



NAME: _____

Units 3 & 4 Practice Examination

VCE®PSYCHOLOGY

Reading time: 15 minutes

Writing time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

<i>Section</i>	<i>Number of questions</i>	<i>No of questions to be answered</i>	<i>Marks</i>
A	65	65	65
B	19	19	60
C	4	4	15
		Total	140

- 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 or calculators.

Materials supplied

- Question and answer book of 45 pages.
- Answer sheet for multiple-choice questions.
- Additional space is available at the end of the book if you need extra paper to complete an answer.

Instructions

- Write your **name** in the space provided above on this page.
- Write your **name** 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 book.

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

Marcus is completing a practice exam to help him prepare for his VCE Psychology exam. He finds most of the questions very complex because he has not done much work in preparation for the practice exam. For Marcus, completing this exam is most likely a(n)

- A. automatic process
- B. controlled process
- C. selective attention process
- D. divided attention process.

Question 2

It is typical for people to progress through 4-5 sleep cycles per night. As the night progresses, people typically spend

- A. more time in NREM sleep
- B. more time in REM sleep
- C. less time in REM sleep
- D. the same amount of time in REM and NREM sleep; sleep cycle patterns remain constant throughout the night.

Question 3

Jan is studying two languages at University; French and Italian. She studied over the weekend for an Italian test to be held on Monday. On the morning of the test Jan also spent time studying Italian before going to her French tutorial class. Immediately after this was her Italian class in which she sat her Italian test. Which of the following scenarios demonstrates retroactive interference occurring for Jan?

Which of the following scenarios demonstrates retroactive interference occurring for Jan?

- A. The new information learnt in the French class inhibits retrieval of the information she had learnt in the morning for her Italian test.
- B. The new information learnt in the French class inhibits encoding and storage of the information she had learnt in the morning for her Italian test.
- C. She is unable to access the information she had learnt in the morning for her Italian test because the French class has made her confused.
- D. She is unable to access the information she had learnt in the morning for her Italian test because she only has French information in her STM now.

Question 4

Jarvis was very nervous on Sunday night because he had a test the following day. This made it difficult for him to sleep and he woke up in the morning feeling very sleep deprived. Not only did he have a test that day but he had also agreed to help his mother fold letters and put them in envelopes because she was doing a fundraising mailout. What would his performance most likely be on the two tasks?

- A. Jarvis's performance on the test would be affected by the sleep deprivation, as would the simple task of helping his mother.
- B. Jarvis's performance on the test wouldn't be affected by the sleep deprivation, whereas the simple task of helping his mother would seem difficult.
- C. Jarvis's performance on the test wouldn't be affected by the sleep deprivation, and neither would the simple task of helping his mother.
- D. Jarvis would excel at both tasks after a night of sleep deprivation.

Question 5

Davis sustained a head injury in a car accident. Since the accident his speech has been very slow and laboured and his family and friends find it difficult to understand what he is trying to say. However, Davis clearly understands what his friends and family are saying to him. He is most likely experiencing

- A. tip-of-the-tongue phenomenon
- B. Wernicke's aphasia
- C. Broca's aphasia
- D. spatial neglect.

Question 6

Eighty-six year-old Marvin has recently suffered a stroke. When his daughter arrives at the hospital to visit him, Marvin does not recognise her. Which area of Marvin's brain has most likely been damaged causing this effect?

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

Use the following information to answer Questions 7-11.

A new drug, Wondersleep, has been designed to enhance the quality of sleep. Its' effectiveness is being tested by researchers from the Brain University. To gather participants for the study, the researchers place an advertisement on the university website asking students to participate. Once they have gathered their sample of students, they allocate participants to two groups, Group A or Group B. In the first week of the study, Group A are administered Wondersleep while Group B are administered a placebo. The following week, Group A are administered the placebo and Group B are administered Wondersleep. All participants rated their quality of sleep each night. The researchers conducted a test of significance on the mean ratings for the two groups and achieved a significance level of $p=0.07$.

Question 7

The experimental design used by the researchers is a(n)

- A. random allocation design
- B. repeated-measures design
- C. independent groups design
- D. matched participants design.

Question 8

Counterbalancing is used in this experiment to control for

- A. participant attrition
- B. practice effects
- C. order effects
- D. placebo effect.

Question 9

The researchers in the study used a single-blind procedure because

- A. both participants and researchers were unaware of which condition of the experiment the participants were being exposed to
- B. only the researchers were unaware of which condition of the experiment the participants were being exposed to
- C. only the participants were unaware of which condition of the experiment they were being exposed to
- D. both participants and researchers were aware of both conditions of the experiment that the participants were being exposed to.

Question 10

Based on the significance level, the researchers could

- A. accept the hypothesis that the Wondersleep drug improved sleep quality
- B. reject the hypothesis that the Wondersleep drug improved sleep quality
- C. generalise the findings to other members of the population
- D. rule out the effects of uncontrolled extraneous variables.

Question 11

Participants were given the contact details of local support services if they appeared to be suffering any distress after participating in the study. By doing this, the researchers were fulfilling the ethical principle of

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

Question 12

Hillary is at home relaxing on the couch watching her favourite television show. The area of her peripheral nervous system that would be active at this time is the

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

Question 13

Yajie has just completed the '40 hour famine' to raise funds for a charity organisation. She chose to give up sleep for 40 hours. As a result she is feeling very tired due to the sleep deprivation and she can hardly wait to go to bed in the evening. Her body's natural sleep recovery process will most likely involve

- A. spending the following week sleeping an additional four hours each night
- B. spending the following few days sleeping an additional two hours each night
- C. returning to her normal sleep pattern; her body doesn't need to catch up on any missed sleep
- D. spending the following day and night sleeping.

Question 14

After a particularly tough football match, Mark sustained a broken finger and a severely bruised thigh. He noticed that the pain in his finger was far more intense than the pain caused by the bruise to his thigh. This is most likely because the finger is a more sensitive body part than the thigh as it has more cortical area devoted to it in the

- A. autonomic nervous system
- B. somatosensory cortex
- C. association cortex
- D. primary cortex.

Question 15

Mary met her husband's family at Christmas. To help her remember people's names, Mary tried to link them to something she already knows. For example, to remember Uncle Bill she thinks of her favourite singer, Bill Whithers. According to the Atkinson and Shiffrin Multi Store Model of Memory, Mary is using

- A. maintenance rehearsal to retain this information in her short-term memory
- B. elaborative rehearsal to encode this information to long term memory
- C. attention so that this information is processed in her working memory
- D. maintenance rehearsal to encode this information to her long-term memory.

Question 16

During a class experiment, Mrs Mac presented a word on a screen to her class for 3 seconds and then asked them a question about the word, such as, "Is the word in italics?". According to Craik and Lockhart's Levels of Processing Theory, this question is an example of

- A. shallow processing
- B. intermediate processing
- C. deep processing
- D. semantic processing.

Question 17

According to the Semantic Network Theory

- A. long-term memory is activated by nodes that link it to short-term memory
- B. information is retrieved by an extensive search through the limitless information stores in long-term memory
- C. long-term memory is organised hierarchically so that when nodes are activated to retrieve information, other related nodes are also activated
- D. long-term memory is a complex area that consists of a network of semantic ideas.

Use the following information to answer Questions 18-19.

Dr Dokic wants to investigate whether Year 12 students in private schools experience more stress than those in public schools. To collect data for his study, participants use a rating scale to indicate their stress levels at different times throughout the school year.

Question 18

In Dr Dokic's experiment, the Independent Variable (IV) and Dependent Variable (DV) were

- A. IV: stress levels; DV: private school
- B. IV: stress levels; DV: public school
- C. IV: type of school; DV: stress levels
- D. IV: stress levels; DV: type of school.

Question 19

In Dr Dokic's experiment, the method that he used for data collection was a

- A. case study using fixed-response questions
- B. case study using free-response questions
- C. self-report using fixed-response questions
- D. self-report using free-response questions.

Question 20

Meral is describing her wedding day to her grandchildren. In order to do this she is using her

- A. episodic memory
- B. semantic memory
- C. short term memory
- D. procedural memory.

Question 21

Harry slipped over while ice-skating and hit his head on the ice during the fall. Since then he has been unable to recall what occurred in the lead-up to the accident. This is an example of

- A. anterograde amnesia
- B. retrograde amnesia
- C. dementia
- D. interference theory.

Question 22

Manisha grew up in Germany, however, she moved to Australia when she was nine years old to live with her Aunt. She has no memories of living in Germany. Manisha is now 62 years old and is travelling back to Germany for the first time. Upon her arrival at her hometown village, the memories of her childhood there begin flooding back. This is an example of

- A. the tip-of-the tongue phenomenon
- B. context-dependent cues**
- C. state-dependent cues
- D. retrieval failure theory.

Question 23

According to Baddeley and Hitch's model of working memory, the role of the episodic buffer is

- A. to store auditory information and make sense of what we hear
- B. to store visual information
- C. to retrieve information from LTM and associate it with information in the working memory
- D. to control and change attention and integrate, update and modify information.**

Question 24

Adrian has a six month old daughter, Ava. He wants Ava to start crawling, so every morning as she sits on her play mat he demonstrates to her how she should crawl. She giggles at him but makes no attempt to copy his behaviour. This is because crawling is an example of

- A. a reflex action
- B. a fixed-action pattern**
- C. maturation
- D. a behaviour dependent on learning.

Question 25

A sensitive period

- A. is the brain's ability to change in structure and function across the lifespan
- B. allows for sprouting and rerouting to occur following brain damage
- C. is a time in development when the brain is particularly adaptive and neural pathways are easily formed
- D. is a time in development where deprivation has the least impact.

Use the following information to answer Questions 26-28

Anne's dog, Pippa, loves to go for walks. Pippa knows that when she is put on a leash she will be going for a walk. Anne keeps Pippa's leash in her bag and usually has to rummage through her bag to find it. Pippa now becomes very excited whenever she sees Anne rummaging through her bag and runs to the door expectantly.

Question 26

Pippa's learning could best be described as classical conditioning. Which of the following is the neutral stimulus (NS)?

- A. walks
- B. the leash
- C. the bag
- D. Anne rummaging through her bag.

Question 27

Which of the following is the conditioned response (CR)?

- A. Anne rummaging through her bag.
- B. Pippa going for a walk.
- C. Pippa running to the door.
- D. Pippa being put on the leash.

Question 28

Once a week Anne plays tennis and uses a sports bag rather than her regular bag. Pippa does not respond at all when she seen Anne rummaging through her sports bag for her keys. This is an example of

- A. stimulus generalisation
- B. stimulus discrimination
- C. extinction
- D. spontaneous recovery.

Question 29

A token economy would involve being allocated

- A. a reward for exhibiting desirable behaviour
- B. tokens, for exhibiting desirable behaviour, that can later be changed for a reward
- C. money for exhibiting desirable behaviour
- D. tokens for exhibiting desirable behaviour.

Question 30

Nico has been struggling with alcoholism since he was 19 years old. Having tried many times to quit, all being unsuccessful, Nico's outreach worker suggests he try aversion therapy which would involve repeatedly pairing alcohol and antabuse (a drug that when paired with alcohol will lead to feelings of nausea that mimic a terrible hangover). Identify the unconditioned stimulus (UCS) and the unconditioned response (UCR) involved in this process

- A. UCS; antabuse, UCR; nausea
- B. UCS; nausea, UCR: antabuse
- C. UCS; alcohol; UCR; nausea
- D. UCS; nausea, UCR: alcohol.

Question 31

Aise sustained damage to her head during a skiing accident. As a result of the injury she is still able to see, yet cannot process the visual stimuli she is exposed to. The area of her brain that has most likely sustained damage is the

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

Question 32

People suffering from Alzheimer's disease display particular brain characteristics including

- A. amyloid plaques, neurofibrillary tangles, reduced levels of the neurotransmitter, adrenaline
- B. amyloid plaques, neurofibrillary tangles, an increase in brain cells
- C. amyloid plaques, neurofibrillary tangles, increased levels of the neurotransmitter, acetylcholine
- D. amyloid plaques, neurofibrillary tangles, reduced levels of the neurotransmitter, acetylcholine.

Question 33

One of the major strengths of the DSM-IV is that it

- A. specifies the cause of the mental disorder
- B. provides the psychologist with the various treatments that can be used to manage the disorder
- C. assists in identifying and classifying symptoms of a disorder
- D. is useful for diagnosing both physical and mental illness.

Question 34

James has been homeless since 1992, he suffers from depression and has battled alcohol and drug addiction over the years. He has been in and out of prison a number of times. Which of the following aspect of James' life would have acted as a social factor in contributing to his mental illness?

- A. homelessness
- B. depression
- C. alcohol addiction
- D. drug addiction.

Question 35

The fight-or-flight response is triggered by the

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

Question 36

Meg recently broke up with her partner of eight years and moved back in to live with her sick mother. Her employer felt she was taking too many days off work to look after her mother and fired Meg. As a result of the continued stress in Meg's life, it is likely that she could

- A. experience allostatic overload and develop a serious illness
- B. experience homeostatic overload and develop a serious illness
- C. experience allostatic overload because of reduced levels of adrenalin and cortisol
- D. experience homeostatic overload because of reduced levels of adrenalin and cortisol.

Question 37

Shakaya passed her driving test on her the third attempt. She was very relieved and the feeling she most likely experienced was

- A. eustress
- B. distress
- C. allostasis
- D. homeostasis.

Question 38

Dylan is a circus trainer and works with animals. His role is to train new animals arriving at the circus to perform different ‘tricks’. His latest animal is a tiger, which he needs to train to do a somersault. The most effective method for training the tiger would be

- A. trial and error learning
- B. use of a token economy with the tiger
- C. shaping
- D. observational learning; Dylan should demonstrate to the tiger how to somersault.

Question 39

Jasmine is complaining to her mother that she can’t remember the order of compass bearings. Her mother says to her ‘Never Eat Soggy Wheetbix!’ This is an example of the mnemonic device known as a(n)

- A. acrostic
- B. acronym
- C. narrative chaining
- D. peg-word mnemonic.

Question 40

According to the decay theory

- A. older people have more difficulty recalling information than younger people because their memories decay as they age
- B. the memory trace weakens over time when it is not used
- C. memory traces decay over time even if they are reactivated regularly
- D. neurotransmitters decay over time which leads to a decaying memory trace.

Question 41

Mrs Carp gave her year 12 Psychology class a list of nonsense syllables to learn at the beginning of a lesson. Throughout the lesson and over the following week, Mrs Carp repeatedly tested her students on their recall of the nonsense syllables. She found that her results were very similar to the findings demonstrated by Ebbinghaus's work on forgetting showing that

- A. more than half of the learned information was forgotten in the first 20 minutes
- B. all of the information was lost after one week
- C. most information was retained in the first hour and then rapidly declined after this time
- D. more than half of the learned information was forgotten in the first hour.

Use the following information to answer Questions 42-45

Professor Rajah works in a sleep laboratory. He collects a sample of participants for a study on sleep patterns and the participants are required to sleep over night in the laboratory to have their physiological responses monitored. After monitoring the participants he asks one in particular, Participant Z, to participate in further research because of such unusual sleep patterns. He asks Participant Z to keep a sleep diary for the following month and completes further sleep tests on her in the laboratory.

Question 42

One of the physiological measures used was to monitor the core body temperature. This measure would most likely show that body temperature

- A. remains constant while we are asleep
- B. can increase by more than 1°C while we are asleep
- C. can decrease by more than 1°C while we are asleep
- D. decreases to below 30°C while we are asleep.

Question 43

One of the disadvantages of using a sleep laboratory to collect data is

- A. the data that is collected is objective making it subject to the interpretation of researchers
- B. the environment is artificial making it difficult for participants to behave as they would at home
- C. the data that is collected is subjective making it subject to the interpretation of researchers
- D. the data gathered is qualitative so is difficult to interpret.

Question 44

Professor Rajah wanted to further study the sleep patterns of Participant Z because her sleep patterns were atypical. By using a sleep diary, he gathered data that was mainly

- A. quantitative and subjective
- B. quantitative and objective
- C. qualitative and subjective
- D. qualitative and objective.

Question 45

By further investigating the sleep patterns of Participant Z, Professor Rajah was carrying out a case study. A major disadvantage of case studies is

- A. participant behaviour may be changed by the environment
- B. findings cannot be generalised
- C. they are very expensive and complex
- D. large numbers of participants are needed.

Question 46

Lin sustained damage to her brain and since this time has found it difficult to recognise the emotions that other people are experiencing. The part of her brain that has been damaged most likely causing this problem is her

- A. occipital lobe
- B. somatosensory cortex
- C. hippocampus
- D. amygdale.

Question 47

Identify the three main components of a neuron.

- A. Neurotransmitter, soma, synapse
- B. Soma, axon, synapse
- C. Dendrite, soma, axon
- D. Synapse, dendrite, soma.

Question 48

When a new memory is formed

- A. the brain becomes larger
- B. the axons and dendrites join allowing the transfer of a neurotransmitter
- C. synaptic connections are strengthened
- D. neurons become deactivated.

Question 49

Harry is a healthy 70-year-old man who has no brain disease or injury. Choose the statement that best describes his memory abilities.

- A. He has joined a book club but cannot remember much about the weekly meetings.
- B. He is just as likely as a young person to recognise newly learnt information.
- C. He finds it very difficult to remember how to do activities he once enjoyed.
- D. He is likely to forget factual information that he once knew well.

Question 50

In the weeks following Jackie's grandmothers' death, Jackie became very withdrawn and quiet. She stopped socialising and talking on the telephone too. More recently she has begun socialising again, although still feels low at times. It is most likely that Jackie is experiencing

- A. a major mood disorder
- B. a mental illness
- C. a mental health problem
- D. an anxiety disorder.

Question 51

Sally wanted to investigate the effect that music had on memory. She used a matched participants' design for her study.

A matched participant design was most likely used by Sally

- A. so that the procedure could be done all at once
- B. to control for the potential confounding variable of memory ability
- C. because she had a limited number of participants
- D. to overcome the potential confounding variable of order effects.

Use the following information to answer Questions 52-53.

Research has been conducted extensively on theories of learning. One of the first classic research studies conducted was that of John Watson on 'Little Albert' who was conditioned to fear a white rat. Later he also showed fear responses to similar stimuli including a rabbit, a dog, a Santa Claus mask and a fur coat.

Question 52

Little Albert's fear of the items presented later is

- A. stimulus discrimination
- B. extinction
- C. spontaneous recovery
- D. stimulus generalisation.

Question 53

Many ethical breaches occurred in John Watson's research. It was suggested that 'Little Albert's' mother wasn't made fully aware of the purpose of the experiment. The ethical issue that would have been breached in this instance is

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

Question 54

Jamelia was driving home from work and called up her mother to have a chat. The police pulled Jamelia over and she was given a \$450 fine and lost three demerit points from her licence for breaking the law.

This is an example of

- A. positive punishment
- B. negative reinforcement
- C. token economy
- D. response cost.

Question 55

Steve's mother has asked him to keep his room clean. If it is clean he will receive his pocket money. She does an inspection every Sunday morning but notices that his room is messy all week until he does a quick clean-up on Saturday night. To overcome this problem, Steve's mother now tells him that she will check his room one day each week, but it could be any day of the week and as long as his room is clean, he will still receive his pocket money. Respectively, the schedules of reinforcement that Steve's mother was using were

- A. variable interval; fixed interval
- B. fixed interval; variable interval
- C. fixed interval; fixed ratio
- D. fixed interval; variable ratio.

Question 56

For classical conditioning to be effective

- A. the timing of the two stimuli should be half a second apart
- B. the timing of the two stimuli should be 4 seconds apart
- C. the CS must occur after the UCS
- D. the NS must occur after the UCS.

Question 57

In observational learning the likelihood of a person repeating a modelled behaviour is increased by

- A. the learner being passive
- B. the similarity of the model to the observer
- C. the differences between the model and the observer
- D. the self-esteem and confidence of the model.

Question 58

Cherie has been experiencing stress at her workplace. She visits a psychologist who recommends that she use biofeedback as a strategy to control her stress response. Biofeedback involves

- A. an individual altering their state of consciousness by focusing inwards
- B. an individual learning to control physiological responses
- C. an individual exercising to encourage the release of stress hormones
- D. an individual taking medication and monitoring its effects to ease the stress response.

Question 59

Research has consistently shown that STM

- A. has a duration of up to 45 seconds
- B. has a capacity of only 7 items
- C. can have an increased capacity by chunking information
- D. can have an increased duration by chunking information.

Question 60

Using a sleep laboratory to monitor sleep patterns, it would be apparent if someone was in REM sleep because they are experiencing rapid eye movement. The device that would indicate this would be an

- A. EEG
- B. ECG
- C. EMG
- D. EOG.

Question 61

After Bob suffered from a stroke, he could no longer remember how to swim, which was something that he had previously done on a daily basis. The area of his brain that was damaged was most likely his

- A. corpus callosum
- B. parietal lobe
- C. occipital lobe
- D. temporal lobe.

Question 62

The difference between adaptive and developmental plasticity is

- A. developmental plasticity occurs with maturation whereas adaptive plasticity occurs when compensating for lost function and the consequences of everyday experience
- B. adaptive plasticity occurs with maturation whereas developmental plasticity occurs when compensating for lost function and the consequences of everyday experience
- C. developmental plasticity is only present in infancy and adaptive plasticity is only evident in later life
- D. adaptive plasticity is only present in infancy and developmental plasticity is only evident in later life.

Use the following information to answer Questions 63-65.

Jack is about to have an interview for a new job. Currently, he has a job that he is very unhappy with and he is desperate to change jobs. The upcoming interview is for a job that he would love to do.

Question 63

According to Lazarus and Folkman's transactional model of stress and coping, the primary appraisal for Jack would most likely be

- A. irrelevant
- B. benign - neutral
- C. stressful
- D. negative.

Question 64

Jack has spent a considerable amount of time preparing for the interview. According to Lazarus and Folkman, this is an example of

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

Question 65

One criticism of Lazarus and Folkman's transactional model of stress and coping is that

- A. it focuses on the psychological response to stress rather than the physiological response
- B. the model is a too simplified version of how the stress response actually occurs
- C. the stress response is impossible to measure objectively
- D. the unique nature of the stress response makes it difficult to test through experimental research.

SECTION B – Short answer questions**Instructions for Section B**

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

Question 1 (2 marks)

Lisa has recently turned 18 and decided to have a party to celebrate her birthday. She consumed three glasses of wine before any of her guests arrived. Lisa had never consumed alcohol before and became intoxicated. Identify and explain two characteristics of an alcohol induced altered state of consciousness that Lisa may have experienced.

Question 2 (2 marks)

Jonah is a fifteen year old year 10 student. He usually stays up until 2am on weekends and sleeps in until midday on Saturday and Sunday. Jonah finds it difficult to wake up on Monday morning to get to school for an 8.30am class. He feels tired all day but in the evening he starts to feel more awake and finds himself going to bed after midnight on most school nights too. Give a physiological explanation for why Jonah finds it difficult to fall asleep on school nights.

Question 3 (3 marks)

Sharma was driving home late from work when she witnessed a car accident between a black Holden Commodore carrying five teenage boys and an elderly woman driving a silver Toyota Camry. As there was no one else around at the time, Sharma called the emergency services from the scene and waited for their arrival. When the police arrived they asked Sharma a number of questions about the accident including “How fast was the black Holden Commodore travelling when it smashed into the silver Toyota Camry?”. Sharma estimated the speed was 100km p/h, even though it was only a 60 km p/h zone. Fortunately a speed camera in the area had recorded that the Holden Commodore was travelling at 62 km p/h prior to the collision with the Toyota Camry.

With reference to the work of Elizabeth Loftus, explain why Sharma estimated the car speed as much greater than it was.

Question 4 (3 marks)

Jacob is four years old and is being driven to kindergarten. On the way there, he sees his favourite fast food store, Wally’s, out of his window and starts screaming that he needs to have a thick shake or he will not get out of the car when they arrive at kindergarten. He does not stop screaming until his mother pulls into Wally’s and buys him the thick shake.

a. What type of learning is this an example of?

1 mark

- b. Jacob receiving the thick shake is an example of positive reinforcement for him. The following day, Jacob repeats the behaviour until his mother buys him a thick shake again. With reference to reinforcement for his mother, explain why she bought him a thickshake again? 2 marks

Question 5 (3 marks)

While Pablo and his girlfriend, Maria, were driving to a wedding they had an argument in the car. Pablo abruptly parked the car to get out, but he bumped his head and fell to the ground, briefly losing consciousness. With reference to consolidation theory, explain why Pablo would be unable to remember the argument with his girlfriend when he regained consciousness.

Question 6 (3 marks)

Frances has suffered from severe epilepsy for years. To help localise her seizures, she had an operation that involved having her corpus callosum cut. As a result of this, when participating in split brain research conducted by Sperry and Gazzaniga, it was found that when words were flashed to her right visual field, Frances was able to read and report the words verbally. However, when the words were flashed to her left visual field, she was unable to report the words verbally but could select the item she had seen by touch.

With reference to hemispheric specialisation, explain these findings.

Question 7 (3 marks)

Mary went to the fair on the weekend and saw a clown making balloon animals for the children. Mary was so fascinated that she watched him for 45 minutes before deciding to go on some rides. The following weekend, at a birthday party, Mary noticed there were some long balloons. She picked one up and immediately made a balloon animal.

a. What type of learning is Mary demonstrating? 1 mark

b. Identify two elements of this type of learning and explain how Mary has demonstrated them. 2 marks

Question 8 (2 marks)

Jack, a soldier, has returned from the Iraq War after five years in combat. While he was there he was captured and tortured for several months. Upon his rescue, he returned home. Jack vividly recalls certain aspects of being in Iraq, however, he is adamant that he was never captured and tortured.

Which theory of forgetting best describes why Jack cannot recall being captured and tortured? Justify your answer.

Question 9 (3 marks)

Hans suffered a stroke and now suffers from spatial neglect.

- a.** Explain spatial neglect and identify the area of Hans's brain that has most likely sustained damage causing spatial neglect. 2 marks

- b.** Give an example of the type of behaviour Hans may exhibit as a result of the spatial neglect. 1 mark

Question 10 (3 marks)

Mr Lovejoy was teaching his year 8 Mathematics class. As the students were filing into the room at the beginning of the lesson, a student, Harvey, approached Mr Lovejoy and told him he would have to leave half way through the class for a music lesson. Mr Lovejoy nodded. Immediately after this, another student came in looking very distressed and asked to go to the sick bay. Mr Lovejoy agreed and wrote the student a pass to go to the sickbay. When Harvey stood up half way through the class to leave for his music lesson, Mr Lovejoy shouted at Harvey to sit down.

With reference to the Atkinson and Shiffrin multi-store model of memory, identify the memory processes that occurred in this scenario and give an explanation as to why Mr Lovejoy did not remember that Harvey was going to his music lesson, even though he had told him he was.

Question 11 (4 marks)

Professor Levau was investigating whether listening to music could assist people with traumatic brain injuries (TBI) remember episodic memories that they had forgotten as a result of their injuries. She obtained 100 participants, 50 without TBI to act as the control group and 50 with TBI (sourced from local rehabilitation centres). The findings revealed that the memories recalled were mostly of people or a period of their lives and were broadly similar in the experimental group (those with TBI), who had music to listen to, to those evoked by control participants who did not have a TBI. With the significance level of the research set at $p < 0.05$, the statistical test comparing the means indicated that $p = 0.02$.

- a.** What is the role of the control group in this experiment? 1 mark

- b.** What lobe of the brain would have sustained damage for episodic memories to be affected? 1 mark

- c.** Based on the test of significance, explain what type of conclusion could be drawn from the above study. 2 marks

Question 12 (7 marks)

Mr McCafferty carried out an experiment with his year 12 psychology class. He split the class into two groups. Each group was given a list of 10 words to memorise. Group A was then given time to write down all of the words they could recall. Group B was played a distracting clip for a minute after being given the word list to memorise and they were then asked to recall the words. The results are presented in the following table.

Table 1. Mean recall scores for word lists

	Without Interference	With Interference
Mean Score	9.65	6.98

The significance level was set at $p < 0.05$. A p-test was used to calculate whether the difference between the groups' mean scores was statistically significant and the results showed $p = 0.03$.

- a.** What does $p = 0.03$ mean? 1 mark

- b.** Identify two components of working memory and explain how they would have been used during the procedure of this experiment. 2 marks

- c. Discuss how both maintenance and elaborative rehearsal could have influenced the results of this experiment.

4 marks

Question 13 (3 marks)

Holly has a phobia of escalators. Her psychologist has decided to use flooding to treat Holly’s phobia. With reference to psychological terms, explain how the process of flooding could help Holly with her phobia of escalators.

Question 14 (3 marks)

Jennie's new boyfriend, Ari, displays certain annoying behaviours. His most annoying habit is always having his iPhone out, even when they are on a dinner date. To stop him from continuing this behaviour, Jennie pinches him every time he gets his iPhone out. She is so pleased with herself that she tells her psychology teacher about the 'negative reinforcement' she is using to change Ari's behaviour. Discuss why she is incorrect and what should she call this aspect of operant conditioning instead of negative reinforcement.

Question 15 (4 marks)

Jasmine has recently moved into a new apartment block. Each morning when she has her shower, the water becomes extremely hot when the person in the apartment above her flushes their toilet, causing Jasmine to jump back from the water. Jasmine can hear the toilet flush, so over time begins to jump out of the way before the water becomes too hot. Jasmine eventually complains to the landlord who fixes the problem.

- a.** Explain how the process of Classical Conditioning occurred in this scenario. 2 marks

- b. When is extinction evident in Classical Conditioning? Explain with reference to the above scenario. 2 marks

Question 16 (2 marks)

During memory formation, both the structure and function of neurons is altered. Identify one change in function and one change in structure.

function:

structure:

Question 17 (2 marks)

Dulcie is 81 years old. She has a healthy aging brain (no alzheimers or dementia), however, her declarative memories are not as good as those of her 25-year-old grand-daughter. Give two explanations why this may occur.

Question 18 (6 marks)

Farrah is a conscientious student who loves school. Her family values education and is always telling her that she must achieve A+ grades to be successful. At times she feels pressure from her family who insist that she studies several hours each day after school and over the weekend. Recently, Farrah has achieved some grades lower than A+ and this is causing her to feel stressed. She is disappointed with herself and knows her family will be disappointed with her too. She is feeling sick and anxious and has become too scared to tell her family.

- a.** According to the biopsychosocial framework, identify and explain two potential factors in Farrah's stress response. 2 marks

- b.** How could biofeedback help Farrah manage her stress? 2 marks

- c. Other than biofeedback, identify and explain an alternative strategy that could help Farrah manage her stress. 2 marks

Question 19 (2 marks)

Samuel was playing rugby on the weekend and received a very heavy blow to the head. He also experienced headaches for several weeks following the accident, and a CT scan showed damage to one lobe of the brain.

Since the accident Samuel has experienced a constant numbness in his left leg. The lobe and hemisphere of the brain most likely affected in this case is the

SECTION C – Research Scenario**Instruction for Section C**

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

Your responses may include diagrams, charts and tables.

Professor Cuggle wanted to investigate the effect of chunking information on the capacity of short term memory (STM). He gathered 500 participants from Victoria and they were allocated to either group A or Group B. Both groups were shown a word list and given two minutes to memorise the words. After the two minutes had passed, the participants were asked to write down as many words as they could remember from the word list.

The lists presented to each group were as follows:

Group A					
Nine	Swap	Cell	Ring	Lust	
Plugs	Lamp	Apple	Table	Sway	
Army	Bank	Fire	Hold	Worm	
Clock	Horse	Color	Baby	Sword	
Desk	Hold	Find	Bird	Rock	

Group B					
Horse	Cat	Dog	Fish	Bird	
Orange	Yellow	Blue	Green	Black	
Table	Chair	Desk	Bookcase	Bed	
Teacher	School	Student	Homework	Class	
Apple	Banana	Kiwi	Grape	Mango	

The test of significance is calculated and $p=0.01$. The results were printed in the newspaper and several of the participants with outstanding memory abilities were named in the article and were commended for their abilities.

Question 1 (2 marks)

Random allocation was used by Professor Cuggle. Explain the difference between random allocation and random sampling.

Question 2 (1 mark)

Did Professor Cuggle collect qualitative or quantitative data?

Question 3 (2 marks)

Identify an ethical consideration that was breached by Professor Cuggle and explain how this occurred.

Answer Sheet for All Multiple Choice Questions

Use pencil only to shade the box with the correct answer

Name: _____

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
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15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
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59	A	B	C	D
60	A	B	C	D
61	A	B	C	D
62	A	B	C	D
63	A	B	C	D
64	A	B	C	D
65	A	B	C	D

Solution Pathway

Each answer indicates the Unit, Key Knowledge dot point and (where appropriate) sub-dot point in the Study Design to which the question relates.

SECTION A: Multiple-choice questions

QUESTION 1-B	U3 AOS 1 DP 1	QUESTION 19 – C	U4 AOS 2 DP 6
QUESTION 2-B	U3 AOS 1 DP 2	QUESTION 20-A	U3 AOS 2 DP 2 (4)
QUESTION 3-A	U3 AOS 2 DP 3 (3)	QUESTION 21-B	U3 AOS 2 DP 1 (5)
QUESTION 4-B	U3 AOS 1 DP 4	QUESTION 22-B	U3 AOS 2 DP 4 (2)
QUESTION 5-C	U3 AOS 1 DP 6 (1)	QUESTION 23-C	U3 AOS 2 DP 2 (2)
QUESTION 6-D	U3 AOS 1 DP 5 (2)	QUESTION 24-C	U4 AOS 1 DP 1 (1)
QUESTION 7-B	U3 AOS 1 DP 7	QUESTION 25-C	U4 AOS 1 DP 2 (2)
QUESTION 8-C	U3 AOS 1 DP 7	QUESTION 26-D	U4 AOS 1 DP 3 (1)
QUESTION 9-C	U3 AOS 1 DP 7	QUESTION 27-C	U4 AOS 1 DP 3 (1)
QUESTION 10-B	U3 AOS 1 DP 7	QUESTION 28-B	U4 AOS 1 DP 3 (1)
QUESTION 11-D	U3 AOS 1 DP 7	QUESTION 29-B	U4 AOS 1 DP 3 (5)
QUESTION 12-C	U3 AOS 1 DP 5 (1)	QUESTION 30-A	U4 AOS 1 DP 3 (2)
QUESTION 13-B	U3 AOS 1 DP 4 (2)	QUESTION 31-C	U3 AOS 1 DP 5 (2)
QUESTION 14-B	U3 AOS 1 DP 5 (2)	QUESTION 32-D	U3 AOS 2 DP 1 (5)
QUESTION 15-B	U3 AOS 2 DP 2 (1)	QUESTION 33-C	U4 AOS 2 DP 2
QUESTION 16-A	U3 AOS 2 DP 2 (3)	QUESTION 34-A	U4 AOS 2 DP 3
QUESTION 17-C	U3 AOS 2 DP 2 (4)	QUESTION 35-C	U4 AOS 2 DP 4 (1)
QUESTION 18-C	U4 AOS 2 DP 6	QUESTION 36-A	U4 AOS 2 DP 4 (4)

QUESTION 37-A	U4 AOS 2 DP 4 (1)	QUESTION 54-D	U4 AOS 1 DP 3 (4)
QUESTION 38-C	U4 AOS 1 DP 3 (5)	QUESTION 55-B	U4 AOS 1 DP 3 (4)
QUESTION 39-A	U3 AOS 2 DP 4 (3)	QUESTION 56-A	U4 AOS 1 DP 3 (6)
QUESTION 40-B	U3 AOS 2 DP 3 (5)	QUESTION 57-B	U4 AOS 1 DP 3 (7)
QUESTION 41-D	U3 AOS 2 DP 3 (1)	QUESTION 58-B	U4 AOS 2 DP 4 (5)
QUESTION 42-C	U3 AOS 1 DP 3 (1)	QUESTION 59-C	U3 AOS 2 DP 2 (1)
QUESTION 43-B	U3 AOS 1 DP 3 (1)	QUESTION 60-D	U3 AOS 1 DP 3 (1)
QUESTION 44-C	U3 AOS 1 DP 7	QUESTION 61-D	U3 AOS 1 DP 5 (2)
QUESTION 45-B	U3 AOS 1 DP 7	QUESTION 62-A	U4 AOS 1 DP 2 (2)
QUESTION 46-D	U3 AOS 2 DP 1 (2)	QUESTION 63-C	U4 AOS 2 DP 4 (2)
QUESTION 47-C	U3 AOS 2 DP 1 (1)	QUESTION 64-A	U4 AOS 2 DP 4 (2)
QUESTION 48-C	U3 AOS 2 DP 1 (1)	QUESTION 65-D	U4 AOS 2 DP 4 (2)
QUESTION 49-B	U3 AOS 2 DP 1 (4)		
QUESTION 50-C	U4 AOS 2 DP 1		
QUESTION 51-B	U3 AOS 2 DP 5		
QUESTION 52-D	U4 AOS 1 DP 3 (6)		
QUESTION 53-A	U4 AOS 1 DP 4		

SECTION B: Short Answer questions**Question 1 U3 AOS 1 DP 1**

Students must identify and explain any two of the following, also referring specifically to Lisa:

- *reduced level of awareness (of both internal and external events; less aware of what is occurring around them)*
- *fewer content limitations (lack of control over what we allow into our consciousness, eg, cannot block out information that makes us feel sad)*
- *controlled and automatic processes become more difficult*
- *perceptual (eg blurred vision, decrease in pain threshold) and cognitive distortions (eg poor judgement)*
- *emotional awareness can be heightened (eg over emotional) or dulled (withdrawn)*
- *self-control is decreased (eg, more daring or impulsive than usual)*
- *time orientation diminishes.* (2 marks)

Question 2 U3 AOS 1 DP 4 (3)

An adolescent's body clock is shifted forward 1-2 hours (1 mark) due to later release of the hormone melatonin (1 mark). (2 marks)

Question 3 U3 AOS 2 DP 4 (4)

Loftus researched the impact that the wording of questions can have on memory (1 mark). She found that a presupposition (that provides new information) such as the verb "smashed", which was used by the police when talking to Sharma (1 mark), distorted the memory of the event causing Sharma to overestimate the speed of the car (1 mark). (3 marks)

Question 4 U4 AOS 1 DP 3 (4)

- Operant conditioning.* (1 mark)
- It is negative reinforcement for Jacob's mother; by buying him the thick shake, she is removing the unpleasant stimulus of the tantrum, which is a satisfying consequence for Jacob's mother, so she is more likely to repeat the behaviours.*

(2 marks)

Question 5 U3 AOS 2 DP 1 (3)

According to consolidation theory structural/physical changes occur to neurons during and immediately after learning (1 mark). Time (about 30 minutes) is required for these changes to take place (1 mark), however, when Pablo became concussed, this acted as a disruption to the consolidation process so the information was not encoded to LTM (1 mark). (3 marks)

Question 6 U3 AOS 1 DP 6 (3)

Suggests that the left and right hemispheres have different specialisations (1 mark), specifically, the left hemisphere, which receives information from the right visual field, but cannot transfer it to the right hemisphere, has specialised language functions (1 mark). The right hemisphere can still process information and express itself non-verbally on receiving information from the left visual field (1 mark). (3 marks)

Question 7 U4 AOS 1 DP 3 (7)

- a.** *Observational learning*
- b.** Any of the following two (must be identified and explained):
- *Attention – Mary closely watched the clown (model) for 45 minutes.*
 - *Retention – Mary stored in her memory a mental representation of how the balloon animal was made.*
 - *Reproduction – Mary has the ability to make the balloon animal.*
 - *Motivation – Mary wanted to reproduce the balloon animal.*
 - *Reinforcement – Mary experienced a feeling of achievement and pride from recreating the balloon animal.*
- (1+2=3 marks)

Question 8 U3 AOS 2 DP 3 (4)

Repression – Jack has unconsciously blocked this painful/traumatic experience from entering his conscious awareness as a defence mechanism. (2 marks)

Question 9 U3 AOS 1 DP 6 (2)

- a. *Spatial neglect is characterised by an individual ignoring stimuli on one side of their body (typically the left side) (1 mark). Damage would most likely be to the right (rear) parietal lobe.*
- b. *Students should include one example that demonstrates spatial neglect such as; forgetting to shave the left side of his face, not eating food off the left side of his plate. (2+1 = 3 marks)*

Question 10 U3 AOS 2 DP 2 (1)

The information (Harvey going to his music lesson) was attended to by Mr Lovejoy so was in his STM (1 mark), however, it was not encoded to his LTM (1 mark) before he was distracted by another student which made him forget the initial information. (1 mark). (3 marks)

Question 11 U3 AOS 2 DP 5

- a. *Control group provides a standard to compare the experimental group to (no independent variable for the control group).*
- b. *Temporal lobe.*
- c. *The test was statistically significant, accepted hypothesis that listening to music can assist people with TBI's to bring back episodic memories. (1+1+2 = 4 marks)*

Question 12 U3 AOS 2 DP 5 & DP 2 (1 & 2)

- a. *The probability of the results of this experiment occurring by chance are 3 in 100.*
- b. *Accept any two of the following:*
- *Phonological loop – activated - storing what was heard, sub-vocalisation of words.*
 - *Visuo-spatial sketchpad – used to visualize images of the word .*
 - *Central executive – controlling our attention on the task - attending to the information. Deciding which words to report as correct.*
 - *Episodic buffer – could have enabled retrieval of info from LTM to associate with information in Working Memory which would have enabled the selection and encoding of certain words to LTM.*

- c. *Maintenance rehearsal of words could have occurred if participants constantly repeated the words over and over - this would assist in retaining information in STM (1 mark). Could have had a minor impact on improving Group A's results but not Group B who were distracted with the clip (1 mark). Elaborative rehearsal of words could have occurred if all participants linked the words to information already in LTM – or linking (categorizing) words in the list to others.(1 mark) Semantic encoding would then occur and participants are more likely to recall this information in both conditions as information would have been better encoded to LTM (1 mark).*

(1+2+4=7 marks)

Question 13 U4 AOS 1 DP 3 (2)

Holly was brought into direct contact with the escalator (CS) and was kept in contact with it (1 mark) until the CR (fear) had been extinguished (1 mark). She was exposed to the escalator directly and realised that it was harmless (1 mark).

(3 marks)

Question 14 U4 AOS 1 DP 3 (4)

Negative reinforcement is the removal or avoidance of an unpleasant stimulus to increase the likelihood of a behaviour being repeated (1 mark). However, in this example Jennie is trying to decrease the likelihood of Ari displaying certain behaviours by using an unpleasant consequence (1 mark) so this is punishment (1 mark).

(3 marks)

Question 15 U4 AOS 1 DP 3 (1 & 6)

- a. *Through the repeated association of the hot water (UCS) and toilet flushing (CS), (1 mark) Jasmine began to jump out of the water (CR) at the sound of the toilet flushing (1 mark).*
- b. *When there is a gradual decrease in the rate or strength of a CR that occurs when the UCS is no longer present(ed) (1 mark) OR CR no longer occurs following the presentation of the CS (1 mark). Extinction would be evident when the toilet flushes (CS) and Jasmine no longer jumps out of the water (CR) (1 mark).*

(2+2 = 4 marks)

Question 16 U3 AOS 2 DP 1 (1)

- *Function: increase in amount of neurotransmitter produced and released OR larger effects of neurotransmitters at receptor sites.*
- *Structure: growth and strengthening of synaptic connection.* (1+1 = 2 marks)

Question 17 U3 AOS 2 DP 1 (4)

Any two of the following for explaining the difference between Dulcie and her grand-daughter's declarative memory ability:

- *Confidence decreases in memory abilities with age.*
- *Older people have a lack of motivation for remembering certain types of information.*
- *Degrading of CNS/less use of pre-frontal cortex with age/slowing of neural processes/cognitive slowing.*
- *Measure of retention used; older people perform worse on recall tasks than younger people but there is less difference in memory abilities of older and younger people when using recognition.* (2 marks)

Question 18 U4 AOS 2 DP 4 (3 & 5)

- a. Two of:
- *Biological – increase in physiological arousal to stressors (parents expectations).*
 - *Social/Cultural – expectations from family.*
- b. *Farrah would be attached to various physical measuring devices (e.g. EEG, ECG, EMG, GSR) that provide feedback on physiological (or involuntary) processes linked to psychological stress (1 mark). She would then use this feedback to detect and control certain internal bodily processes such as relaxing muscles, calming thoughts etc. (1 mark).*

- c. Identify and explain one of the following:
- *Meditation: altering ones state of consciousness by focussing inwards (clear thoughts and a relaxed mind) and moving away from external stressors.*
 - *Physical exercise: uses up stress hormones, reduces muscle tension, increases stamina for dealing with stressors, release of endorphins promoting positive mood.*

(2+2+2=6 marks)

Question 19 U3 AOS1 DP 5 (2 & 3)*Right (1 mark) parietal lobe (1 mark).*

(2 marks)

SECTION C: Research Scenario**Question 1***Random allocation is when participants are equally likely to be in one group or the other (1 mark)**whereas random sampling is when everyone in the population has an equal chance of being selected to participate in a study (1 mark).*

(2 marks)

Question 2*Quantitative.*

(1 mark)

Question 3*Confidentiality; Professor Cuggle named and discussed the results of certain participants in the newspaper.*

(2 marks)

Question 4

- *IV; wordlists presented as random or chunked information.* (1 mark)
- *DV; mean number of words recalled on word lists.* (1 mark)
- *Research hypothesis: When presented with information that is chunked, participants will show a larger capacity of their STM when compared to participants who are presented with information that is not chunked.* (2 marks)
- *Results were statistically significant ($p=0.01$) so hypothesis is accepted.* (1 mark)

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- *Independent groups:*
advantages: saves time (can be done all at once), fewer drop-outs, no order effects such as practice or boredom as in repeated measures,
disadvantages: need a larger number of participants to control for individual participant variables than a repeated measures design. (3 marks)
- *Extraneous variables include intelligence, emotional state, medication, motivation, work status or any other appropriate variable. Appropriate explanation of how variable was controlled (for example, medication – ask participants to disclose any medication they are taking prior to the test), then equally distribute these participants in each group).* (2 marks)