

Name: \_\_\_\_\_

Teacher's name: \_\_\_\_\_

STUDENT NUMBER

Letter

## PSYCHOLOGY

### Written examination

2020

Reading time: 15 minutes  
Writing time: 2 hours 30 minutes

## QUESTION AND ANSWER BOOK

### Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	50	50	50
B	7	7	70
			Total 120

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

#### Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** on your answer sheet for multiple-choice questions is correct.
- 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 score 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

*Use the following information to answer Questions 1-3.*

Harry went to his doctor to discuss recent changes to his mobility. After a number of tests, the doctor diagnosed him with Parkinson's disease. When Harry shared the news with his daughter, she had to sit down as she felt faint.

**Question 1**

Which of the following neural changes is Harry likely to exhibit?

- A. an increase in melatonin
- B. a reduction in dopamine
- C. a regeneration of neurons
- D. a loss of myelin

**Question 2**

Harry was asked to pick up a glass of water as part of the diagnostic tests. Which division of his nervous system would primarily be involved in the movement of his arm?

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

**Question 3**

Which stage or sub-stage of Selye's General Adaptation Syndrome was Harry's daughter most likely in when she first heard the news of Harry's diagnosis?

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

**Question 4**

Identify the difference between the effects of excitatory and inhibitory neurotransmitters.

	<b>Excitatory neurotransmitter</b>	<b>Inhibitory neurotransmitter</b>
<b>A.</b>	increases the likelihood of the postsynaptic neuron to fire	reduces the likelihood of the postsynaptic neuron to fire
<b>B.</b>	increases the likelihood of the presynaptic neuron to fire	reduces the likelihood of the presynaptic neuron to fire
<b>C.</b>	reduces the likelihood of the postsynaptic neuron to fire	increases the likelihood of the postsynaptic neuron to fire
<b>D.</b>	reduces the likelihood of the presynaptic neuron to fire	increases the likelihood of the presynaptic neuron to fire

**Question 5**

Which of the following incorrectly matches the structure to its function?

- A. myelin – speeds up neural transmission
- B. dendrites – releases neurotransmitters
- C. axon – transmits neural messages
- D. myelin – insulates the neural signal

*Use the following information to answer Questions 6-8.*

Watson and Rayner classically conditioned an emotional response of fear in Little Albert, a toddler.

**Question 6**

The part of the Little Albert's brain that is primarily responsible for the consolidation of the fear is the

- A. hippocampus.
- B. cerebral cortex.
- C. amygdala.
- D. cerebellum.

**Question 7**

Little Albert's conditioned emotional response of fear of the white rat was formed through the repeated association between the

- A. conditioned response and the conditioned stimulus.
- B. unconditioned stimulus and the unconditioned response.
- C. neutral stimulus and the unconditioned stimulus.
- D. neutral stimulus and the conditioned stimulus.

**Question 8**

The repeated presentation of a white rat with a loud noise would have likely \_\_\_\_\_ Little Albert's phobia of white rats.

- A. predisposed
- B. precipitated
- C. perpetuated
- D. protected

*Use the following information to answer Questions 9 and 10.*

As he was walking into the chemist, Nick's wife calls him with 20 items that they need for their baby.

**Question 9**

When Nick hangs up the call, he is most likely to remember

- A. all 20 of the items.
- B. the last few items only.
- C. the middle items only.
- D. the first few and last few items.

**Question 10**

As Nick walks around the chemist, he sees the nappy section and remembers that this was an item he needed to buy. Which method to retrieve information is this an example of?

- A. recall
- B. reconstruction
- C. recognition
- D. relearning

**Question 11**

The role of the axon terminal of a neuron is to

- A. generate the action potential.
- B. insulate the action potential.
- C. release neurotransmitter.
- D. receive neurotransmitter.

*Use the following information to answer Questions 12-15.*

When Jasmine was five-years-old, her family took her to a theme park. During their visit, a pirate surprised her multiple times by making a frighteningly loud noise, "Arrrr!". This shocked Jasmine and caused her to cry. Now every time Jasmine sees a pirate, or anyone dressed in costume, such as a clown, she becomes so fearful that she is unable to move.

**Question 12**

In the scenario, the conditioned stimulus was the \_\_\_\_\_ and the unconditioned response was the \_\_\_\_\_.

- A. loud noise; fear of the pirate
- B. loud noise; fear of the loud noise
- C. the pirate; fear of the loud noise
- D. the pirate; fear of the pirate

**Question 13**

Which one of the following best describes Jasmine's fear response to clowns?

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

**Question 14**

This scenario is an example of classical conditioning as opposed to operant conditioning because

- A. the learner is active.
- B. the learner demonstrates a conditioned response.
- C. the response is due to conditioning.
- D. the response is involuntary.

**Question 15**

In terms of a biological stress response, explain why Jasmine was unable to move when she saw the clown.

- A. she was experiencing the freeze response because she could not respond with fight or flight
- B. she was experiencing the flight response because she could not respond with fight or freeze
- C. she was experiencing the approach response because she could not respond with the fight-flight-freeze response
- D. she was experiencing the avoidance response because she could not respond with the fight-flight-freeze response

*Use the following information to answer Questions 16 and 17.*

Trevor, a healthy 42-year-old man, fell off a ladder and sustained a severe head trauma. He lost consciousness momentarily and has been unable to recall any of the events that have occurred since the accident.

**Question 16**

Trevor still remembers his life before the accident, such as the time he travelled to France on exchange to learn French. His French would likely have been stored in

- A. his hippocampus.
- B. both his cerebral cortex and hippocampus.
- C. his cerebral cortex.
- D. neither his cerebral cortex nor hippocampus.

**Question 17**

If Trevor had damage to both hippocampi, he should still be able to

- A. recall the trip to the hospital.
- B. remember the names of the doctors who treated him.
- C. learn new French words.
- D. learn to use a new knitting technique.

**Question 18**

It is evident that long term potentiation has occurred when

- A. synaptic connections have been strengthened, resulting in enhanced synaptic transmission.
- B. synaptic connections have been strengthened, resulting in reduced synaptic transmission.
- C. synaptic connections have been weakened, resulting in enhanced synaptic transmission.
- D. synaptic connections have been weakened, resulting in reduced synaptic transmission.

*Use the following information to answer Questions 19-21.*

Researchers at a university were conducting an experiment to investigate different ways to improve a person's ability to remember information. In the study, they randomly allocated participants to two groups. Group 1 was told to remember a list of words as best they could, whereas Group 2 was told to remember a different list of words by linking the words to other words they knew.

**Question 19**

Group 2's instructions demonstrated which factor that influences a person's ability to remember information?

- A. elaborative rehearsal
- B. maintenance rehearsal
- C. recognition
- D. relearning

**Question 20**

After they conducted the experiment, the researchers realised that they had an issue with their investigation. Which of the following extraneous variables could have arisen due to each group being asked to remember a different list of words?

- A. placebo effect
- B. placebo
- C. non-standardised procedures
- D. experimenter effect

**Question 21**

The type of experimental research design used in this study was a/n

- A. matched participants design.
- B. repeated measures design.
- C. independent groups design.
- D. cross sectional study.

**Question 22**

James was writing summary notes about the different types of long-term memories. When comparing implicit to explicit memories, which of the following did he get wrong in his notes?

	<b>Implicit</b>	<b>Explicit</b>
A.	non-declarative	declarative
B.	requires conscious recollection	does not require conscious recollection
C.	involves memories that are difficult to state or describe	involves memories that can be easily stated or described
D.	knowing how	knowing that

*Use the following information to answer Questions 23-25.*

Marcelle witnessed a traumatic hit-and-run accident between a bicycle and a car on her way home from work.

**Question 23**

The neurohormone involved in the strong consolidation of Marcelle's memory of the incident is

- A. cortisol.
- B. adrenaline.
- C. GABA.
- D. dopamine.

**Question 24**

As a key witness to the incident, the police asked to take Marcelle back to the scene to help her memory of the number plate of the car that drove away. Taking Marcelle back to the scene of the collision would primarily provide

- A. placebos.
- B. maintenance rehearsal.
- C. state dependent cues.
- D. context dependent cues.

**Question 25**

After coming back to the scene, the police asked her further questions. According to Loftus' research,

- A. the memory of an eyewitness cannot be manipulated, making them a highly reliable source of evidence.
- B. leading questions do not lead to the reconstruction of memories.
- C. exposure to leading questions has a positive effect on the memory of an eyewitness, as these can act as retrieval cues.
- D. memories are reconstructive in nature, and can be manipulated by leading questions.

*Use the following information to answer Questions 26 and 27.*

A sleep psychologist was conducting research into the management of jet lag. After returning to Melbourne from an overseas trip, one group of participants were required to use bright light therapy, while the control group had no intervention. All other conditions of the experiment were kept the same in both groups.

**Question 26**

The use of bright light by the psychologist was

- A. an independent variable.
- B. a dependent variable.
- C. an extraneous variable.
- D. a confounding variable.

**Question 27**

By using bright light therapy, the psychologist hoped to

- A. shift the participants' sleep-wake cycle two hours ahead of the Melbourne time zone.
- B. shift the participants' sleep-wake cycle to the time zone they had overseas.
- C. resynchronise the participants' sleep wake cycle to the Melbourne time zone.
- D. increase the participants' level of sleepiness.

*Use the following information to answer Questions 28-30.*

Ben had consumed eight standard alcoholic drinks at a party, over a short amount of time. His housemate Tom joined the party and decided not to drink, but had just finished shift work and had not slept for 24 hours.

**Question 28**

Ben is likely in an altered state of consciousness that could be characterised as

- A. naturally occurring.
- B. induced.
- C. medicative.
- D. meditative.

**Question 29**

Ben and Tom got into an argument about who would be the safest to drive home. Research suggests that someone with a BAC of \_\_\_\_\_ would have approximately the equivalent level of cognitive functioning as someone who has been awake for \_\_\_\_\_.

- A. 0.05%; 24 hours
- B. 0.10%; 24 hours
- C. 0.01%; 24 hours
- D. 0.10%; 17 hours

**Question 30**

Which of the following would best determine that Ben was in an altered state of consciousness?

- A. decreased emotional awareness
- B. increased breathing
- C. increased content limitations
- D. decreased automatic processes

*Use the following information to answer Questions 31-32.*

In the car on the way to a family holiday, three sisters sat in the back seat. Jenny was daydreaming and staring dreamily out the window, Georgia was completing a crossword puzzle on her phone, and Fran had just fallen asleep.

**Question 31**

Which of the following would correctly describe the sisters' states of consciousness?

	<b>Jenny</b>	<b>Georgia</b>	<b>Fran</b>
A.	altered state of consciousness	altered state of consciousness	normal waking consciousness
B.	normal waking consciousness	altered state of consciousness	altered state of consciousness
C.	altered state of consciousness	normal waking consciousness	altered state of consciousness
D.	normal waking consciousness	normal waking consciousness	altered state of consciousness

**Question 32**

Fran's psychological state would likely involve \_\_\_\_\_ compared to Georgia's.

- A. a reduction in content limitations
- B. more awareness
- C. a greater ability to accurately perceive time
- D. an enhanced ability to perform automatic processes



**Question 33**

Which of the following options correctly identifies a biological, psychological, and social contributing risk factor in the development of a specific phobia?

	<b>Biological</b>	<b>Psychological</b>	<b>Social</b>
<b>A.</b>	GABA dysfunction	long-term potentiation	stigma around seeking treatment
<b>B.</b>	role of stress response	long-term potentiation	stigma around seeking treatment
<b>C.</b>	role of stress response	catastrophic thinking	social support
<b>D.</b>	GABA dysfunction	catastrophic thinking	specific environmental triggers

*Use the following information to answer Questions 34 and 35.*

Ken recently lost his job.

**Question 34**

If it was said that Ken displayed high levels of coping flexibility, this would involve him

- A.** using the same coping strategy in all stressful situations.
- B.** using no coping strategy for a stressful situation.
- C.** adapting the stressful situation to match the coping strategy.
- D.** adapting the coping strategy to match the stressful situation.

**Question 35**

Which strategy would not show that Ken had a high level of resilience?

- A.** arranging to talk to a recruiter
- B.** ordering a burger and fries every night
- C.** ensuring he gets adequate sleep
- D.** working on updating his resume

*Use the following information to answer Questions 36-38.*

35-year-old Sally had just given birth to a baby boy named Rory.

**Question 36**

What approximate proportion of sleep would be REM for Rory and Sally?

	<b>Rory</b>	<b>Sally</b>
A.	20%	50%
B.	50%	20%
C.	20%	20%
D.	50%	50%

**Question 37**

According to the restoration theory of sleep, REM sleep is important

- A. in order to restore psychological processes such as muscle and tissue repair.
- B. because experiencing more REM sleep at night enhances the chance of survival.
- C. in order to conserve energy and to protect from harm.
- D. in order to restore mental processes and consolidate neural pathways.

**Question 38**

Sally had been having trouble getting to sleep even once her baby was asleep. Her doctor asked Sally to keep a sleep diary for a week to review her sleeping habits, including what she ate before bed, and the time she went to bed. The type of data this sleep diary generated is

- A. secondary qualitative (time in bed) and quantitative (what she ate) data.
- B. secondary quantitative (time in bed) and qualitative (what she ate) data.
- C. primary qualitative (time in bed) and quantitative (what she ate) data.
- D. primary quantitative (time in bed) and qualitative (what she ate) data.

*Use the following information to answer Questions 39 and 40.*

Gino went out one night to withdraw money from an ATM when he suddenly heard a loud banging noise, causing him to jump backwards. His heart rate increased, and he noticed his hands were shaking.

**Question 39**

Which division of the nervous system would have caused Gino's heart rate to increase?

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

**Question 40**

Which of the following supports the notion that his reaction of jumping backward was a reflex?

- A. his response was performed with conscious thought
- B. his response was performed without conscious thought
- C. the brain voluntarily coordinated the response
- D. the nervous system deliberately made an adaptive response

*Use the following information to answer Questions 41-43.*

Alex had been suffering from sleep deprivation for the past four to six months. His lack of sleep was affecting his day to day functioning. He had recently decided it was time to see a sleep psychologist.

**Question 41**

The sleep psychologist asked Alex to sleep overnight in a sleep laboratory so that they could investigate his sleeping problem further. Which of the following is not a characteristic of an electroencephalograph (EEG)?

- A. detects, amplifies and records the electrical activity of the brain
- B. uses electrodes placed on the scalp
- C. depicts amplitude and frequency of brainwaves
- D. measures bodily movements

**Question 42**

The sleep psychologist wanted to collect qualitative data about Alex's sleep. Which of the following could the psychologist use?

- A. an electro-oculograph (EOG)
- B. an electromyograph (EMG)
- C. video monitoring
- D. all of the above

**Question 43**

To determine Alex's level of alertness after his sleep, the psychologist asked Alex to undertake a cognitive task. This involved Alex watching a 30-minute video of a safari, and pointing out whenever he saw a leopard, as quickly as possible. In other words, as soon as he recognised a leopard in the scene, Alex was required to declare that he spotted one. The psychologist also deducted points if Alex incorrectly identified another animal as a leopard. The psychologist was likely testing

- A. speed.
- B. accuracy.
- C. speed and accuracy.
- D. neither speed nor accuracy.

**Question 44**

A placebo refers to

- A. an inactive substance or treatment.
- B. the expectation that a particular treatment will change an individual's thoughts, feelings or behaviours in a certain way.
- C. the participants' inability to know that a certain experimental treatment has been applied to them.
- D. the participants' and experimenter's inability to know that a certain experimental treatment has been applied to a particular group of participants.

**Question 45**

One of the ethical issues with using a placebo treatment is that

- A. they are expensive and cannot usually be provided to all participants.
- B. they are inexpensive but must not be provided to all participants.
- C. participants in the experimental group may not get adequate treatment for a mental disorder.
- D. participants in the control group may not get adequate treatment for a mental disorder.

*Use the following information to answer Questions 46-47.*

Mia works in the city and commutes by train.

**Question 46**

Sometimes, the train is so full that Mia has to wait for the next train. Overcrowded trains would likely be considered a

- A. life event.
- B. daily pressure.
- C. major stressor.
- D. catastrophe.

**Question 47**

The following week, the station master announces that the train line that Mia takes is undergoing maintenance, with buses replacing trains, and her commute time increasing by an hour. Without a car, Mia is concerned that she will have to wake up even earlier to get to work on time in future. In primary appraisal, Mia would likely consider this

- A. a threat.
- B. a loss.
- C. a challenge.
- D. irrelevant.

*Use the following information to answer Questions 48-50.*

Amelia is 16-years-old and has been having trouble staying focused in class. For the past few months, she doesn't feel tired at night, and also struggles to get out of bed when her alarm goes off. It appears that her entire sleep-wake cycle has shifted forward. On the weekend, she often sleeps in until 11am.

**Question 48**

Amelia is most likely experiencing

- A. jet lag.
- B. shift work sleep disorder.
- C. an ultradian phase disorder.
- D. a circadian phase disorder.

**Question 49**

Compared to Amelia's seven-year-old brother, it is likely that she is experiencing difficulty falling asleep due to

- A. not secreting melatonin.
- B. an early release of melatonin.
- C. a delayed release of melatonin.
- D. an increase in the secretion of melatonin.

**Question 50**

A cognitive effect of Amelia's consequent sleep deprivation could be

- A. poor problem solving.
- B. a lack of hand-eye coordination.
- C. irritability.
- D. decreased reaction time.

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**SECTION B**

**Instructions for Section B**

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

**Question 1** (12 marks)

A new experimental drug has raised hopes for the treatment of memory loss associated with Alzheimer’s disease. Research has shown that memory loss is partially linked to levels of GABA, given that GABA appears to be able to lower background noise so that important signals in the brain can be processed more easily. The new drug is a form of a benzodiazepine and is designed to target specific GABA receptors found on neurons in key parts of the brain, such as the hippocampus. The drug could be taken as a daily pill by over-55s if clinical trials show that the medicine is safe and effective at preventing memory loss.

Adapted from [www.theguardian.com/science/2019/feb/14/new-drug-hopes-reversing-memory-loss-old-age-depression-schizophrenia-alzheimers](http://www.theguardian.com/science/2019/feb/14/new-drug-hopes-reversing-memory-loss-old-age-depression-schizophrenia-alzheimers)

- a. Explain the informed consent procedure for patients with Alzheimer’s disease to participate in the clinical trials proposed by the researchers. 3 marks

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- b. Describe a method that the researchers may use to randomly allocate the participants. 1 mark

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- c. Explain the purpose of using a control group in the study. 1 mark

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- d.** With reference to GABA and its effects on the nervous system, outline the processes involved in successful neural transmission once the neural impulse has reached the axon terminal. In your response, refer to the lock-and-key process. 4 marks

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- e.** Identify three key biological changes associated with Alzheimer's disease. 3 marks

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**Question 2** (10 marks)

Brothers Ivan and Hank are escaping their war-torn country, and moving to Australia. Ivan is stressed about his future, especially because he does not speak English fluently, while Hank is excited by the new opportunities that migrating will bring.

- a. Identify the likely source of stress for Ivan moving to Australia, given that he does not speak English fluently. 1 mark

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- b. Explain primary appraisal in Lazarus and Folkman’s Transactional Model of Stress and Coping, and use this to explain why Ivan and Hank may have appraised the situation (of moving to Australia) differently. 3 marks

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- c. Define approach strategies, using an example that could help Ivan reduce his levels of stress. 2 marks

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- d.** Evaluate the effectiveness of using an avoidance strategy to manage Ivan's stress of speaking English. 2 marks

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- e.** Hank is also experiencing stress. How would you differentiate stress from anxiety? 2 marks

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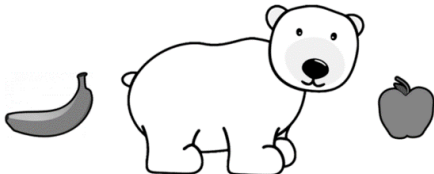

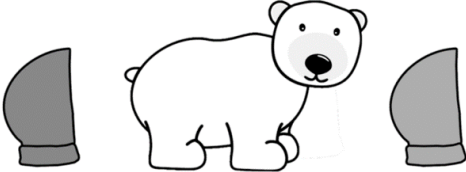

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**Question 3** (10 marks)

Researchers have found that children under three-years-old have greater limitations in their short-term memory capacity and duration when compared to adults. It appears that toddlers are unable to remember two choices sufficiently well to compare them and respond, so instead, they simply echo the last choice they hear.

In an experiment, 30 two-year-old toddlers from a local childcare centre were asked a set of 20 two-choice questions, without any prior context. The questions first involved a polar bear named Rori, and included questions such as, "Does Rori like to eat apples or bananas?". No prior information was given about Rori preferring to eat apples or bananas.

After the 20 questions were asked, the researchers then posed the questions over again to the same toddlers, but the order of the options was switched around, utilising a grizzly bear named Quinn; for example, "Does Quinn like to eat bananas or apples?". Again, no prior context about Quinn was provided.

 <p>Does Rori like to eat <b>apples</b> or <b>bananas</b>?</p>	 <p>Does Quinn like to eat <b>bananas</b> or <b>apples</b>?</p>
 <p>Are Rori's pants <b>tweed</b> or <b>khaki</b>?</p>	 <p>Are Quinn's pants <b>khaki</b> or <b>tweed</b>?</p>

In response to these questions, the toddlers picked the second option 85% of the time, and that was true no matter whether the bear was Rori or Quinn. The responses of the children led the researchers to conclude that toddlers' short-term memory is more limited than that of adults.

Adapted from [www.sciencealert.com/scientists-might-have-found-the-ideal-way-to-get-your-toddler-eating-what-you-want](http://www.sciencealert.com/scientists-might-have-found-the-ideal-way-to-get-your-toddler-eating-what-you-want)

a. Identify the dependent variable in the research investigation.

1 mark

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**b.** What type of experimental research design was used in the investigation? State one advantage of this design. 2 marks

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**c.** The study found that young children had a limited short-term memory. What is the typical adult capacity and duration of short-term memory? 2 marks

**Capacity:**

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**Duration:**

**d.** Predict the approximate percentage of times the second option would be chosen if 30 adults were asked the same 20 questions, also without any prior context about the bears, and use this to explain the conclusion the researchers made regarding the limited capacity and duration of the short-term memory of toddlers. 3 marks

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**e.** Discuss the validity of the results and the researchers' ability to generalise their findings. 2 marks

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**Question 4** (11 marks)

Leo has been involved in several car accidents, with the most recent one being particularly distressing. Six months ago, he hit a parked car, which resulted in him breaking his leg. However, his recollection of the event was that the accident was far more traumatic than it actually was; he thought that he had sustained multiple fractures, but in fact, he only sustained one.

It also upsets Leo that he has not fully recovered, mainly because he avoids doing the exercises recommended by his physiotherapist. Leo has been generally scared of driving, but since the most recent accident, he has been too afraid to drive at all, has avoided getting into cars as a passenger, and walks to places as much as possible. Just thinking about driving makes him feel very anxious.

- a. Explain what is meant by a cognitive bias, with reference to an example in the scenario. 2 marks

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- b. Leo is diagnosed with a specific phobia of cars. Explain how Leo’s phobia of cars may have been precipitated through classical conditioning. In your response, refer to all elements of classical conditioning. 6 marks

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- c. Explain how a psychologist could use cognitive behavioural therapy (CBT) to assist Leo with his phobia of cars. 3 marks

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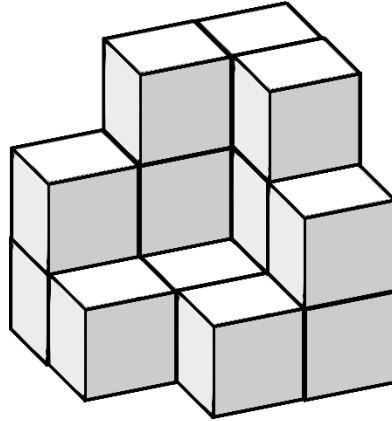
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**Question 5** (10 marks)

Dr Jung wanted to test the effect of age on a memory task. She presented a particular structure of 16 identical blocks (illustrated below) to 500 participants to memorise. Group A consisted of 250 Grade 1 students, and Group B consisted of 250 Year 12 students. She then knocked down the structure and asked the participants to replace all of the blocks to form the original block structure as quickly as they could.



Source: [https://www.clipartmax.com/middle/m2H7d3G6H7i8i8m2\\_find-the-area-of-a-rectangle-line-cuboid-tetris-toy-block-3d/](https://www.clipartmax.com/middle/m2H7d3G6H7i8i8m2_find-the-area-of-a-rectangle-line-cuboid-tetris-toy-block-3d/)

- a. Identify the method of retrieval that best describes the task that Dr Jung’s participants used. 2 marks  
Justify your answer.

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- b. Operationalise the independent variable of Dr Jung’s study. 2 marks

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- c. Which form of research design did Dr Jung employ? Justify your answer. 2 marks

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The results are presented in the table below.

	<b>Group A (Grade 1 students)</b>	<b>Group B (Year 12 students)</b>
<b>Average time taken (in seconds)</b>	200	14
<b>Standard deviation</b>	179	0.01

- d. What do the standard deviations suggest about the variability in participants' responses in Group A, as compared to Group B? 2 marks

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- e. Are Group A's results or Group B's results more reliable? Justify your answer. 2 marks

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**Question 6** (7 marks)

In her highchair, 14-month-old Millie finished her meal and threw her bowl onto the ground and smiled. This led both her mum and dad to laugh in surprise, because Millie was previously unable to hold the slippery bowl in her hands. Millie now throws her bowl onto the ground each time she finishes her meal.

- a. Using the language of operant conditioning, describe why Millie continues to throw her bowl onto the ground each time she finishes her meal. 4 marks

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- b. Describe how the central and somatic nervous systems coordinate Millie’s response of throwing her bowl onto the ground. 3 marks

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**VCE PSYCHOLOGY**  
 Written Examination  
**ANSWER SHEET – 2020**

**STUDENT  
 NAME:**

Use a **PENCIL** for **ALL** entries. For each question, shade the box which indicates your answer.  
 Marks will **NOT** be deducted for incorrect answers.  
**NO MARK** will be given if more than one answer is completed for any question.  
 If you make a mistake, **ERASE** the incorrect answer – **DO NOT** cross it out.

1	A	B	C	D	18	A	B	C	D	35	A	B	C	D
2	A	B	C	D	19	A	B	C	D	36	A	B	C	D
3	A	B	C	D	20	A	B	C	D	37	A	B	C	D
4	A	B	C	D	21	A	B	C	D	38	A	B	C	D
5	A	B	C	D	22	A	B	C	D	39	A	B	C	D
6	A	B	C	D	23	A	B	C	D	40	A	B	C	D
7	A	B	C	D	24	A	B	C	D	41	A	B	C	D
8	A	B	C	D	25	A	B	C	D	42	A	B	C	D
9	A	B	C	D	26	A	B	C	D	43	A	B	C	D
10	A	B	C	D	27	A	B	C	D	44	A	B	C	D
11	A	B	C	D	28	A	B	C	D	45	A	B	C	D
12	A	B	C	D	29	A	B	C	D	46	A	B	C	D
13	A	B	C	D	30	A	B	C	D	47	A	B	C	D
14	A	B	C	D	31	A	B	C	D	48	A	B	C	D
15	A	B	C	D	32	A	B	C	D	49	A	B	C	D
16	A	B	C	D	33	A	B	C	D	50	A	B	C	D
17	A	B	C	D	34	A	B	C	D					