

Trial Examination 2011

VCE Psychology Unit 4

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

Section		Number of questions	Number of questions to be answered	Number of marks
A	Multiple-choice questions	45	45	45
B	Short-answer questions	16	14	35
C	Extended response question	1	1	10
				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 white out liquid/tape.

No calculator is allowed in this examination.

Materials supplied

Question and answer booklet of 22 pages.

Answer sheet for multiple-choice questions.

Instructions

Please ensure that you write your **name** and your **teacher's name** in the space provided on this booklet and on your 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 electronic communication devices into the examination room.

Students are advised that this is a trial examination only and cannot in any way guarantee the content or the format of the 2011 VCE Psychology Unit 4 Written Examination.

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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

Plasticity of the brain occurs through which stages of the lifespan?

- A. during the embryonic stage only
- B. during childhood only
- C. from the embryonic stage to and including old age
- D. during childhood and early adulthood only

Question 2

When learning takes place, neurons send _____ from the _____ neuron to the _____ neuron.

- A. axons; pre-synaptic; post-synaptic
- B. neurotransmitters; post-synaptic; pre-synaptic
- C. axons; post-synaptic; pre-synaptic
- D. neurotransmitters; pre-synaptic; post-synaptic

Question 3

Lucy is reluctant to complete her Maths homework each night. Her teacher decides to give her a gold star each time she completes the Maths worksheet assigned for the day. Once Lucy gets five gold stars, she can take the class pet (a guinea pig) home for one night.

This type of learning strategy is an example of _____ which involves _____ conditioning.

- A. shaping; operant
- B. token economies; operant
- C. token economies; classical
- D. shaping; classical

Question 4

Lucy suffers from agoraphobia (fear of open spaces). To treat this, Lucy has been driven to a large field, then let out of the car, which then drove off to return in several hours. Lucy was then asked to report her anxiety levels every half an hour in order to see if they diminish over time.

This strategy is an example of

- A. systematic desensitisation.
- B. flooding.
- C. aversion therapy.
- D. negative reinforcement.

Question 5

Garcia & Koelling (1966) conducted a well known experiment in which rats were offered saccharine flavoured water to drink. When the rats drank the water they were either given an electric shock or given of a dose of illness inducing radiation. The rats subsequently acquired a taste aversion to the water.

This type of learning can be best described as

- A. operant conditioning.
- B. insight learning.
- C. classical conditioning.
- D. latent learning.

Question 6

When he was a boy Reggie would go camping on the Christmas holiday. One of the first tasks on arrival to the camping ground was to erect the portable barbecue which Reggie's mother would always do, without ever trying to teach any other members of the family how to put the barbecue together. Many years after the family camping trips finished, Reggie took his family camping. His mother packed the barbecue for him and when he arrived at the camping site, he realised he had never been taught how to erect it; despite this he was able to erect it.

Reggie's ability to erect the barbecue in this case is an example of

- A. insight learning.
- B. observational learning.
- C. operant conditioning.
- D. latent learning.

Question 7

A study done by Draganski, *et al.* (2004) found that brains showed a 3 to 4 per cent increase in grey matter when learning a new skill, such as juggling, over an extended period.

The researchers could best determine the increase in grey matter by using

- A. an EEG.
- B. biofeedback.
- C. observing the exposed cerebral cortex (during brain surgery) for a conscious patient.
- D. an MRI.

Question 8

After spending 40 minutes trying to figure out how to use the webcam on his computer (which he last used a year ago) Dwayne went for a 20 kilometre bike ride. About three quarters of an hour into the ride, Dwayne was thinking about the webcam and suddenly realised he needs to change programs to make the webcam functional.

Dwayne's learning in this case is an example of

- A. insight learning.
- B. observational learning.
- C. operant conditioning.
- D. latent learning.

Question 9

Thorndike, through the use of a puzzle box experiment, used the term _____ learning to describe the process that cats had learned to associate between behaviour and its consequences.

- A. observational
- B. instrumental
- C. latent
- D. insight

Question 10

Julie has a new dog 'Ralphie' that she wants to train to fetch the morning paper from the front of the driveway to the door step. She originally throws a stick from the door to the driveway to fetch, then uses a rolled up paper. She has decided to use dog biscuits as reinforcers, initially.

Which of the following methods would be most effective in conditioning Ralphie to fetch the paper?

- A. Give Ralphie a dog biscuit every time it fetches the paper.
- B. Give Ralphie a dog biscuit every fifth time it fetches the paper.
- C. Randomly give Ralphie a dog biscuit on average every fifth time it fetches the paper.
- D. Randomly give Ralphie a dog biscuit on average once a week, if it fetches the paper every day of the week.

The following information relates to Questions 11 to 13.

Whenever Lauren gets a bill she carefully notes two details: first, the due date; second, any penalties, which usually range from \$10 to \$100, that apply if she fails to pay before the due date. Thus far, Lauren has never paid a bill late.

Question 11

Using the three-phase model of operant conditioning, paying her bills on time is the

- A. behaviour.
- B. consequence.
- C. discriminative stimulus.
- D. conditioned response.

Question 12

Using the three-phase model of operant conditioning, viewing the due date and late fee identified on each bill is the

- A. behaviour.
- B. consequence.
- C. discriminative stimulus.
- D. conditioned response.

Question 13

Lauren paying bills on time to avoid the fine involves

- A. positive reinforcement.
- B. negative reinforcement.
- C. punishment.
- D. shaping.

Question 14

In classical conditioning the stimulus always _____ the response; for operant conditioning the response always _____ the stimulus.

- A. occurs after; occurs after
- B. precedes; precedes
- C. precedes; occurs after
- D. occurs after; precedes

Question 15

Watson and Rayner (1920) were unable to extinguish Little Albert's conditioned emotional response of White Rabbit, due to Little Albert's mother moving to a new city.

The extinction of Little Albert's fear was part of what is now known as the ethical principle of

- A. informed consent.
- B. debriefing.
- C. withdrawal rights.
- D. deception.

Question 16

In order to overcome his addiction to smoking, Keith consented to participate in an experiment in which cigarettes were repeatedly paired with a nausea-inducing drug. Eventually Keith felt ill at the sight or smell of a cigarette.

This type of technique is known as

- A. latent learning.
- B. aversion therapy.
- C. operant conditioning.
- D. trial and error learning.

The following information relates to Questions 17 to 18.

Bandurra's 1963a experiment consisted of 4 groups.

Experimental group 1	observed human 'real life' aggressive models
Experimental group 2	observed human aggressive models on film
Experimental group 3	observed cartoon character aggression (on film)
Control group	no exposure to aggressive models

The four groups were then filmed and escorted to the play rooms.

Question 17

Which of the following best describes Bandura's conclusions?

- A. Only the children who viewed 'real life' aggressive models would imitate the aggressive behaviour when given the opportunity to on a later occasion.
- B. Only the children who viewed aggressive models of humans on film would imitate the aggressive behaviour when given the opportunity to on a later occasion.
- C. Exposure of children to aggressive models increased the probability that they will respond aggressively when given the opportunity on a later occasion.
- D. Only the children who viewed aggressive models of cartoon characters would imitate the aggressive behaviour when given the opportunity to on a later occasion.

Question 18

The 1963a experiment also subdivided each of the experimental groups into male and female participants.

Which of the following best explains Bandura's findings for sex differences?

- A. There was no statistical difference between girls and boys for aggressive behaviour for boys and girls.
- B. Only boys who observed aggressive cartoon models would behave more aggressively than girls who observed aggressive behaviour.
- C. Only boys who observed aggressive 'real life' models would behave more aggressively than girls who observed aggressive behaviour.
- D. There were significant sex differences in aggressive behaviour.

Question 19

In order to stop the Year 9 students from leaving their locker room messy during lunchtime, the year 9 coordinator has taken their iPods from them until they have a lunchtime in which they do not leave a mess in their locker room.

This strategy can be best described as

- A. punishment.
- B. negative reinforcement.
- C. shaping.
- D. trial and error learning.

Question 20

The changes that occur on a neural pathway during learning, resulting in the strengthening of synaptic connections of neurons, is known as

- A. postsynaptic terminals.
- B. neurotransmitters.
- C. melatonin.
- D. long-term potentiation.

Question 21

Which of the following age groups would have the highest number of synapses?

- A. infants
- B. young adults
- C. elderly
- D. newborns

Question 22

Adaptive plasticity occurs

- A. only to the damaged brain.
- B. only to compensate for any loss of brain functionality.
- C. only when new learning occurs.
- D. in response to brain damage as well as a consequence from our day-to-day experiences.

Question 23

Being able to live independently and complete ordinary day-to-day tasks falls under which approach to defining normality?

- A. socio-cultural
- B. functional
- C. situational
- D. medical

Question 24

Jim has been experiencing some nightmares, but this has not affected his day-to-day life as a VCE student.

This demonstrates that Jim is in _____ and that he may need to talk to a _____ about his sleeping experiences if the nightmares become a concern.

- A. poor mental health; psychiatrist
- B. poor mental health; psychologist
- C. good mental health; psychiatrist
- D. good mental health; psychologist

Question 25

When comparing mental illness with mental health, we are more likely to find that mental illness can best be defined as

- A. suffering from various mental disorders in an uncontrolled manner.
- B. experiencing repeated visions and hallucinations over a concentrated period of time.
- C. experiencing serious ongoing diagnosed difficulties for a long period of time that may require treatment.
- D. moving in and out of consciousness and being unable to make decisions or follow instructions.

Question 26

Which of the following is not regarded as being part of the biopsychosocial framework?

- A. behavioural factors
- B. biological factors
- C. social factors
- D. psychological factors

Question 27

The main purpose of the Diagnostic and Statistical Manual edition 4 is to

- A. effectively treat people who have a variety of mental disorders.
- B. accurately classify and diagnose mental disorders.
- C. refer people for medical and further psychological assessment.
- D. determine which mental disorders are correctly classified and listed.

Question 28

The Diagnostic and Statistical Manual is a system that has _____ axes and Axis 1 concerns _____.

- A. four; global assessment and functioning
- B. five; clinical disorders and other conditions that may need attention
- C. three; general medical conditions
- D. six; personality disorders and mental retardation

Question 29

What is the major difference between the International Classification of Diseases, and the Diagnostic and Statistical Manual in classifying mental disorders?

- A. There are significant differences in classifying mental disorders between the two systems.
- B. The DSM is updated more regularly than the ICD.
- C. The ICD separates mental disorders from behavioural disorders, whereas the DSM places everything under mental disorders.
- D. The ICD is a much more detailed system for categorising mental illness.

The following information relates to Questions 30 to 32.

A psychologist was interested in studying the reaction time when someone is faced with a sudden, potentially frightening situation. He selected two groups of students: 20 males and 20 females studying literature at a local university. They were told as part of their assessment that they were required to present a five minute talk on their own topic, based on any book they studied recently. Every second student who presented their talk was confronted by a fire alarm and ordered to evacuate immediately. They were timed to see how quickly they evacuated the room.

Reaction time showed the following results:

Group A – 10 males	$\bar{x} = 24$ seconds
Group B – 10 females	$\bar{x} = 21$ seconds

Results clearly indicated that males had slower reaction times to a sudden situation.

Question 30

This study attempted to investigate which major stress related issue?

- A. fight-flight response
- B. gender differences in reaction time
- C. mental disorders and their resulting consequences
- D. psychological issues related to tertiary education

Question 31

What ethical issues were not adequately addressed in the outline of this study?

- A. No ethical issues were breached.
- B. Students should have been selected from a wider range of universities.
- C. Students were not volunteers and were told their assessment was based on participation.
- D. No debriefing occurred.

Question 32

How statistically significant are the results of this study?

- A. Very significant: there was a large difference in reaction times between males and females.
- B. Not significant, as not enough subjects were used in the study.
- C. Very significant, as presenting a talk to an audience creates a great deal of stress that is easily measurable.
- D. Not significant, as there was insufficient evidence to draw any conclusions from this study.

Question 33

What is the correct biological sequence when a threat is perceived?

- A. The pituitary gland activates the hypothalamus to release ACTH to activate the adrenal glands.
- B. The hypothalamus activates the pituitary gland to release ACTH to activate the adrenal glands.
- C. Adrenaline, noradrenaline and cortisol activate the hypothalamus.
- D. Adrenaline, noradrenaline and cortisol activate the pituitary gland.

Question 34

Jane has been under a lot of stress at work, and now she has developed a bad cold yet, she continues to work, ignoring the physiological symptoms she is enduring.

According to Selye's General Adaptation Syndrome (GAS), she is likely to be at what stage?

- A. alarm reaction
- B. resistance
- C. shock/countershock
- D. exhaustion

Question 35

What is the major negative criticism that can be levelled at the GAS?

- A. Our bodies have a limited amount of resources to cope with ongoing stress.
- B. The GAS has a doubtful influence on our endocrine system and its various hormones.
- C. There is not enough research to indicate that the three stage GAS model has any relevance.
- D. It assumes that everyone has a similar, automatic response to any kind of stressor.

Question 36

What is the major finding of Lazarus & Folkman's transactional model of stress and coping?

- A. Stress is the result of the environment influencing the individual, as well as the individual influencing the environment.
- B. We all respond to stress in the same psychological way, no matter what the stressor may be.
- C. The environment plays a major role in determining our psychological response to stress.
- D. The stressful event creates a psychological response despite the environmental context in which it arises.

Question 37

Ronald is an adventurer who loves to go white water rafting, whereas his girlfriend Kate gets quite anxious when she participates in this event.

It is likely that Ronald experiences _____, while Kate experiences _____.

- A. eustress; distress
- B. distress; eustress
- C. shock; countershock
- D. countershock; shock

Question 38

The biopsychosocial framework does not explain how various factors combine when we experience a stressful event.

How does allostasis explain this?

- A. It is similar to the body's ability to achieve homeostasis.
- B. It incorporates the role of cognitive processes in responding to stress.
- C. It helps the body achieve stability by changing.
- D. There should be no fluctuation in bodily levels of activity.

Question 39

Greg, who has been suffering from stressful reactions, has been hooked up to a device known as a(n) _____ in order for him to _____.

- A. EEG; take control of his brain wave functioning
- B. biofeedback monitor; control physiological responses using thought processes
- C. EEG; to monitor levels of consciousness and control brain wave patterns
- D. biofeedback monitor; to alter extreme levels of blood pressure and cholesterol

Question 40

The **role** of GABA in the stress response is to

- A. excite neurons in the brain and create an arousal response.
- B. act in league with the hypothalamus and pituitary gland to control stress reactions.
- C. construct a bridge of neurons that would control the flow of physiological responses in the body.
- D. carry messages between neurons in the brain, acting as naturally occurring neurotransmitters.

Question 41

The **impact** GABA has on the brain is to

- A. inhibit post-synaptic neurons from firing to maintain optimal neurotransmission.
- B. excite post-synaptic neurons to increase firing and to maintain homeostasis.
- C. work similarly to glutamate in order that neurons are less likely to fire.
- D. heighten anxiety and create an ongoing anxious response.

Question 42

Geraldine has developed a phobia of spiders based on a conditioned fear response. Which model does this indicate?

- A. psychodynamic
- B. behavioural
- C. cognitive
- D. socio-cultural

Question 43

The key aspect of cognitive behavioural therapy (CBT) in treating people with phobias is to

- A. encourage exploration of their dysfunctional behaviour with a view to complete behaviour change.
- B. apply a wide range of therapeutic techniques for existing phobic responses.
- C. challenge people's thought processes and instead develop techniques to overcome these negative thoughts.
- D. introduce specific behavioural management techniques to existing strategies used to resist phobias.

The following information relates to Questions 44 and 45.

A psychologist wanted to discover which was the most effective treatment for phobias by comparing results of three groups of people who were afraid of heights. Group 1 were all taken to the top floor of a large building; Group 2 were shown DVDs of people climbing mountains; and Group 3 were given counselling to relieve their anxiety about heights.

Question 44

Identify the control group.

- A. Group 1
- B. Group 2
- C. Group 3
- D. There was no control group.

Question 45

What is the likely conclusion of this study, based on the information provided?

- A. It is a valid study as all participants had the same phobia.
 - B. It is an invalid study as we have no means of comparing the various treatments.
 - C. It is a valid study as all participants were given treatment.
 - D. It is an invalid study as we are not told about the number of participants in each group.
-

SECTION B – SHORT-ANSWER QUESTIONS

Instructions for Section B
Answer **all** questions in the spaces provided.

Question 1

Certain species of sea turtles head for the ocean as soon as they hatch from their eggs.

a. This is known as _____.

1 mark

b. Explain why this behaviour is not considered learning.

1 mark

Question 2

At the Sunshine Aquarium the trainers use **shaping** to teach the dolphins to perform tricks.

a. Why would shaping be used in this case?

1 mark

b. Explain how shaping could be used in the situation described above.

1 mark

Question 3

During a school camp which involved spending a night in a tent, a tree fell on Alex’s tent while he was sleeping, resulting in a major back injury. Years later, despite being fully recovered, Alex feels anxious whenever he drives past a camping ground and sees people in a tent.

In this case, identify the:

- a. neutral stimulus

_____ 1 mark

- b. unconditioned stimulus

_____ 1 mark

- c. conditioned response

_____ 1 mark

Question 4

Mr Evans, the school first aid officer, provides a demonstration at school assembly on how to use an epiPen so that all members of the school community can perform this task in the case of a medical emergency for the ten students in the school who could potentially suffer from anaphylaxis (a severe allergic reaction, remedied by a an epiPen shot). This form of learning is known as observational learning.

- a. Identify **two** factors that could affect the likelihood of students paying attention to Mr Evans.

_____ 2 marks

- b. For the students who do pay attention to Mr Evans, according to Bandurra, identify and describe the next step of observational learning that needs to occur for the learning to take place.

_____ 2 marks

Question 5

What are neurotransmitters and what is their role in learning?

_____ 2 marks

The following information relates to Questions 6 to 8.

Dr Maxine Queue wanted to investigate the effectiveness of using operant conditioning versus observational learning to reduce bullying in primary schools. A primary school in the eastern suburbs was chosen as the site for the experiment. Grade 3A was the operantly conditioned group; Grade 3B was the observational learning group.

Grade 3A had 23 students (17 male, 6 female). Grade 3B had 22 students (6 male, 16 female).

All students were required to carry a pocket-sized journal during recess and lunchtime and record any bullying that took place.

Grade 3A: Throughout the first term, the teacher offered a reward (a bag of lollies) to any student who reported any bullying. The bully was then punished by being sent to the deputy principal's office for the term.

Grade 3B: At the start of term, the teacher arranged for one of the students in the class to bully another student in the class (both students consented to pretending to be the bully and victim respectively). The teacher then sent the bully to the deputy principal for the afternoon.

In second term, the number of bullying incidents was recorded.

	Number of bullying incidents reported
Grade 3A	17
Grade 3B	6

Question 6

Identify and describe the sampling method used by Dr Maxine Queue.

2 marks

Question 7

Identify a potential confounding variable in this experiment.

1 mark

Question 8

What generalisations could be made about this experiment? Justify your response.

2 marks

Question 10

a. What is the main purpose of the Holmes & Rahe (1967) Social Readjustment Scale in terms of stress?

1 mark

b. Discuss **one** key benefit and **one** key criticism of this scale.

2 marks

Question 11

Define the term **phobia**.

1 mark

Question 12

Give an example of a phobia, a way that phobia could be created, and a possible treatment of it.

a. Phobia

_____ 1 mark

b. What might induce or create this phobia?

_____ 1 mark

c. Provide an example of a possible treatment of that phobia.

_____ 1 mark

Question 13

Provide a benefit and disadvantage of using a Matched Participant Design and an Independent Groups Design in a psychology experiment.

a. Matched Participant

Benefit _____

Disadvantage _____
_____ 1 mark

b. Independent Groups

Benefit _____

Disadvantage _____
_____ 1 mark

Answer one of either:

- **Question 14 (Major Depression),**
- **Question 15 (Addictive Gambling) or**
- **Question 16 (Schizophrenia).**

Question 14

Major Depression

a. In terms of depression, what is learned helplessness?

1 mark

b. Provide a reason for the development of depression, based on a particular approach you choose.

2 marks

c. Describe a method of treating depression.

2 marks

Question 15

Addictive Gambling

a. Name **four** possible consequences of problem gambling.

2 marks

b. What is meant by an addictive disorder?

1 mark

c. How would psychodynamic psychotherapy assist someone with a gambling addiction?

1 mark

d. How would cognitive behavioural therapy assist someone with a gambling addiction?

1 mark

Question 16

Schizophrenia

a. Explain the meaning of the term **psychotic disorder**.

1 mark

b. Name and describe **two** symptoms of schizophrenia.

Symptom 1

Symptom 2

2 marks

c. Name and describe a possible psychological treatment or therapy for schizophrenia.

2 marks

