

Trial Examination 2012

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	13	11	35
C	Extended answer 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 2012 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

An example of learning is

- A. feeling nauseous when seeing or smelling fish after eating contaminated seafood several years ago.
- B. a five-month-old child sitting up for the first time after being encouraged by her parents.
- C. developing goosebumps after getting out of the cold water at the beach on a warm day.
- D. sea turtles heading for the ocean, straight after hatching from their buried eggs.

Question 2

In terms of the brain's ability to recover from injury, a true statement would be

- A. an infant's brain will recover from injury faster than an adult's brain due to developmental plasticity.
- B. an infant's brain will recover from injury faster than an adult's brain due to adaptive plasticity.
- C. an adult's brain will recover from injury faster than an infant's brain due to maturation.
- D. an adult's brain will recover from injury faster than an infant's brain due to adaptive plasticity.

Question 3

The development of an infant's visual cortex in response to visual stimuli is an example of _____ learning; the development of a child's ability to play cricket is an example of _____ learning.

- A. experience-expectant; experience-dependent
- B. experience-expectant; experience-expectant
- C. experience-dependent; experience-dependent
- D. experience-dependent; experience-expectant

Question 4

Proliferation is a feature of _____ plasticity that occurs _____.

- A. developmental; during early brain development
- B. developmental; throughout the lifespan
- C. adaptive; throughout the lifespan
- D. adaptive; in childhood

Question 5

The role that NMDA (N-methyl D-aspartate) plays in learning can be described as that of

- A. a neurotransmitter responsible for long term potentiation (LTP).
- B. a brain structure found in the medial temporal lobe that is responsible for LTP.
- C. a specialised receptor responsible for receiving the neurotransmitter glutamate.
- D. a hormone that is activated by the sympathetic nervous system when exposed to environmental stimuli.

Question 6

The device that would provide the clearest images of changes in a subject's brain structure following their completion of a six-week program on learning how to juggle would be a/n

- A. PET.
- B. TMS.
- C. EEG.
- D. MRI.

Use the following information to answer Questions 7 to 9.

Vern has decided to use a sticker chart to get his son, Adrian, to eat vegetables during dinner time. Every time Adrian eats all of the vegetables on his dinner plate he is given a sticker to put on his chart. When he fills the chart he can trade his stickers for a Lego kit.

Question 7

The schedule of reinforcement that Vern is using when issuing stickers for eating vegetables during dinner time is

- A. fixed ratio.
- B. continuous reinforcement.
- C. fixed interval.
- D. variable ratio.

Question 8

The schedule of reinforcement that Vern is using when issuing a Lego kit once the sticker chart is full is

- A. fixed ratio.
- B. continuous reinforcement.
- C. fixed interval.
- D. variable ratio.

Question 9

The type of learning that Vern is applying in this case is

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

Question 10

The type of learning which often appears quite suddenly following a period of mental manipulation of a problem is

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

Use the following information to answer Questions 11 to 13.

When Joel was on a beach holiday he put his dog Parkinson on his surfboard whilst out on the water. Parkinson wagged his tail and barked excitedly as he rode the surfboard in to shore. Joel went on to surf with Parkinson, who continued to bark and wag his tail whilst riding waves, for the rest of the holiday.

Three months later Joel was waxing his surfboard in his garage. Parkinson came in and saw Joel with the surfboard and started barking excitedly and wagging his tail in anticipation of going out to surf.

Question 11

Parkinson's response of barking excitedly and wagging his tail whilst riding a wave is an example of

- A. operant conditioning.
- B. one-trial learning.
- C. a fixed action pattern.
- D. classical conditioning.

Question 12

Parkinson's response of barking excitedly and wagging his tail when he sees Joel waxing his surfboard in the garage is

- A. an operant response.
- B. a conditioned response.
- C. a response that has been spontaneously recovered.
- D. a response that is a result of stimulus generalisation.

Question 13

Parkinson's learning has occurred

- A. actively.
- B. vicariously.
- C. latently.
- D. reflexively.

Question 14

The type of learning which occurs when no reinforcement is given to the learner during the learning process is

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

Question 15

In order for successful conditioning of behaviour to occur, ideally the stimulus should be presented _____ the response when operantly conditioned, whereas the stimulus should be presented _____ the response when classically conditioned.

- A. any time before; just after
- B. just before; any time after
- C. any time after; just before
- D. just after; just before

Use the following information to answer Questions 16 and 17.

Five-year-old twins Jack and Jill were playing in the bathroom when Jack decided to eat a handful of his dad's shaving cream. Jack later started vomiting as a result of this. His father heard Jack, came upstairs and put Jack in the 'naughty corner' for ten minutes for playing with the items in the adults' bathroom cupboard. Later, Jill told Jack that she will 'never play with any of the things in the adults' cupboard because it is naughty'; whilst Jack said 'I am never eating shaving cream again, because it makes me sick.'

Question 16

Jill's learning to not play with things in the adults' cupboard is an example of

- A. one-trial learning.
- B. classical conditioning.
- C. vicarious punishment.
- D. negative reinforcement.

Question 17

Jack's learning to not eat shaving cream is an example of

- A. one-trial learning.
- B. punishment.
- C. vicarious punishment.
- D. negative reinforcement.

Use the following information to answer Questions 18 to 23.

A university professor decided to partially replicate Bandura's (1963a and 1963b) Bobo doll experiments. Thirty kindergarten-aged children (aged from 41 to 54 months) were chosen from a kindergarten close to the university to participate in the experiment. All participants were pre-tested according to their existing levels of aggression, and their selection was based on these pre-tested levels. Parents gave informed consent for their child's participation in the experiment. The children were then grouped together based on similarity of existing levels of aggression, and then randomly allocated to one of three groups:

- Group 1: not exposed to aggression
- Group 2: exposed to cartoon aggression (in which aggressive behaviour was praised and rewarded with lollies)
- Group 3: exposed to film aggression (in which aggressive behaviour was praised and rewarded with lollies)

On a morning session at kindergarten, the Group 2 children were ushered into a room in which they viewed a cartoon with numerous physically aggressive acts. In the afternoon, Group 3 was ushered to another room in which they observed a film with a number of aggressive acts.

Meanwhile, Group 1 was outside playing on the outdoor play equipment, where they remained for the entire day.

Immediately after the cartoon finished Group 2 were ushered into a playroom that contained a number of toys, some of which were 'non-aggressive toys', e.g. dolls, while others were labelled 'aggressive toys', e.g. guns, a hammer, etc. Group 2 were in the playroom for half an hour and during this time the number of aggressive acts was observed, e.g. hitting a doll with a hammer. This process was repeated for Group 3 immediately after the film finished.

Group 1 was also observed in the playroom, with the number of aggressive acts observed.

Question 18

The dependent variable in this case was

- A. the age and gender of the children.
- B. the number of aggressive acts that the children were observed performing.
- C. the type of film that the children observed.
- D. whether the child was exposed to no aggression, cartoon aggression or filmed aggression.

Question 19

The research design in this case was

- A. matched triplets. (i.e. matched pairs, except that three subjects were matched on aggression levels).
- B. repeated measures.
- C. independent groups.
- D. stratified sampling.

Question 20

The experiment was criticised for having a high degree of artificiality due to the manner in which participants were separated into groups and then exposed to either an aggressive cartoon or film, or neither. The method of data collection that could best overcome the artificiality identified in this case would be

- A. a case study.
- B. naturalistic observation.
- C. a questionnaire issued to the children.
- D. independent groups.

Question 21

The most likely conclusion for this experiment if the results were consistent with Bandura's findings is that

- A. children's learning of aggressive behaviour occurs as a result of maturation.
- B. children's learning occurs as a result of the direct consequences applied to their aggressive behaviour.
- C. children's learning is a reflexive process in response to aggressive environmental stimuli.
- D. children's learning of aggressive behaviour can occur vicariously.

Question 22

The experimental finding that would be expected if the results were consistent with the 1963a results would be that

- A. only the group that observed filmed aggression were likely to imitate aggressive behaviour.
- B. only the group that observed cartoon aggression were likely to imitate aggressive behaviour.
- C. the groups that observed cartoon and filmed aggression were more likely to imitate aggressive behaviour than the control group.
- D. all the groups demonstrated a similar level of aggression.

Question 23

The thirty children used in the experiment is an example of

- A. a random sample.
- B. a stratified sample.
- C. a convenience sample.
- D. the population of the experiment.

Question 24

The antecedent condition for the cat in Thorndike's puzzle box experiment was

- A. being released from the puzzle box.
- B. being placed in the puzzle box.
- C. obtaining food.
- D. the first error made when trying to escape the puzzle box.

Question 25

In Kohler's experiment with Sultan the chimp, there was a stage during the experiment in which Sultan stopped attempting to actively get the food. Kohler theorised that Sultan was working on the problem unconsciously.

This stage is known as

- A. insight.
- B. verification.
- C. incubation.
- D. preparation.

Question 26

A type of behaviour that can **not** be considered as abnormal is

- A. deviant behaviour.
- B. deliberate behaviour.
- C. dysfunctional behaviour.
- D. disturbing behaviour.

Question 27

The transitional approach to symptoms of mental disorders is a key feature of the

- A. DSM-IV
- B. dimensional approach to the classification of mental disorders.
- C. ICD-10
- D. multi-axial approach.

Question 28

A factor that is common to both classical and operant conditioning is

- A. shaping.
- B. flooding.
- C. spontaneous recovery.
- D. reflexive responses.

Question 29

According to Tolman's maze experiments, two groups of rats were reinforced in the following manner:

- Group 1: The rats were reinforced with food each time they completed a maze route correctly.
- Group 2: The rats were not reinforced with food upon completion of the maze until the twelfth day of the experiment. The day after being rewarded, they were virtually matching the time achieved by the first group.

In this case Group 1 had learned via _____ and Group 2 had learned via _____.

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

Use the following information to answer Questions 30 to 34.

After a recent discovery of moles on areas of his back, Rod had a two-week wait to see a skin specialist. During this two week period Rod continued to work effectively in his role as VCE coordinator, despite poor sleep and a reduced appetite caused by the stress of his health. Rod's colleague, a Psychology teacher, remarked that Rod's 'cortisol is obviously working effectively'.

Two weeks later Rod got the news that the moles were benign and that he was in good health.

Question 30

The component of the HPA axis that releases cortisol is the

- A. hypothalamus.
- B. pituitary gland.
- C. parasympathetic nervous system.
- D. adrenal gland.

Question 31

According to Seyle's General Adaptation Syndrome, Rod's level of resistance would have been below his normal level of resistance during

- A. allostasis.
- B. resistance.
- C. countershock.
- D. shock.

Question 32

According to Seyle's General Adaptation Syndrome, cortisol is first released into the bloodstream during

- A. exhaustion.
- B. resistance.
- C. countershock.
- D. shock.

Question 33

A eustress response that Rod may have experienced during his ordeal could be

- A. alertness at work.
- B. irritability at home.
- C. nervousness when commuting to work from home.
- D. anxiety that kept him awake at night.

Question 34

If Rod had experienced allostatic load during his ordeal

- A. his allostatic response would have been enhanced for future stressors.
- B. there would have been a potential early termination of his allostatic response.
- C. there would have been heightened and efficient activity of the sympathetic nervous system for the entire duration that Rod experienced stress.
- D. his body would continue to cope with the internal and external demands placed on it.

Question 35

A double-blind procedure (rather than a single-blind procedure) is used to eliminate a/n _____ effect.

- A. order
- B. placebo
- C. experimenter
- D. observer

Question 36

A benefit of physical exercise in terms of reducing stress levels is that

- A. it reduces our levels of beta endorphins, thus promoting a sense of well-being.
- B. it diverts attention towards stressors.
- C. it uses up stress hormones produced by the HPA axis.
- D. it increases muscle tension.

Question 37

GABA's role in the regulation of levels of arousal in the body can be described as the major _____ neurotransmitter found in the _____ nervous system.

- A. excitatory; central
- B. excitatory; peripheral
- C. inhibitory; central
- D. inhibitory; peripheral

Question 38

The use of benzodiazepine to manage stress responses has an _____ effect at the synapse which _____ the effect of GABA in the nervous system.

- A. agonistic; enhances
- B. agonistic; inhibits
- C. antagonistic, enhances
- D. antagonistic, inhibits

Use the following information to answer Questions 39 to 43.

Lisa is a twenty-one-year-old 100 m hurdler who recently competed in the Australian Athletics Championships, which served as the major qualifying event for the 2012 London Olympics.

Lisa needed to finish in the top two place-getters in the final to qualify. She was clearly in second place when she clipped the final hurdle and fell, and so failed to qualify for London. Lisa was, naturally, devastated and initially believed that her only option was to give up athletics in order to concentrate on her studies, as she felt that she had wasted the last three years trying to qualify for the Games.

She then turned to family for advice, who encouraged her to attempt to qualify for the World Athletics Championships the following year, and offered her financial assistance to help with her training. Lisa explained that she had lost confidence in her hurdling ability and that she needed to see a sports psychologist to help her overcome her lost confidence.

Question 39

Lisa's appraisal of her situation is an example of a/n _____ factor that contributes to stress.

- A. social
- B. psychological
- C. biological
- D. environmental

Question 40

According to Lazarus and Folkman's Transactional Model of Stress and Coping, Lisa's initial devastation at missing out on the Olympics is an example of

- A. problem-focused coping.
- B. emotion-focused coping.
- C. primary appraisal.
- D. secondary appraisal.

Question 41

According to Lazarus and Folkman's Transactional Model of Stress and Coping, Lisa's initial plan to give up athletics in order to concentrate on her studies is an example of

- A. problem-focused coping.
- B. emotion-focused coping.
- C. primary appraisal.
- D. secondary appraisal.

Question 42

According to Lazarus and Folkman's Transactional Model of Stress and Coping, Lisa's planned use of a sports psychologist would be an example of

- A. problem-focused coping.
- B. emotion-focused coping.
- C. primary appraisal.
- D. secondary appraisal.

Question 43

Lisa would obtain _____ from a sports psychologist.

- A. tangible assistance
- B. information support
- C. emotional support
- D. appraisal support

Question 44

A true statement in regards to phobias that have been acquired via classical conditioning is

- A. they are generally maintained via classical conditioning.
- B. they can only be extinguished via negative reinforcement.
- C. they can be maintained via negative reinforcement.
- D. flooding is the most effective means of extinguishing classically conditioned phobias.

Question 45

The use of cognitive behavioural therapy in the treatment of aviophobia (fear of flying) is an example of a _____ treatment of a phobia.

- A. sociocultural
- B. psychological
- C. biological
- D. biofeedback

SECTION B – SHORT ANSWER QUESTIONS**Instructions for Section B**

Answer all questions in the spaces provided.

Question 1

- a. Why are both fixed action patterns and reflexes considered exceptions to learned behaviour?

1 mark

- b. Using examples, distinguish between a fixed action pattern and a reflex.

2 marks

Question 2

Using an example, what is meant by experience-expectant learning?

2 marks

Question 3

Dirk is a compulsive fingernail biter.

Using the language of classical conditioning describe how Dirk's doctor could use aversion therapy to extinguish his nail biting behaviour.

2 marks

Question 4

After not taking his driving practice seriously Taj fails his drivers licence test.

With reference to the three-phase model of operant conditioning, describe what Taj may do over the summer holidays to ensure he passes his drivers licence test next time.

3 marks

Question 5

After being rough with his little sister, Zach's dad has decided to use response cost to change Zach's behaviour.

Explain using an example how response cost could be used in this case.

2 marks

Question 6

Describe how Skinner used both a fixed ratio and variable ratio schedule of reinforcement for his experiments with pigeons.

2 marks

Question 7

Explain, using the language of classical conditioning, what happened to the group of rats that developed an aversion to saccharine-flavoured water in Garcia and Koelling's taste aversion experiment.

2 marks

Question 8

Jess thinks her nephew is mentally ill and has recommended that he seek help from a mental-health clinician. Explain how a mental health clinician could determine if Jess's nephew suffers from a mental illness.

2 marks

Question 9

In terms of the discrete system of classification of mental conditions and disorders, describe

- a. one strength of the discrete approach

1 mark

- b. one limitation of the discrete approach

1 mark

Question 10

Siri was a seventeen-year-old accomplished violist who had ambitions of playing professionally, both domestically and internationally. Recently, though, she had her hand partially severed as a result of a boating accident. This meant the end of her dreams of playing the violin professionally.

In accordance with Lazarus and Folkman's Transactional Model of Stress and Coping,

- a. describe a primary appraisal that Siri may form.

1 mark

- b. describe a secondary appraisal that Siri may form.

1 mark

Question 11

Dr Medulla wanted to investigate the effectiveness of meditation on the stress levels of VCE students who suffer from 'exam anxiety'.

He sent out an email to VCE coordinators in the south-eastern suburbs of Melbourne calling for students who had a history of high levels of anxiety in response to school assessment tasks.

88 students from a range of schools agreed to participate in the study.

All students were pre-tested (via a lengthy survey) to measure their level of anxiety in response to assessment tasks such as SACs and end-of-year exams.

The students then completed a week long 'meditation camp' held at Shoreham over the Easter holidays. The students were taught meditative techniques and asked to apply these practices on a nightly basis throughout the academic year.

In late October the participants were once again tested on their anxiety levels just prior to the end-of-year English exam.

- a. What is meant by the term 'meditation'?

2 marks

- b. Write an operational hypothesis for this experiment.

3 marks

- c. Dr Medulla's assistant is concerned about a potential confounding variable in this experiment.

What is meant by the term 'confounding variable'? Use an example from this experiment to illustrate your response.

2 marks

Answer one of either:

- Question 12 (Mood disorder: Major depression),
- Question 13 (Addictive disorder: Pathological gambling) or
- Question 14 (Psychotic disorder: Schizophrenia).

Question 12

Major depression

- a. State two symptoms of major depression.

2 marks

- b. Describe the role that a neurotransmitter played in the development of major depression.

2 marks

- c. Describe a form of sociocultural treatment for major depression.

2 marks

Question 13

Pathological gambling

- a.** State two symptoms of pathological gambling.

2 marks

- b.** Describe the role that a neurotransmitter played in the development of pathological gambling.

2 marks

- c.** Describe a form of sociocultural treatment for pathological gambling.

2 marks

Question 14

Schizophrenia

- a. State two symptoms of schizophrenia.

2 marks

- b. Describe the role that a neurotransmitter played in the development of schizophrenia.

2 marks

- c. Describe a form of sociocultural treatment for schizophrenia.

2 marks

END OF QUESTION AND ANSWER BOOKLET