

Trial Examination 2014

VCE Psychology Units 3&4

Written Examination

Suggested Solutions

SECTION A: MULTIPLE-CHOICE QUESTIONS

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
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62	A	B	C	D
63	A	B	C	D
64	A	B	C	D
65	A	B	C	D

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SECTION A: MULTIPLE-CHOICE QUESTIONS

Question 1 C

Gemma had to use **selective** attention when she first learned how to play the guitar because she had to concentrate on locating her fingers correctly on the strings, which in this case was a **controlled** process.

Question 2 C

According to the survival theory of sleep, the proportion of time an animal sleeps is related to maximising its chances for survival. Small, vulnerable animals, such as possums, sleep up to eighteen hours per day, as when they are asleep they are hidden from the view of their natural predators and thus are safer from attack. Large, grazing animals, such as cows, sleep as little as four hours per day because they cannot easily hide from predators and thus are most vulnerable from attack when their awareness is lowered during sleep.

Question 3 C

Delta brain waves first appear during NREM stage 3.

Question 4 D

A self-report can generate either (or both) qualitative data, e.g. an evaluation of the quality of sleep, or quantitative data, e.g. the number of hours of sleep or the number of times the individual woke during the night.

Question 5 C

Hannah would experience roughly double the normal amount of REM sleep to recover the REM debt accrued during her road trip. Thus she would experience roughly 40% the following night (given that normally 20% of her sleep would be REM sleep).

Question 6 B

Pete's EEG patterns would resemble those of a light sleep (alpha and theta brain waves).

Question 7 A

Charlotte's irritability can be best explained by her lack of REM sleep, which plays a major role in psychological restoration, as opposed to physiological restoration, which NREM sleep is largely responsible for according to the restorative theory of sleep.

Question 8 B

The left cerebral hemisphere is dominant for executive functions such as planning and organising; the other three functions listed are largely dominated by the right cerebral hemisphere.

Question 9 D

The autonomic nervous system regulates the activity of the **non-skeletal** muscles (which regulate internal organs such as the heart and are not attached to bones) and is mainly concerned with the body's **internal** environment.

Question 10 C

Damage to the frontal lobe could inhibit an individual's control of their emotion, as experienced by Phineas Gage in the nineteenth century.

Question 11 A

The **association areas** in the **parietal** lobe are responsible for visual attention, i.e. the ability to attend to visual stimuli, as evidenced by spatial neglect victims who have difficulty attending to stimuli in their environment. The occipital lobe simply detects and integrates visual information.

Question 12 D

A spatial neglect patient is typically unable to **attend to** environmental stimuli on the **left** side of their environment. For instance, visual stimuli are detected from a patient's left visual field, but the patient neglects (or ignores) the stimuli due to the impaired spatial awareness of stimuli from this side of their world.

Question 13 A

The most suitable method of data collection would be a case study, as it provides in-depth information about Sarah's aphasia that can lead to further experimental research. Surveys and interviews would not be appropriate due to her speech impairments, and a sample size of one makes an experiment inappropriate.

Question 14 C

The area of Sarah's brain affected is the left **frontal** lobe, adjacent to the **primary motor cortex**. Broca's area controls motor functions involved with speech production, enabling the generation of articulate speech.

Question 15 B

Sarah's rehabilitation has resulted in **sprouting** (the growth of new, bushier nerve fibres which enable new connections to be formed), which is a feature of **adaptive** plasticity (enabling the brain to rewire itself to compensate for lost functionality in this case).

Question 16 D

Sarah is most likely **aware** of her condition, and shortly after her stroke her sentences would be short and largely made up of **verbs and nouns**, but lacking **conjunctions** (the joining words).

Question 17 B

The visuo-spatial sketchpad is primarily a storage system of visual and spatial information. The episodic buffer is primarily a retrieval system of material from long-term memory (LTM) and the phonological loop and the visuo-spatial sketchpad are directed by the central executive.

Question 18 C

The hippocampus stores some of the declarative aspects of an incident that need to be consciously recalled while the amygdala stores the emotionality of the event. Both sides of the medial temporal lobe play a role in memory consolidation.

Question 19 B

Regularly revisiting information to be remembered slows the rate of forgetting, but the rate of forgetting is not affected by the complexity of the material learned, the intelligence of the learner or the age of the learner.

Question 20 A

Suppression of information is controlled by the central executive division of working memory, which enables an individual to block out distraction and maintain selective attention when required.

Question 21 B

Zahara is using phonemic processing, which is an acoustic form of encoding, as opposed to a shallow (visual) form of processing that merely attends to structural features of letters/words, or deep (semantic) processing, which encodes the words according to meaning.

Question 22 A

Grandpa's implicit (or procedural) memory would be least affected by age.

Question 23 C

We are consciously aware of stimuli that enters short-term memory (STM). Information in sensory (echoic) memory has not yet entered our conscious awareness. Long-term memory (LTM) is a passive system in which we retrieve information in order to utilise in STM.

Question 24 C

This means Darcy is unable to activate the appropriate node in her **LTM** in order to utilise the information in her **STM** which will enable her to respond to the question.

Question 25 B

A failure to encode information is a limitation of motivated forgetting, which can occur when an individual limits their attention when experiencing a traumatic incident. Retrieval failure relates to information that was originally encoded but cannot be accessed due to the absence of the right cue, whereas decay theory relates to information that was encoded but cannot be retrieved due to the gradual fading of the memory trace.

Question 26 A

Alzheimer's disease is caused by **amyloid** plaques **between** neurons (as well as neurofibrillary tangles within the neuron itself) resulting in damaged connections and memory decline.

Question 27 D

Alzheimer's disease results in a **gradual** decline in memory and tends to affect people **differently**.

Question 28 C

Alzheimer's disease initially affects the hippocampus, which is the brain structure largely responsible for the formation of declarative memories. Eventually the disease spreads to other parts of the brain such as the amygdala, cerebellum and motor cortex, which are responsible for procedural memory.

Question 29 C

In order to test the effects of the disease on memory, **stratified** sampling would be the most effective means of controlling the diversity of the stages of patients' conditions. Patients could be stratified according to their age, the duration of the condition (determined by initial diagnosis), etc.

Question 30 B

A matched-participants research design could be used to pair participants on age, gender, pre-existing health conditions etc., in an attempt to reduce participant-related variables. A repeated-measures design would be inappropriate given the tests are conducted comparatively between patients who were diagnosed with the condition two years ago.

Question 31 B

The presence of extraneous variables in experiments with Alzheimer's disease patients means that potentially a valid conclusion can be made of the sample used, but generalisations to the wider population of Alzheimer's disease patients are less likely.

Question 32 D

Synaptogenesis is a feature of developmental plasticity that refers to the explosion of new synaptic configurations in response to environmental stimuli.

Question 33 B

The axon acts as a conduit by conveying chemical messages away from the cell body as a result of an action potential.

Question 34 B

Godden and Baddeley's (1975) experiment demonstrated that **context**-dependent cues enhance the retrieval of information when there is a match between the **external** environment in which information is encoded and when it is subsequently retrieved.

Question 35 B

In order to remember his new password and prevent **proactive** interference, where the previous password interferes with the learning of the new password, Jack should choose a password such as **French**. This will reduce the effects of stimulus similarity which might occur with a rearrangement of the old password (3Mazza).

Question 36 A

Implicit memories are recalled without conscious effort, such as the skills required to ride a bike. The other three options are all explicit memories that must be consciously recalled.

Question 37 A

According to the restorative theory of sleep, explicit memories are consolidated during **REM** sleep.

Question 38 D

Case studies are in-depth studies conducted on either individuals or groups.

Question 39 C

The 'law of effect' relates to trial and error learning.

Question 40 C

Aversion therapy would be most suitable for overcoming Ahmed's addiction to cigarettes, by repeatedly pairing an undesirable stimulus (e.g. an electric shock) with cigarettes in order to create an association between smoking and pain, and thus conditioning avoidance.

Question 41 C

The operationalised dependent variable was the number of 'accident-free days' (the operationalised DV must specify how the variable will be measured).

Question 42 A

An independent-groups research design was used in this case: the experimental group was exposed to the independent variable (IV) (token economies), while the control group was not exposed to the IV (non-use of token economies).

Question 43 D

The use of volunteers from a social media outlet is a form of convenience sampling, as not all members of the population had an equal chance of participating.

Question 44 C

A fixed-interval schedule of reinforcement was used to obtain tokens – one token for every ‘accident-free day’.

Question 45 B

A fixed-ratio schedule of reinforcement was used to obtain the basket of lollies – one basket for every ten tokens obtained.

Question 46 D

The insignificant p value meant that the following conclusion could be made in relation to the sample tested:

‘Token economies have not significantly assisted toilet training of the young children who participated in this experiment.’

Question 47 C

In comparison to infancy, adults have **fewer** reflexes as a result of **developmental** plasticity. Neural connections for behaviours that are no longer essential for survival, e.g. the sucking reflex, are synaptically pruned.

Question 48 B

Developmental plasticity starts during utero (for example, proliferation) and finishes during early adulthood (when synaptic pruning is completed).

Question 49 A

Missing an easy volley was the antecedent condition which led to Roger hitting the ball over the fence (the operant response), resulting in disqualification and a one-month ban from tournament tennis (the consequence).

Question 50 C

The ban (the cost) resulting from hitting the ball over the fence (the response) is aimed at decreasing the targeted behaviour by removal of a stimulus (playing tournament tennis for one month).

Question 51 A

Shaping is a feature of operant conditioning which uses positive reinforcement for behaviour that successively approximates and edges towards the target behaviour. Acquisition, extinction and stimulus discrimination are all applications of both classical and operant conditioning.

Question 52 A

The desire for Ally to learn how to perform a complex dive demonstrated by her diving coach determines the likelihood that she will attend to and observe distinctive features of the dive.

Question 53 C

The DSM-5 uses a discrete categorical approach to the classification of a mental condition. It has a higher inter-rater reliability than the dimensional (graded and transitional) approach.

Question 54 D

Cortisol is a stress hormone released by the adrenal gland which is helpful in the short-term for dealing with stressors, but can lead to allostatic load (potentially allostatic overload) that can be harmful to the body if high levels linger in the bloodstream.

Question 55 C

The adrenal gland releases the stress hormone noradrenaline when the body is under threat. This triggers an increase in blood pressure and assists an individual's response to a stressor.

Question 56 B

Hannah's heart rate would have **rapidly** accelerated when she was first woken so that she can almost instantaneously deal with the threat. The parasympathetic nervous system would then **gradually** return the heart rate to normal once she realised that she was no longer under threat.

Question 57 A

Hannah's digestion would be suppressed so that essential resources which are required for survival are diverted elsewhere in order to maximise her chances for survival, e.g. increasing physiological responses such as respiration rate, glucose levels and sweat gland secretion.

Question 58 B

Physical exercise **releases** beta endorphins which **reduce** pain sensations and can promote psychological well-being.

Question 59 D

Allostasis can be described as a process of achieving **stability** through behavioural and physiological **change**.

Question 60 B

Drew's anxiety was an example of **distress**, which is a **negative psychological** response to a stressor.

Question 61 A

Drew's allostatic response would have been activated and then switched off by his **autonomic** nervous system. The allostatic response would have been activated by the sympathetic nervous system and then switched off by the parasympathetic nervous system after the threat had subsided.

Question 62 B

Meditation is an emotion-based coping method for dealing with the stressor, as it simply tries to reduce the emotions linked to the stressor. The other three strategies all attempt to manage the source of the stressor and seek to control it and thus are examples of problem-based coping strategies.

Question 63 B

When making a secondary appraisal, Drew endeavours to work out how he can best deal with the situation and change undesirable conditions by evaluating his external and internal coping options. The other three alternatives are all examples of primary appraisals as they all evaluate the significance of the stressor.

Question 64 C

A dimensional approach classifies a mental condition based on the severity of a cluster of symptoms rather than diagnostically categorising a disorder (as with the discrete categorical approach – DSM-5 and ICD-10). Therefore labelling/stereotyping is less likely to occur (than with the categorical method); i.e. rather than being labelled as suffering from a mental disorder, a person will be typically identified as having ‘extreme and maladaptive variants’ in personality traits, because, for instance, we all have degrees of anxiety.

Question 65 D

Appraisal support involves a third party which helps an individual gain an understanding of a stressor and provides coping strategies as a form of social support for coping with stress.

SECTION B – SHORT ANSWER QUESTIONS

Question 1

A controlled process is a task that requires a lot of mental effort to undertake, e.g. solving a difficult maths problem.

An automatic process is a task that is completed with only minimal mental effort, e.g. walking to the gym after recess.

2 marks

1 mark for each point made

Question 2

Alcohol could adversely affect Tara’s ability to focus attention (shortened attention span) OR process information (impaired thinking) OR store memories (alcohol impairs memory) OR make sound decisions/ have problem-solving difficulties.

1 mark

1 mark for any point made

Question 3

- The galvanic skin response (GSR) measures the electrical conductivity of the skin.
- GSR readings would be higher during REM sleep (than NREM sleep) due to the higher level of internal physiological functioning which occurs during REM sleep.
- The EMG would detect, amplify and record a
- lower level of electrical activity of the muscles during REM sleep (due to REM paralysis).

4 marks

*1 mark for each point made***Question 4**

Delayed sleep phase onset is typically a condition first experienced during adolescence. As a person experiencing this, Walter would be having difficulty in going to sleep when he desires and corresponding difficulties waking up at a required time the next day (during school term).

Apart from a change in his body clock shifting forward by 1–2 hours, which delays the release of melatonin, it is often caused by staying up late on the weekend and then sleeping in to recover the sleep debt, which alters the body clock.

2 marks

*1 mark for each point made***Question 5**

Using a tachistoscope, the split-brain patients might be asked to stare at a fixed point on a screen and then images could be flashed to either the left or right visual field.

If the patient is able to name objects flashed to the right visual field and unable to name objects flashed to their left visual field, then the left hemisphere is the dominant for speech (or vice versa).

3 marks

*1 mark for discussing the test (use of the device)**1 mark for discussion of the cognitive process**1 mark for discussing the conclusion***Question 6**

The mean (average) is a descriptive statistic that merely summarises data (for the control and experimental groups in this case). No statistical conclusions can be made from this measure of central tendency.

The p -value is an inferential statistic that determines the probability that results are due to chance, thus enabling statistical conclusions to be made and inferences about the implications of the results can be obtained.

2 marks

*1 mark for each point***Question 7**

The hands have a higher cortical representation than other body parts, such as elbows.

The hands are more capable of fine motor movements and thus occupy a higher proportional area of the primary motor cortex.

2 marks

1 mark for each point

Question 8

Acrostics are mnemonic devices which involve taking the **first letter** of a series of words/sentences that you are trying to remember, e.g. remembering the G clef notes on a music sheet (E, G, B, D, F), and then **encoding** those letters in a manner that forms a phrase, e.g. Every Good Boy Deserves Fruit.

When this information needs to be **retrieved** the phrase is recalled, which cues the memory of the order of the items to be remembered.

3 marks

*1 mark for an explanation of acrostics**1 mark for a suitable example that explains the encoding process**1 mark for explaining the retrieval process***Question 9**

- First, Ruby's **sensory** memory needs to register the sounds (the teacher talking) and visions (the board work).
- She will need to pay **attention** to this auditory/visual information to move it to **STM**, where it can be actively 'worked on'.
- Then, in order to transfer it to **LTM**, it will need to be **encoded** (via elaborative rehearsal) for storage.
- Finally, during the exam the information will need to be retrieved from **LTM** via cues (which activate the appropriate nodes in the semantic network) in order to put this information in **STM** for use.

4 marks

*1 mark for each point made, which must refer to relevant memory store***Question 10**

- a. Georgia may have initially learned how to stream videos in 20 minutes, then relearned how to do it in 12 minutes the following year.

Using the savings score formula: $\frac{(\text{time for original learning} - \text{time for relearning})}{\text{time for original learning}}$

$$\frac{(20 \text{ min} - 12 \text{ min})}{20 \text{ min}} = \text{savings score of } \frac{8}{20} \text{ or } 40\%$$

3 marks

*1 mark for example**1 mark for formula (this could use either time or number of trials)**1 mark for calculation*

- b. The use of the savings score for relearning most accurately gauges the amount of information retained in LTM.

1 mark

Question 11

Dendrites function like antennae; they are the branched projections of a neuron that receive input (electrochemical stimulation) from other neural cells and send these to the cell body, or soma.

In memory formation, **dendrites become bushier** (more spines), thus enabling more synapses, or more synaptic connections (in effect, more storage space). When memories are retrieved, the functional and structural changes are further strengthened.

2 marks

*1 mark for function**1 mark for how they change in memory formation*

Question 12

- Manisha may have been influenced by the **leading question**, which suggests that the adolescent did throw the first punch.
- This may have led to a **false reconstruction** of her memory of the fight,
- as Manisha may incorporate the information from the leading question with abstract features of the fight that she stored in her memory.

3 marks

*1 mark for each point made***Question 13**

- a. The salmon are demonstrating an inborn predisposition to behave in a certain way in response to a specific environmental stimulus that is characteristic of a particular species.

1 mark

- b. Fixed-action patterns (FAPs) tend to be complex behaviours, e.g. salmon swimming upstream to spawn. Reflexes are simple behaviours, e.g. eye blink.

OR

FAPs are species-specific, whereas many species produce the same/similar reflexes.

1 mark

1 mark for either point

- c. Humans have fewer instinctive behaviors: learning and free will are more likely to influence behaviour.

1 mark

Question 14

A confounding variable is a variable that systematically affects the dependent variable (DV) throughout the experiment.

An example of this is an order effect for a repeated-measures design that has not been counterbalanced. This would mean that the impact of the order of testing has been confused with the IV in terms of determining its impact on the DV.

2 marks

*1 mark for explanation**1 mark for example***Question 15**

The learner is passive for classical conditioning (e.g. in Pavlov's experiment, the dog did not have to consciously respond to the CS (bell) – the CR is reflexively elicited).

The learner is active for operant conditioning (e.g. a driver chooses to slow down when they see a 40 km/h sign flashing in a school zone in order to avoid a fine).

2 marks

1 mark for each point made

Question 16

Extinction:

- The bell (CS) is presented to the dog without the meat (UCS) approximately six times
- until the dog no longer salivates (CR)

Spontaneous recovery:

- After a rest period, the bell (CS) is once again presented without the meat (UCS)
- and the dog once again salivates (CR).

4 marks

1 mark for each dot point made, which must clearly identify the CS, UCS, CR (where appropriate)

Question 17

- a. The **consequences** applied affect the learning; behaviour that is followed by desirable consequences will most likely be repeated and behaviour that is followed by undesirable consequences is less likely to be repeated.

1 mark

- b. In operant conditioning, the consequences are **directly** applied to the learner (e.g. the driver is fined for speeding); while in observational learning, the consequences are **indirectly** or vicariously learned (e.g. a passenger sees the driver fined for speeding and learns the association between the behaviour and consequence – speeding can lead to fines).

1 mark

Question 18

'Timing of experience' refers to periods of development in which the brain is most malleable for establishment of neural connections and skill development as a result of environmental interaction.

Critical periods:

- They start and end abruptly; if the learner is not exposed to the environmental stimuli during the critical period then they will never fully develop the relevant skill.
- For example, the visual pathways of the brain require exposure to light during infancy in order to fully develop visual capabilities (as demonstrated by Hubel and Wiesel in their experiments with kittens).

Sensitive periods:

- They start and end gradually; if the learner is not exposed to the environmental stimuli during the sensitive period they can still develop the skill, but the process will be less efficient.
- For example, the sensitive period for developing a second language is during childhood. An adult can master a second language but the process will take longer and be less efficient than a young child who is exposed to a second language.

4 marks

1 mark for each explanation and 1 mark for each example

Question 19

This is a feature of **debriefing** at the conclusion of the experiment.

1 mark

Question 20

- a. May would be considered mentally ill by Auntie June (her mental health clinician) if her psychological condition significantly interferes with her cognitive, emotional and social abilities. 1 mark
- b. The biopsychosocial framework looks at the **interaction** of the **biological, sociocultural and psychological** influences in the diagnosis of a mental illness and its management. 2 marks
- 1 mark for identifying the interaction*
1 mark for identifying each of the three elements

Question 21

- a.
- Allostatic load refers to the cumulative cost to the body of allostasis, which can occur due to continuous activation of the fight-flight response; in this instance, whilst Raj is dealing with his marriage break-up.
 - This results in excessive energy consumption during high-stress times, e.g. during social conflict or other types of social dysfunction, which can diminish the effectiveness of the allostatic response.
 - Stress hormones will continue to be released whilst the body is under stress, but Raj's immune system will work less effectively.
 - This can result in decreased efficiency in the initiation (and potential early termination) of the allostatic response.
- 3 marks
1 mark for any three of the above points
- b. Raj has deemed the marriage break-up as significant and thus he may evaluate the:
- **harm/loss** that has occurred in terms of his emotional state
 - **threats** – the potential harm to his financial situation
 - **challenges** – how he can learn and gain confidence from this experience
- 2 marks
1 mark for identifying the primary appraisal
1 mark for an appropriately linked response to the scenario
- Note: Insignificant is not accepted based on the information in the question – benign-positive is acceptable.*

Question 22

Biofeedback is a process that enables an individual to learn how to change physiological activity for the purposes of improving health and performance. This is done via the use of precise instruments that measure autonomic physiological responses which indicate a level of stress, such as heart rate.

The presentation of this information – often in conjunction with changes in thinking, emotions, and behaviour – supports desired physiological changes which enable the user to eventually manage the cause of the undesirable response to stress. For example, altering blood flow or muscle tension reduces the effects of the stress by helping to prevent high blood pressure or migraines, thus assisting the user in managing the stress better.

- 2 marks
1 mark for discussing the use of the instruments
1 mark for discussing the manner in which the user learns to control physiological responses linked to stress

SECTION C – RESEARCH SCENARIO

Question 1

- The control group was the class taught in room S4.
- They served as a baseline measure of comparison to the class taught in V8 (the experimental group).

2 marks

1 mark for each point

Question 2

- An extraneous variable is any variable other than the IV that may affect the DV.
- For example, a placebo effect, in which the expectations of the two classes may affect the DV (or any other suitable explanation, e.g. an experimenter effect, non-standardised instructions, participant-related differences such as study habits, situational variables, etc.).

2 marks

1 mark for each point

Question 3

It is important in order to protect the rights and the welfare of participants.

1 mark

Question 4

- It was hypothesised that context-dependent cues for VCE students will assist in their examination performance.
- Operationalised IV: the use of context-dependent cues in the form of being examined in the same room as that in which the learning took place.
- Operationalised DV: the comparison of the predicted score (based on the intelligence test) and the semester 1 examination score.
- Convenience sampling was used by accessing students from two Units 1&2 VCE Psychology classes from Waratah Secondary College.

Note: Random or stratified sampling could also be used; students will need to briefly explain these procedures.

- An independent-groups research design was used, in which the two classes were non-randomly assigned to either the control group (the class in room V8) or the experimental group (the class in room S4).

Note: A matched-participants design could be employed (the matching process would need to be described) or a repeated-measures design could be employed (with an explanation of the exposure to the IV and control condition for comparison purposes, which is ideally counterbalanced.)

- Each student completed a GAT-like intelligence test prior to the commencement of the school year to establish predicted exam scores. These scores were averaged.

Note: This point was added to assist with the explanation of how the DV could be measured, thus other alternatives could also be considered.

- Each class was taught the course content in their respective classes for the semester.
- Then, at the end of the semester, both classes were examined in room V8; thus the experimental group was examined in the same room as they learned the content in and could use context-dependent cues (e.g. some of the props or furniture in the room). The control group did not have access to these context-dependent cues as the external environment in which they were tested did not match the external environment in which they encoded the content covered.
- The exam performance scores for both classes were then collated and averaged.

Note: This point further explains how the DV will be measured, thus other explanations could also be considered.

- A comparison was made between the predicted scores and actual scores for both classes and the statistical significance (p -value) was then calculated.

Note: This point explains how the statistical significance could be determined, thus alternative explanations could also be considered.

10 marks

Marking grid

Very high (9–10 marks)

- *accurate hypothesis which included the IV, DV and population; IV and DV was fully operationalised (separately)*
- *detailed discussion of sampling procedures*
- *detailed discussion of procedure and research design employed*

High (7–8 marks)

- *accurate hypothesis which included the IV, DV and population; IV and DV was fully operationalised (separately)*
- *thorough (incomplete) discussion of sampling procedures*
- *thorough (incomplete) discussion of procedure and research design employed*

Medium (5–6 marks)

- *hypothesis which included some information about the IV, DV and population; either the IV or DV was fully operationalised (separately)*
- *some discussion of sampling procedures*
- *some discussion of procedure and research design employed*

Low (3–4 marks)

- *hypothesis which included limited information about the IV, DV and population; either the IV or DV was fully operationalised (separately)*
- *limited discussion of sampling procedures*
- *limited discussion of procedure and research design employed*

Very low (0–2 marks)

- *hypothesis lacked appropriate information about IV, DV and population; failure to operationalise the IV and DV*
- *limited, if any, discussion of sampling procedures*
- *limited, if any, discussion of procedure and research design employed*