that humans possess

- A. a physical body, which influences the non-physical mind.
- B. a non-physical mind, which influences the physical body.
- C. a non-physical mind and a physical body, which interact and influence each other through the pineal gland.
- D. a non-physical mind and a physical body, which interact and influence each other through the thalamus.

Question 3

In the nineteenth and twentieth centuries, important experiments were conducted to investigate the structure and function of the human brain. One such procedure involved surgically removing part(s) of the brain and studying the subsequent effects.

What is the name of this procedure?

- A. autopsy
- B. split-brain surgery
- C. electrical brain stimulation
- D. ablation

Question 4

A researcher was interested in determining which parts of the brain were active when people listened to music. As part of her research, she used neuroimaging techniques.

Which one of the following methods is best suited to this purpose?

- A. CT scan
- B. MRI
- C. X-ray
- D. PET scan

Question 5

The peripheral nervous system consists of

- A. the autonomic and somatic nervous systems.
- B. the sympathetic and parasympathetic nervous systems.
- C. the spinal cord and brain.
- D. the somatic and sympathetic nervous systems.

Question 6

Sunni is an excellent sprinter.

When Sunni is sprinting along a track, the motion of Sunni's leg muscles is controlled by the

- A. sympathetic branch of the autonomic nervous system.
- B. autonomic branch of the peripheral nervous system.
- C. parasympathetic branch of the central nervous system.
- D. somatic branch of the peripheral nervous system.

Question 7

June is enjoying a picnic in a botanical garden. An insect lands on June's cheek and she is startled, crying out in fear.

Which one of the following physiological changes would June immediately experience?

- A. constriction of pupils and constriction of bronchi
- B. increased heart rate and increased movement in the small intestine
- C. increased salivation and increased breathing rate
- D. increase in adrenaline and dilation of the airways

Question 8

Which one of the following is the role of myelin in the neuron?

- A. coating the axon
- B. coating the axon terminals
- C. improving the efficiency of electrical transmission within the neuron
- D. improving the efficiency of chemical transmission between neurons

Question 9

The myelin that is found in most neurons within the central nervous system is made by

- A. astroglia.
- B. Schwann cells.
- C. microglia.
- D. oligodendrocytes.

Question 10

Which one of the following structures is located in the midbrain?

- A. reticular formation
- B. cerebellum
- C. thalamus
- D. cerebrum

Question 11

Sensory information is filtered before being transferred to the appropriate area in the brain.

Which one of the following structures filters sensory information?

- A. thalamus
- B. cerebrum
- C. hypothalamus
- D. cerebellum

Use the following information to answer Questions 12–14.

Aaron is walking with friends in the Dandenong Ranges. While on the walking trail, they see many different species of plants and animals.

Question 12

Aaron hears the calls of parrots roosting in the trees above him.

In which lobe of Aaron's brain is the sound of the bird calls processed?

- A. parietal lobe
- B. temporal lobe
- C. occipital lobe
- D. frontal lobe

Question 13

Aaron looks towards the sounds of the parrots, hoping to spot them among the trees. He sees flashes of colour as the birds fly from branch to branch.

In which lobe of Aaron's brain is the sight of the birds processed?

- A. parietal lobe
- B. temporal lobe
- C. occipital lobe
- D. frontal lobe

Question 14

Beside the walking trail, Aarons sees a bush with a beautiful flower.

The message to move his right hand to touch the flower originates from Aaron's

- A. right occipital lobe.
- B. left frontal lobe.
- C. right parietal lobe.
- D. left temporal lobe.

Question 15

Myelination is the process that develops a fatty substance that coats

- A. the axon terminals and occurs most rapidly after birth.
- B. the axon terminals and occurs most rapidly during adulthood.
- C. the axons and occurs most rapidly after birth.
- D. the axons and occurs most rapidly during adulthood.

Question 16

Wenyi had an accident while skiing and consequentially suffered a head injury. After Wenyi's accident, his friends and family noticed he had become moodier and, at times, aggressive. Medical investigation revealed that Wenyi had sustained damage to one of his cortical lobes.

It is most likely that the damage occurred in Wenyi's

- A. parietal lobe.
- B. occipital lobe.
- C. frontal lobe.
- D. temporal lobe.

Use the following information to answer Questions 17 and 18.

Amir worked as an executive for a large business in the city. His job was very demanding and he consistently worked in a high-pressure environment. Although he had been in good general health in the past, Amir was rushed to hospital after suffering from a stroke. As Amir was recovering, his partner Yui noticed a few unusual behaviours, such as Amir shaving only the right side of his face.

Question 17

Amir's behaviour of shaving only the right side of his face since suffering the stroke suggests that he is showing signs of

- A. spatial neglect.
- B. split-brain surgery.
- C. electric stimulation of his brain.
- D. ablation of part of his brain.

Question 18

Based on Amir's behaviour, it is highly probable that the stroke caused damage to his

- A. left parietal lobe.
- B. left temporal lobe.
- C. right parietal lobe.
- D. right temporal lobe.

Question 19

Professor Jones ran an experiment that involved deception. After the experiment was complete, the participants were informed of the deception used.

What process is used when Professor Jones informs the participants?

- A. informed consent
- B. voluntary participation
- C. debriefing
- D. confidentiality

Question 20

From birth to adulthood, the size of the brain grows to four times its initial size.

The growth of the brain is mostly due to an increase in the

- A. number of neurons.
- B. length of the axons of neurons.
- C. number of glial cells.
- D. number of synaptic connections.

Question 21

Ikuko was involved in a car accident and consequentially suffered a head injury. During Ikuko's recovery period, changes occurred in parts of her brain. Undamaged neurons that had lost connections with active neurons were seeking new active neurons with which they could connect.

Which one of the following processes is occurring in this scenario?

- A. reconnecting
- B. rerouting
- C. sprouting
- D. rebranching

Use the following information to answer Questions 22–24.

Genevieve believed that Australian adults who exercised would sleep better at night. She decided to run an experiment to test this idea.

Question 22

Which one of the following is the independent variable in this experiment?

- A. adults
- B. exercise
- C. quality of sleep
- D. quantity of sleep

Question 23

Genevieve created a post online that asked for volunteers to participate in her experiment.

Which sampling method has Genevieve used?

- A. stratified
- B. random
- C. convenience
- D. stratified random

Question 24

To compare the sleep quality of adults who exercised with adults who did not exercise, Genevieve had the participants wear wrist monitors that registered the number of hours they slept per night.

This type of data is

- A. primary and quantitative.
- B. primary and qualitative.
- C. secondary and quantitative.
- D. secondary and qualitative.

Question 25

When researchers study developmental changes, they often use identical twins.

This is because identical twins

- A. develop from two zygotes.
- B. always demonstrate the same types of behaviours.
- C. always demonstrate the same types of thinking processes.
- D. develop from one zygote.

Question 26

In developmental psychology, a sensitive period

- A. rarely occurs in the developing foetus before birth.
- B. is a period of time in the development of an individual when they are not sensitive to external environmental stimuli.
- C. is a period of time in the development of an individual when they are more responsive to certain types of environmental experiences.
- D. tends to last for extended periods of time for physical characteristics.

Question 27

In 1958, Harry Harlow conducted an experiment using two surrogate mothers and eight newborn rhesus monkeys. The results showed that one factor was particularly important to an infant monkey forming an attachment to its surrogate mother.

Which one of the following was the key factor for attachment?

- A. the provision of food
- B. the provision of contact comfort
- C. the physical appearance of the surrogate mother
- D. the size of the surrogate mother

Question 28

Which row of the table accurately compares the characteristics of a mental health problem and a mental disorder?

	Mental health problem	Mental disorder
A.	causes the individual to feel significant distress	causes the individual to feel upset
B.	behaviours are atypical for that individual	behaviours are typical for that individual
C.	interferes with the daily functioning of the individual	prevents the individual from completing some regular activities
D.	symptoms are present for two or three weeks	symptoms are ongoing for at least three months

Question 29

Which one of the following describes the Strange Situation test?

- A. a standardised test that measures the attachment relationship between a child and their caregiver
- B. a test usually conducted on children aged between 18 and 36 months
- C. a test conducted in a room that is familiar to both caregiver and child
- D. a non-standardised test that measures the attachment relationship between a child and their parent

Question 30

Charmin has an eleven-month-old baby named Jalani. Charmin initially struggled with adjusting to caring for Jalani but has always been very sensitive to Jalani's needs. When Jalani cries, Charmin immediately comforts her and attends to her needs.

Which type of attachment is Jalani is likely to develop with Charmin?

- A. insecure avoidant
- B. insecure resistant
- C. secure
- D. disorganised

Question 31

Seven-year-old Kiara has brought home several of her paintings from school. She is proud of her paintings and has asked her father to put them on the walls at home. Kiara's father, Milo, stores them in a drawer instead, explaining that they are too messy and will make the house look untidy.

According to Erikson's theory of psychosocial development, Kiara will feel

- A. guilty because she is in the initiative versus guilt stage of development.
- B. ashamed because she is in the autonomy versus shame and doubt stage of development.
- C. sad because she is in the generativity versus stagnation stage of development.
- D. inadequate because is in the industry versus inferiority stage of development.

Question 32

Cheyne paints their face in yellow and black stripes before going to watch their favourite football team play in the final game of the season.

Which approach views this as an example of normal behaviour?

- A. functional
- B. medical
- C. situational
- D. historical

Question 33

Which one of the following is an example of maladaptive behaviour?

- A. During the last two months, Joanna, who is usually very social, has not attended as many parties as she normally would.
- B. Since he finished his VCE examinations last week, Pietro has slept in until midday on most days.
- C. Since the beginning of winter, Margrit has had to set an alarm in time to get ready for school.
- D. Over the last few months, Sheba has struggled with falling asleep, which has made her consistently late for work.

Question 34

The *Diagnostic and Statistical Manual of Mental Disorders* (5th edition) is a widely used resource in mental health.

Which one of the following is information provided by this resource?

- A. the approximate age at which an illness may develop
- B. the cause of an illness
- C. the type of psychological treatment that should be provided for an illness
- D. the type of medications that should be prescribed for an illness

Question 35

Which one of the following is a biological factor that contributes towards the development of the mood disorder depression?

- A. difficulties in forming and maintaining relationships
- B. genetic predisposition
- C. high levels of stress
- D. living in poverty

Question 36

Every time Paolo sees a cat, he suffers from a panic attack. Hence, he does his best to avoid coming in contact with cats.

Which diagnosis would a medical professional most likely give Paolo?

- A. major depressive disorder
- B. anxiety disorder
- C. psychotic disorder
- D. personality disorder

Question 37

Which one of the following is an advantage of an individual gaining a diagnosis and a label for their mental disorder?

- A. Medical professionals can communicate more easily to discuss progress and care.
- B. Other people are more easily able to identify people who have the mental disorder.
- C. A cure can be found.
- D. A precise description of the individual can be given.

Question 38

Marcus is attending a support group to assist with understanding and coping with his recent diagnosis of schizophrenia.

Which one of the following factors is Marcus's attendance of the support group considered as?

- A. biological
- B. psychological
- C. external
- D. internal

Question 39

Valechka is in her third year of university and is currently studying attitudes towards animal testing.

In her study, Valechka uses a questionnaire containing a rating scale alongside a set of statements about various aspects of animal testing. Valechka lives in a building that has approximately 100 residents. Over a period of three days, Valechka knocks on all the doors of the residents in her building and asks each of them to participate in her study. She makes it clear to each resident that they can choose not to participate and can withdraw from the study if answering the questionnaire makes them uncomfortable. Valechka assures the participants that all results will be kept anonymous.

Which one of the following statements is correct?

- A. Valechka has not upheld confidentiality.
- B. Valechka has not upheld withdrawal rights
- C. Valechka has deceived the participants.
- D. Valechka has not obtained informed consent.

Question 40

When a researcher is calculating the mode of a set of numbers, they will

- A. add all the numbers together and then divide the total by the number.
- B. order the numbers in ascending order and select the number in the middle of the set.
- C. calculate the difference between the largest and the smallest numbers in the set.
- D. select the number that occurs most frequently.

END OF SECTION A

SECTION B**Instructions for Section B**

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

Question 1 (2 marks)

Early experiments performed on the brain provided scientists with information about its structure and function. In the 1960s, many studies were conducted with people who had undergone split-brain surgery.

- a. Identify the structure that is severed in this surgery. 1 mark

- b. Identify **one** finding that arose from these split-brain studies. 1 mark

Question 2 (6 marks)

Sarimah was relaxing at home on the couch after a day at school. She was feeling very hot, so she reached for the remote control to turn on the air conditioner.

- a. Identify **two** branches of the nervous system involved in this action and describe their role. 4 marks

Branch 1 _____

Role _____

Branch 2 _____

Role _____

- b. Sarimah had been enjoying the cool temperature of the room for about 20 minutes and was feeling very relaxed. Suddenly, her dog started barking loudly, which frightened Sarimah. She immediately sat upright on the couch and looked towards the dog, who had run to the front door.

Identify the branch of Sarimah's nervous system that was dominating at this time and give **one** physiological change that would occur within her body. 2 marks

Branch _____

Physiological change _____

Question 3 (2 marks)

- a.** Describe the function of Broca's area. 1 mark

- b.** Identify the location of Broca's area. 1 mark

Question 4 (4 marks)

Phineas Gage was a railway construction foreman who was working on laying new railway tracks. As he was packing down gunpowder with a metal rod, the gunpowder ignited and the rod shot through his left cheek and out through the top of his skull. Gage survived the accident but suffered permanent damage to his brain.

The physician who attended to Gage after his accident studied Gage's recovery for a number of years.

- a.** Identify the type of research investigation conducted by Gage's physician. 1 mark

- b.** Describe the main limitation of the type of research investigation identified in **part a.** 1 mark

- c.** Identify **one** biological and **one** social change that occurred in Gage as a result of his accident. 2 marks

Biological change _____

Social change _____

Question 5 (10 marks)

Raahul was investigating the effect of consuming red-coloured foods on the concentration of young Australian children, specifically those under five years of age.

He sent a letter to the families of a local kindergarten asking for permission for their children to participate in his study. He informed them of the nature of the study as well as any possible risks, ensuring that it was clear to the families that any children who had any allergies to food colouring or sugar should not participate in the study. After speaking with the kindergarten teachers, Raahul learned the children were very fond of jelly beans. Therefore, he decided to use jelly beans as the main material in his study.

Thirty children were allowed to participate in the study. Raahul divided the group of 30 children into two groups: one that received white jelly beans and one that received red jelly beans. To determine if consuming the red jelly beans affected the children's concentration levels, he counted the number of times they became distracted during story time at the kindergarten. Raahul received the following results.

Colour of the jelly beans consumed	Mean percentage of times a child was distracted
white	30%
red	72%

- a. State the aim of Raahul's research investigation. 1 mark

- b. State the independent variable of the study. 1 mark

- c. State the operationalised dependent variable of the study. 1 mark

- d. Write a research hypothesis for this study. 3 marks

- e. What conclusion did Raahul draw from his study? 1 mark

- f. Explain whether Raahul would have been able to generalise the results of this study. 3 marks

Question 6 (3 marks)

Nelly's family relocated from Australia to the south of France. Nelly is enrolled to complete her last two years of secondary school and her little brother, Luciano, will be starting primary school. Before the school year began, Nelly's family spent time meeting their neighbours and exploring the local area. Nelly became frustrated at how quickly and easily Luciano picked up the French language while she was struggling.

With reference to synaptogenesis and sensitive periods of development, explain why Luciano is able to learn the new language more quickly and easily than Nelly.

Question 7 (4 marks)

Erik Erikson developed a theory to describe the personality development of individuals.

- a. Explain why Erikson's theory is perceived as a discontinuous model of development. 2 marks

- b. In his theory, Erikson uses the concept of psychosocial crisis.
What is the meaning of this term in the context of Erikson's theory? 2 marks

Question 8 (3 marks)

Parkinson's disease is a chronic neurodegenerative disease.

- a.** Describe the biological changes that occur in the brain of an individual with Parkinson's disease. 2 marks

- b.** Identify **one** motor symptom of Parkinson's disease. 1 mark

Question 9 (6 marks)

Schizophrenia has been classified as a psychotic disorder.

- a.** Identify **one** positive and **one** negative symptom that is characteristic of an individual with schizophrenia. 2 marks

Positive symptom _____

Negative symptom _____

- b.** Using examples, explain what is meant by the 'two-hit hypothesis' as an explanation for the development of schizophrenia. 4 marks

Question 10 (10 marks)

Jean Piaget was a Swiss psychologist who studied cognitive development in children.

Discuss the main stages of Piaget's theory of cognitive development and the main criticisms of the theory.

For each stage:

- Identify the name and the ages at which it occurs.
- Describe the overall cognitive abilities that are developed.
- Identify and describe **two** key accomplishments.

VCE Psychology Unit 1

Written Examination

Multiple-choice Answer Sheet

Student's Name: _____

Teacher's Name: _____

Instructions

Use a **pencil** for **all** entries. If you make a mistake, **erase** the incorrect answer – **do not** cross it out. Marks will **not** be deducted for incorrect answers.

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

All answers must be completed like this example:

A	B	C	D
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Use pencil only

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D

16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D
21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D
26	A	B	C	D
27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D

31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D