

Trial Examination 2018

VCE Psychology Unit 1

Written Examination

Question and Answer Booklet

Reading time: 15 minutes

Writing: 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	16	16	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 20 pages.

Answer sheet for multiple-choice questions.

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

Instructions

Write **your name** and your **teacher's name** in the space provided on this booklet and in the space provided 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

The ancient Egyptians believed the human mind and soul, together with their associated thoughts, feelings and emotions, were held within the

- A. brain.
- B. stomach.
- C. liver.
- D. heart.

Question 2

Which one of the following statements about the study of phrenology is **incorrect**?

- A. Phrenology is the study of the bumps of the skull that reflect the individual's personality and intelligence.
- B. The study of phrenology is based on empirical evidence.
- C. Phrenology is regarded as a pseudoscience.
- D. Phrenology was an early technique used to predict human behaviour.

Question 3

During the twentieth century, the procedure known as electrical stimulation of the brain (ESB) was used by neurosurgeons.

ESB assisted with

- A. curing certain mental illnesses.
- B. improving speech comprehension and production.
- C. mapping the cerebral cortex.
- D. mapping the cerebellum.

Question 4

Some individuals with severe epilepsy underwent a procedure known as split-brain surgery.

This procedure involved cutting the

- A. cerebellum.
- B. cerebrum.
- C. cerebral cortex.
- D. corpus callosum.

Question 5

Computed tomography (CT) scans use

- A. X-rays to create black and white cross-sectional images of the brain.
- B. X-rays to create coloured cross-sectional images of the brain.
- C. magnetic fields to create black and white cross-sectional images of the brain.
- D. magnetic fields to create coloured cross-sectional images of the brain.

Question 6

Functional magnetic resonance imaging (fMRI) scans and positron emission tomography (PET) scans are neuroimaging techniques.

The advantage of using fMRI scans over PET scans is that fMRI scans

- A. produce coloured images, whereas PET scans do not.
- B. are enhanced by the use of coloured markers in the blood.
- C. do not use radioactive markers.
- D. are slightly slower and thus more accurate.

Question 7

Which one of the following sequences best illustrates the order of actions in the nervous system?

- A. receive information → respond to information → process information
- B. receive information → organise information → process information
- C. respond to information → process information → organise information
- D. receive information → process information → respond to information

Question 8

Charlize gave a speech on stage at the school assembly. Her heart was beating rapidly and her breathing rate was faster than normal. When Charlize returned to her seat, her heart rate and breathing rate slowed down again.

The branch of the nervous system that was responsible for the changes to Charlize's heart rate and breathing rate after she returned to her seat was the

- A. autonomic nervous system.
- B. somatic nervous system.
- C. parasympathetic nervous system.
- D. sympathetic nervous system.

Question 9

The main function of dendrites is to

- A. send neural impulses down the length of the neuron.
- B. instigate the electrical neural impulse within the neuron.
- C. receive information from other neurons.
- D. transmit information to other neurons.

Question 10

Interneurons are located within the

- A. peripheral nervous system.
- B. autonomic nervous system.
- C. sympathetic nervous system.
- D. central nervous system.

Question 11

What function do Schwann cells perform?

- A. They protect the neuron from infection.
- B. They produce and maintain the myelin sheath around the axons.
- C. They provide nutrition to the neuron.
- D. They provide structural support to the neuron.

Question 12

The hindbrain contains structures that include the

- A. cerebellum, thalamus and reticular formation.
- B. medulla, cerebellum and reticular formation.
- C. thalamus, reticular formation and pons.
- D. cerebellum, medulla and pons.

Question 13

The part of the brain that is important for smooth, fluid coordination of motor movements, balance and posture is the

- A. pons.
- B. pineal gland.
- C. medulla.
- D. cerebellum.

Question 14

The reticular formation has a vital role to play in

- A. arousal and consciousness.
- B. memory.
- C. sleep and dreaming.
- D. breathing and respiration.

Question 15

The medulla is important in

- A. maintaining arousal and consciousness.
- B. controlling vital body functions such as breathing.
- C. stimulating the onset of sleep.
- D. performing complex cognitive functions.

Question 16

Specialties of the right hemisphere include

- A. creativity, speech production and appreciation of art.
- B. spatial thinking, appreciation of music and daydreaming.
- C. creativity, speech comprehension and reading.
- D. writing, spirituality and visualising places.

Question 17

Jane stroked the velvet material of a cushion with her right hand.

Which part of her brain was responsible for detecting the feel of the velvet?

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

Question 18

Clara has suffered a stroke and has experienced difficulties in the production of her speech.

What is the likely area and lobe the stroke occurred in?

	Area	Lobe
A.	Wernicke's	temporal
B.	Broca's	parietal
C.	Wernicke's	occipital
D.	Broca's	frontal

Question 19

If Peter was consistently shaving only the right side of his face and was unaware that the left side was unshaved, which of the following lobes may be damaged?

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

Question 20

Which one of the following sequences best illustrates the order of the progressive development of myelination in the brain?

- A. hindbrain → midbrain → sensory cortex → motor cortex
- B. midbrain → sensory cortex → motor cortex → hindbrain
- C. motor cortex → sensory cortex → midbrain → hindbrain
- D. sensory cortex → motor cortex → midbrain → hindbrain

Question 21

Synaptic pruning

- A. is the elimination of overused synapses.
- B. occurs predominantly in the frontal lobe.
- C. is a process that occurs over a period of many years.
- D. occurs after synaptogenesis has been completed.

Question 22

In 1848 a metal rod shot upwards through the skull of Phineas Gage and caused damage to his prefrontal cortex.

What biological and psychological changes are consistent with this type of brain damage?

	Biological change	Psychological change
A.	increased range of facial expressions	increased emotional responsiveness
B.	reduced responsiveness to pain	forgetfulness
C.	minimal eye movement	inability to forward-plan
D.	reduced intelligence	poor organisation skills

Question 23

People suffering from Parkinson's disease may demonstrate

- A. short, shuffling steps when walking, reduced arm swing and stooped posture.
- B. short, shuffling steps when walking, increased arm swing and stiff upright posture.
- C. longer steps when walking, reduced arm swing and stooped posture.
- D. longer steps when walking, increased arm swing and stiff upright posture.

Question 24

Research into psychological development supports the concept that

- A. psychological and physiological changes occur in discrete and separate stages.
- B. psychological changes occur in discrete and separate stages but physiological changes occur as a continuous process.
- C. physiological changes occur in discrete and separate stages but psychological changes occur as a continuous process.
- D. psychological and physiological changes occur as a continuous process.

Question 25

Sweta drops her infant daughter at the day-care centre on her way to work. As Sweta leaves the playroom her daughter becomes visibly distressed.

Sweta's daughter is showing

- A. disorientation.
- B. separation anxiety.
- C. the early signs of a mental illness.
- D. attachment anxiety.

Question 26

Nicholas begins crying when his mother leaves the room. Upon her return, he reaches out for her. However, when she picks him up, Nicholas moves restlessly in her arms until she places him back on the play mat.

What is the type of attachment demonstrated between Nicholas and his mother?

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

Question 27

In 1958, Harry Harlow conducted experiments with infant monkeys to investigate infant attachment.

Results showed that the infant monkeys spent more time with the

- A. cloth surrogate mothers that provided food.
- B. wire surrogate mothers that provided food.
- C. cloth surrogate mothers regardless of whether they provided food or not.
- D. wire surrogate mothers regardless of whether they provided food or not.

Question 28

Identical twins are useful to investigate personality because they are

- A. monozygotic and share 100% genetic similarity.
- B. dizygotic and share 50% genetic similarity.
- C. monozygotic and share 50% genetic similarity.
- D. dizygotic and share 100% genetic similarity.

Question 29

In his study of cognitive development in children, Jean Piaget proposed that children

- A. sequentially move through four stages of development at the same rate.
- B. move through four stages of development at the same rate, although not necessarily in the same order.
- C. sequentially move through four stages of development but at different rates.
- D. move through four stages of development at different rates and in different orders.

Question 30

Tasha is ten months old. She has used the sides of the couch to enable her to move towards her favourite soft toy.

According to Piaget, this type of behaviour is an important accomplishment in the

- A. pre-operational stage.
- B. concrete operational stage.
- C. sensorimotor stage.
- D. formal operational stage.

Question 31

According to Erik Erikson's theory, a four-year-old would face the psychosocial crisis of

- A. trust versus mistrust.
- B. initiative versus guilt.
- C. autonomy versus shame and doubt.
- D. industry versus inferiority.

Question 32

In a study investigating the effect of listening to music on memory, 40 secondary school students were selected from a larger group of 300.

In this research investigation, the

- A. population was made up of 340 students.
- B. sample was made up of 300 students.
- C. population was made of 40 students.
- D. sample was made up of 40 students.

Question 33

Which one of the following statements is **not** true of the Diagnostic and Statistical Manual of Mental Disorders (DSM)?

- A. The manual provides a course of treatment for each mental disorder.
- B. The manual provides a diagnosis of a mental disorder based on symptoms.
- C. The manual provides information about a mental disorder based on gender and age.
- D. The manual provides prevalence of a mental disorder.

Question 34

An approach to normality that is based on quantitative data would be the

- A. functional approach.
- B. sociocultural approach.
- C. statistical approach.
- D. situational approach.

Question 35

Marie is concerned about her husband Joseph. Although his position in the company is secure, he constantly worries about his job. The family has a steady income and a healthy bank balance but Joseph is perpetually worried about paying the bills and having sufficient funds for their future.

Joseph most likely has a

- A. generalised fear disorder.
- B. social phobia.
- C. generalised anxiety disorder.
- D. panic disorder.

Question 36

To which category of mental disorders would phobias be classified?

- A. addiction disorders
- B. mood disorders
- C. anxiety disorders
- D. personality disorders

Question 37

Vaughn has a gambling problem.

What could this be a result of?

- A. increased levels of dopamine in Vaughn's brain
- B. Vaughn's belief that he has developed a method that will enable him to win
- C. Vaughn's belief that he can correctly calculate the odds in order to place a successful bet
- D. all of the above

Question 38

Ms Jende was investigating the role of listening to music in learning languages. She divided a sample into two groups; one group listened to music whilst studying a language, and the other group did not listen to music whilst studying a language.

The research method Ms Jende used was

- A. repeated measures.
- B. double-blind.
- C. matched participants.
- D. independent groups.

Question 39

Phil has been diagnosed with having a psychotic disorder.

Accordingly, Phil will

- A. become violent.
- B. lose his ability to form new memories.
- C. experience a loss of contact from reality.
- D. experience profound personality changes.

Question 40

When treating anxiety disorders, cognitive behavioural therapy (CBT) may be used.

This therapy aims to teach people

- A. how to change their behaviours so that they may change their thoughts and feelings.
- B. that the source of their anxiety is a flawed way of thinking.
- C. that the use of breathing and relaxation techniques will reduce their anxiety.
- D. how to change their thinking patterns so that they may change their behaviours.

END OF SECTION A

SECTION B

Instructions for Section B

Answer **all** questions in the spaces provided. Write using blue or black pen.

Question 1 (2 marks)

Jean is startled by the sound of a fire alarm.

Identify the branch of Jean's nervous system that was activated in response to the sound of the alarm and identify **two** physiological changes that occurred.

Question 2 (2 marks)

Glial cells and neurons are both important for nervous system functioning. However, they play different roles.

Using the example of a specific type of glial cell, describe the difference between the function of that glial cell and a neuron.

Question 3 (2 marks)

Gillian is helping to make toffees in the kitchen. Without realising that the metal spoon sitting in the saucepan is very hot, she picks it up. Immediately, Gillian drops the spoon.

Describe the roles of the sensory neurons and motor neurons in the given scenario.

Question 4 (3 marks)

Juan's father suffered a stroke. Following this his father had difficulty in moving the right side of his body.

- a. Which part of the brain has been affected by the stroke? 1 mark

- b. Twelve months later, after extensive occupational therapy and physiotherapy, Juan's father was showing great improvement.

Explain the processes that were occurring within Juan's father's brain during his recovery. 2 marks

Question 5 (2 marks)

Identify **two** different types of treatment that are available for people who have Parkinson's disease.

Question 6 (2 marks)

In an unusual case a girl named Sandy, aged seven, was found living alone in the outback. She had been alone since she was very young and had only survived due to a large reserve of bottled and tinned foods in an underground cellar. When found, Sandy could not speak. Doctors examined her and found her to be physically healthy.

Explain whether Sandy will be able to successfully learn to speak her native language.

Question 7 (1 mark)

With reference to brain development, explain why teenagers are more likely to engage in risky behaviours.

Question 8 (2 marks)

Using the Strange Situation procedure, how could a doctor determine if an infant was securely attached to their caregiver?

Question 9 (4 marks)

For many years psychologists have researched psychological development through adoption studies. Using the example of intelligence, explain how these studies contributed towards the roles played by nature (genetics) and nurture (environment).

Question 10 (4 marks)

Soula is interested in Piaget’s theories of development. She has twin seven-year-old boys and a daughter who is eleven. Soula believes that her daughter is developmentally advanced.

- a. According to Piaget, which stage should Soula’s children be in? 1 mark

- b. Identify and describe **one** test that Soula could attempt with her children at home to determine if they are still in the same developmental stage, and state the results she would need to confirm her belief. 3 marks

Question 11 (1 mark)

Describe **one** criticism of Erikson’s psychosocial theory.

Question 15 (5 marks)

Riku was born prematurely and had to be kept in hospital for the first six weeks of his life. When he came home the family made a fuss over him and his childhood was a happy one. When Riku started VCE his stress levels increased. He felt pressure to achieve to a high standard. Friends of Riku's encouraged him to smoke marijuana to help him relax. Midway through his VCE Riku began hearing voices. He stopped using his mobile phone as he believed that it was recording his thoughts and that ASIO was tracking his movements. Riku seemed to lose interest in his studies and withdrew into himself, speaking only when absolutely necessary and without much emotion.

His parents were very concerned and took him to a health professional, where he was diagnosed with schizophrenia.

- a.** Identify **two** positive symptoms of schizophrenia that Riku is exhibiting. 2 marks

- b.** Describe **one** negative symptom of schizophrenia that Riku is exhibiting. 1 mark

- c.** Explain the development of Riku's schizophrenia using the two-hit hypothesis. 2 marks

Question 16 (10 marks)

Psychologists have conducted a significant amount of research into the importance of attachment on an individual's emotional development.

Discuss how the use of case studies and observational studies contribute to this research and if ethical guidelines need to be followed. In your answer discuss the types of data collected, and the advantages and limitations of each method. Justify your response.
