

Trial Examination 2007

VCE Psychology Unit 4

Written Examination

Question and Answer Booklet

Reading time 15 minutes
Writing time 1 hour 30 minutes

Student's Name: _____

Teacher's Name: _____

Structure of Booklet

Section	Number of questions	Number of questions to be answered	Number of marks
A	44	44	44
B	20	20	46
			Total 90

Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers. Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape. No calculator is allowed in this examination.

Materials supplied

Question and answer booklet of 18 pages.
Answer sheet for multiple-choice questions.

Instructions

Please ensure that you write your **name** and your **teacher's name** in the space provided on this booklet and on your answer sheet for multiple-choice questions.

All written responses must be in English.

At the end of the examination

Place the answer sheet for multiple-choice questions inside the front cover of this booklet.

Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.

Students are advised that this is a trial examination only and cannot in any way guarantee the content or the format of the 2007 VCE Psychology Unit 4 Written Examination.

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SECTION A – MULTIPLE-CHOICE QUESTIONS

Instructions for Section A

Answer all questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

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

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

Area of study 1 – Memory

Question 1

Which of the following statements about memory is **true**?

- A. Individuals possess several different memory systems.
- B. It is possible to have no memory at all.
- C. All incoming stimuli are stored in the memory, but not all of them can be retrieved.
- D. All of the above.

Question 2

The process of converting information into a form that can be stored in the memory is known as

- A. storage.
- B. encoding.
- C. deliberation.
- D. labelling.

Question 3

Ms Warner's Psychology class is to be assessed on the topic of 'Learning'. She tells her students that she will be using the retention measure of recognition to gauge their memory.

The type of assessment task that Ms Warner should set is a(n)

- A. research report.
- B. essay.
- C. poster.
- D. multiple-choice test.

Question 4

Research conducted on the relative sensitivity of various measures of retention has found that _____ is the **most** sensitive.

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

Question 5

While watching a movie, Ahmed does not view one continuous image on the screen. Instead, many still images are projected onto the screen in rapid succession, interspersed with moments of black screen.

The operation of his _____ memory allows him to see these frames in a flowing, joined sequence.

- A. echoic
- B. iconic
- C. short-term
- D. long-term

Question 6

Information is stored in short-term memory for approximately

- A. three to five seconds.
- B. ten to twelve seconds.
- C. eighteen to twenty seconds.
- D. thirty to forty-five seconds.

Question 7

Claire's tutor advises her that an effective study technique to use is 'elaborative rehearsal'.

This involves

- A. repeating information verbally over and over again.
- B. writing out information over and over again.
- C. making the information meaningful by relating it to information already stored in the memory.
- D. condensing the amount of information to be used by chunking it.

Question 8

Tom will never forget that his first kiss was with a girl called Charlotte.

This long-term memory is a specific example of _____ memory.

- A. procedural
- B. declarative
- C. semantic
- D. episodic

Question 9

According to the Semantic Network Theory, retrieval of information occurs through the activation of a network of

- A. nodes.
- B. nerves.
- C. ideas.
- D. associations.

Question 10

The serial position effect describes the tendency to recall items at the beginning and end of a list, while forgetting those in the middle.

When recall is postponed for thirty seconds or more, however, the items at the _____ of the list are typically recalled **best**.

- A. beginning
- B. middle
- C. end
- D. beginning and end

Question 11

The theory behind the pattern of forgetting outlined by Ebbinghaus (1885) states that retaining information is influenced primarily by

- A. the degree of difficulty of the material.
- B. the learning ability of the individual.
- C. how well the material was encoded in the first instance.
- D. available memory capacity.

Question 12

Terry is trying to recall the number of wrestling matches that he has won during the course of his career, but he is having difficulty remembering this information.

Retrieval failure theory explains that the reason for his mental blank is

- A. too many hits to the head during his matches.
- B. because he is not using the right cues to access this information.
- C. an inability to follow the semantic network in his memory.
- D. loss of memory cells through the natural ageing process.

Question 13

Previously learned information may inhibit an individual's ability to recall new information.

This is known as

- A. tip-of-the-tongue phenomenon.
- B. retroactive interference.
- C. proactive interference.
- D. retrieval failure.

Question 14

Motivated forgetting due to repression occurs

- A. when an individual consciously dismisses useless information from memory.
- B. subconsciously to clear valuable space in the long-term memory for new information.
- C. any time positive memories take precedence over negative memories.
- D. as a defence mechanism to protect the individual from distressing memories.

Question 15

Anterograde amnesia results from the failure of information to travel from short-term to long-term memory systems.

It has been found that this is usually due to damage to the

- A. corpus callosum.
- B. cerebral cortex.
- C. temporal lobe.
- D. hippocampus.

Question 16

Amadeus was involved in a serious car accident, in which he sustained significant head injuries. In hospital, the neurologist warned that Amadeus would suffer from retrograde amnesia.

Typically, he would **not** be able to recall

- A. information from the period of time immediately before his accident.
- B. any information stored in his long-term memory prior to the accident.
- C. new information learned immediately following the accident.
- D. any information at all for a short time.

Question 17

The impact of ageing on short-term memory has been shown to mainly affect

- A. retrieval of lists of words.
- B. storage and manipulation of information.
- C. retrieval of incidents from childhood.
- D. retrieval of traumatic events.

Question 18

If context-dependent cues are a valuable tool in retrieving information, then it is best for Georgina to sit her Psychology exam

- A. at home where she feels most relaxed.
- B. in an exam hall where the atmosphere is one of focus.
- C. in the Psychology classroom where she first learned the information.
- D. when she is in the same frame of mind as when she studied the text.

Question 19

Narrative chaining is an important mnemonic device because it can

- A. organise the information that must be remembered.
- B. enable the information to become meaningful to the individual.
- C. help people to remember information in a particular order.
- D. all of the above.

Questions 20–22 relate to the following research scenario.

Dr June is planning a research experiment to test the effect of electric shock therapy on memory. She enlists the involvement of her first-year university students, who must participate as part of their assessment for the year. The experimental group will be given mild electric shocks before the commencement of every lecture, while the control group will not. Both groups will have their knowledge of the course tested by an end-of-semester exam.

Question 20

Two important features that Dr June must include in her operational hypothesis are

- A. how the variables will be manipulated and the population from which the sample will be drawn.
- B. a prediction of the outcome and an explanation of how extraneous variables will be accounted for.
- C. the allocation of participants to control and experimental groups, and the steps undertaken to ensure ethical guidelines are adhered to.
- D. who the participants will be and how they will be selected.

Question 21

For the results of Dr June's experiment to be considered statistically significant, a p value of no higher than _____ is required.

- A. 0.01
- B. 0.05
- C. 0.10
- D. 0.15

Question 22

Which of the following is an ethical principle that Dr June has breached in her experiment?

- A. confidentiality
 - B. deception in research
 - C. debriefing
 - D. voluntary participation
-

Area of study 2 – Learning**Question 23**

Which of the following is an example of ‘learned’ behaviour?

- A. A child crying in fear at a strange noise.
- B. A child answering the phone when it rings.
- C. The pet dog burying a bone in the backyard.
- D. A child running for the first time.

Question 24

During the acquisition stage of classical conditioning, the pairing of the conditioned stimulus (CS) and unconditioned stimulus (UCS) is **most** effective when

- A. the UCS is presented about 0.5 seconds after the CS.
- B. the CS is presented about 0.5 seconds after the UCS.
- C. the CS and UCS are presented at the same time.
- D. the CS is presented about five seconds after the UCS.

Questions 25–27 relate to the following scenario.

Ace Cat started a new routine when it was time to feed his pet bird (who lived inside the house). He would first stand in front of the kitchen sink, knock loudly on a nearby window, get some birdseed and place it on his hand just in front of his shoulder. The bird would fly, land on Ace’s shoulder and eat the seed out of his hand. After a week, Ace only needed to open the cage, stand in front of the sink and bang on the window, and the bird would land on his shoulder before even being presented with the birdseed.

Question 25

In this scenario, the birdseed was

- A. the UCS and CS.
- B. the UCS only.
- C. the CS only.
- D. neither the CS nor the UCS.

Question 26

The first time the bird landed on Ace’s shoulder to eat the food, the bird’s behaviour was

- A. the CR only.
- B. the UCR only.
- C. the CR and UCR.
- D. neither the CR nor the UCR.

Question 27

In order to extinguish the bird’s conditioned behaviour, Ace must

- A. cease to present the CR to the bird while banging on the window, for a number of trials.
- B. cease to present the CS to the bird while banging on the window, for a number of trials.
- C. cease to present the UCR to the bird while banging on the window, for a number of trials.
- D. cease to present the UCS to the bird while banging on the window, for a number of trials.

Question 28

According to Garcia's research on animal behaviour, animals who learn to avoid stimuli that threaten their survival (such as poisoned food) after just one experience will probably outlive animals who are unable to do so.

Garcia argued that in such cases this type of taste aversion conditioning

- A. is the same as Pavlov's model of classical conditioning.
- B. is different to Pavlov's model of classical conditioning.
- C. is the same as Skinner's model of operant conditioning.
- D. is an example of a fixed-action pattern.

Question 29

In terms of extinction

- A. both classically conditioned responses and behaviour learned from one-trial learning may be easily extinguished.
- B. both classically conditioned responses and behaviour learned from one-trial learning may be very resistant to extinction.
- C. classically conditioned responses may be particularly resistant to extinction, whereas behaviour learned from one-trial learning is easily extinguished.
- D. classically conditioned responses may be easily extinguished, whereas behaviour learned from one-trial learning is resistant to extinction.

Question 30

In Thorndike's puzzle box experiment, the cat's behaviour was instrumental to its obtaining food.

In this case, the cat demonstrated

- A. a learned association between the unconditioned stimulus and the conditioned stimulus.
- B. a learned association between behaviour and consequences.
- C. successful reproduction of behaviour observed from other cats.
- D. maturation.

Question 31

Operant conditioning can be defined as the modification of _____ behaviour through the use of _____ .

- A. voluntary; antecedents (the events that precede the behaviour)
- B. involuntary; antecedents
- C. voluntary; consequences
- D. involuntary; consequences

Question 32

Skinner's experiments with rats and pigeons aimed to illustrate the impact of

- A. vicarious learning.
- B. reinforcement.
- C. reflexive behaviour.
- D. learning set.

Question 33

Sniffer dogs who are rewarded when they detect the smell of marijuana in airport luggage, as opposed to other 'leafy' stimuli such as herbs, have most likely been trained using

- A. the classical conditioning process of stimulus discrimination.
- B. the operant conditioning process of stimulus discrimination.
- C. one-trial learning.
- D. observational learning.

Question 34

Phil Taylor averages five bullseyes a game in his weekly darts match. However, he only deliberately attempts to hit the bullseye occasionally and his success rate is twenty-five per cent of his attempts.

This is an example of

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

Questions 35 and 36 relate to the following scenario.

Scott is a Year 9 student who does ten subjects and receives a school report on his progress every six weeks.

Question 35

Scott's parents give him a fifty-dollar bonus each time his progress report shows he has been awarded at least five 'A' grades.

Which schedule of reinforcement are his parents using?

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

Question 36

At Scott's school, 'E' grades are only issued if a student fails to submit work on time. If Scott receives any 'E's then he is not allowed to watch television on the weekend.

This is an example of

- A. punishment.
- B. classical conditioning.
- C. negative reinforcement.
- D. partial reinforcement.

Question 37

Watson's experiment on 'Little Albert' was considered unethical because it failed to _____ at the conclusion of the experiment.

- A. provide withdrawal rights
- B. extinguish the conditioned response
- C. obtain informed consent
- D. adhere to the principles of voluntary participation

Question 38

On several occasions when Jasper went to retrieve his soccer ball from a particular daisy bush in the backyard, he was bitten by a bee. Eventually, Jasper would shake with fear whenever the soccer ball went into the bush and he would leave the ball there until one of his parents could retrieve it.

In this case

- A. both the shaking (with fear) response and the learning to avoid the daisy bush have been classically conditioned.
- B. both the shaking response and the learning to avoid the daisy bush have been operantly conditioned.
- C. the shaking response has been operantly conditioned and the avoidance of the daisy bush has been classically conditioned.
- D. the shaking response has been classically conditioned and the avoidance of the daisy bush has been operantly conditioned.

Question 39

Andrew used to drive his son Donald to school every day. Andrew would often become frustrated with other drivers; on one particular day he yelled at a driver and threw his empty soft drink can at the man's car. The other driver was, in fact, a policeman who consequently gave Andrew a ticket for 'road rage'. When Donald started driving, he never directed his anger at other drivers because of what had happened to his dad.

In this case, Donald has **most** likely learned to control his anger in the car by

- A. one-trial learning.
- B. classical conditioning.
- C. operant conditioning.
- D. observational learning.

Question 40

Zachary's dad Tiger bought him some golf clubs for his tenth birthday. Tiger tried to teach his son how to hit a chip shot by demonstrating how to grip the golf club, and how to complete the backswing and follow-through. When it was Zachary's turn he was unable to get the ball off the ground, mainly due to his lack of strength and the fact that his clubs were a bit too big for him.

Zachary's inability to hit the ball could **best** be explained by failure at the _____ stage of observational learning.

- A. attention
- B. retention
- C. reproduction
- D. motivation

Questions 41 and 42 relate to the following scenario.

Bandura conducted an experiment in which three groups of four-year-olds watched an adult model being aggressive with a large blow-up 'BoBo' doll. The children were then individually allowed to play with the doll.

Some children – group Z – saw the model receive no consequences for being aggressive.

Some children – group Y – saw the model punished for being aggressive.

Some children – group X – saw the model rewarded for being aggressive.

Question 41

Bandura concluded that

- A. learning can occur by observing behaviour that has no consequences for the model.
- B. girls and boys equally imitate aggressive behaviour after observing a model being aggressive.
- C. learning is only said to occur when the children imitate the aggressive behaviour.
- D. children are just as likely to imitate behaviour if the model is rewarded as if the model is punished for aggressive behaviour.

Question 42

Some children from each group were offered a reward for being aggressive with the doll, and their level of aggression was compared with that of children in their group who were not offered a reward.

It was found that

- A. only in groups X and Z did those offered a reward show more aggression than those not offered a reward.
- B. only in group Y did those offered a reward show more aggression than those not offered a reward.
- C. only in group Z did those offered a reward show more aggression than those not offered a reward.
- D. in all three groups, those offered a reward showed more aggression than those not offered a reward.

Question 43

Harlow found in his experiments that the monkeys improved their problem-solving ability by demonstrating the following steps in correct order.

- A. **First:** using a rule; **second:** trial-and-error experiences; **third:** insightful behaviour.
- B. **First:** trial-and-error experiences; **second:** insightful behaviour; **third:** using a rule.
- C. **First:** trial-and-error experiences; **second:** using a rule; **third:** insightful behaviour.
- D. **First:** insightful behaviour; **second:** trial-and-error experiences; **third:** using a rule.

Question 44

One way to compare learning set and operant conditioning is to examine the types of phenomena that theorists observed for both types of learning. Observable phenomena can be measured, whereas cognitive phenomena cannot be measured directly; rather, they involve the use of perception and memory in learning. Select the correct response from the following.

- A. Both operant conditioning and learning set theorists focused on cognitive phenomena.
- B. Both operant conditioning and learning set theorists focused on observable phenomena.
- C. Operant conditioning theorists focused on cognitive phenomena, while learning set theorists focused on observable phenomena.
- D. Learning set theorists focused on cognitive phenomena, while operant conditioning theorists focused on observable phenomena.

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

Answer **all** questions in the spaces provided.

Area of study 1 – Memory**Question 1**

Complete the table below, which outlines the different types of recall.

Type of recall	Description
Free recall	
Serial recall	
Cued recall	

3 marks

Question 2

- a. Why is short-term memory frequently referred to as ‘working memory’?

1 mark

- b. Norm, who is an accountant, can remember many of his clients’ nine-digit tax file numbers. He does this by _____ them into three sets of three-digit numbers; for example, 142 490 964.

1 mark

Question 3

According to the decay theory, how does ‘forgetting’ occur?

2 marks

Question 4

Outline **two** reasons why ageing may have a negative impact on long-term memory.

2 marks

Question 5

Describe the manner in which **elaboration** helps memory storage and retrieval.

2 marks

Question 6

Joyce is required to give an oral presentation on the history of Psychology. Describe **three** steps involved in the method of loci that she could utilise to help her remember her speech.

3 marks

Area of study 2 – Learning

Question 7

Define and give an example of a fixed-action pattern.

Definition:

Example:

2 marks

Question 8

When Meg was ten, she watched her mum hammer a nail into the wall for a picture frame. Meg then tried to hammer a nail into the wall and accidentally hammered the nail deeply into her little finger, causing a long-term injury. Now when she sees her mum with the hammer she cringes and feels tension in her stomach.

a. In this case, what is the unconditioned stimulus?

1 mark

b. Define ‘stimulus generalisation’ and use an example to explain how Meg might experience stimulus generalisation in this case.

2 marks

Question 9

According to Thorndike’s theory of an organism’s process for learning behaviour, the process involves a number of _____ and a number of _____ before the correct behaviour is learned.

2 marks

Question 10

After going to a party on a Saturday night a couple of months ago, Penny woke up with a headache. She took an aspirin, which got rid of the pain. Now, whenever Penny wakes up with a headache she immediately takes an aspirin to eliminate the pain.

a. In this case, what type of reinforcement is Penny using?

1 mark

b. Provide **one** similarity of punishment and reinforcement.

1 mark

c. Provide **one** difference between punishment and reinforcement.

1 mark

Question 11

Distinguish between operant conditioning and classical conditioning in terms of the relationship between the timing of the response and the stimulus.

Operant conditioning:

Classical conditioning:

2 marks

Question 12

Picasso, a guest artist, is giving a demonstration on painting landscapes to a Year 10 Art class.

Name and explain **two** factors that, according to Bandura, will affect the likelihood of students paying attention to Picasso.

2 marks

Area of study 3 – Research investigation

Read the following research study. All the questions that follow relate to this study. Answer all the questions.

- For her research project, Dr Agon decided to investigate in one school how the time of day of a lesson impacts on percentage recall of content.
- She obtained consent from a group of participants, who received parental permission to participate in a simple memory experiment.
- The participants consisted of thirty Year 10 students, whose names were pulled out of a hat (which contained the names of all 130 students in Year 10).
- She devised a list of thirty three-letter nonsense syllables; for example, DEX, LOK, ZEM.
- She divided these into two lists of fifteen items, based on the first letter of the three syllables. The first list, List A, all began with letters A through M; for example, BAK, DOK, FEP. The second list, List Z, all began with letters N through Z; for example, RIX, TET, ZAY.
- Participants learned the lists in their home-rooms at roll-call time. They had five minutes to learn each list. List A was learned at 8.30 am on Tuesday and List Z was learned at 3.30 pm on Wednesday.
- Two weeks after the initial learning period, the participants were tested in the assembly hall at 8.30 am. Dr Agon asked the participants to write down as many nonsense syllables as they could remember. The results are shown in Table 1 below.

Table 1: Number of nonsense syllables remembered in each list.

Time learned	Mean		Range
	Out of 15	%	
8.30 am	10.4	69.3	4 to 13
3.30 pm	6.1	40.7	3 to 11

- Results of the experiment found that $p < 0.05$ (the measure of the differences between the percentage of morning recall and percentage of afternoon recall).
- Results were published in the *Australian Journal of Psychology*, identifying the names and results for each of the thirty students tested.
- Dr Agon concluded that material learned in the morning was remembered better than material learned in the afternoon.
- Hence, Dr Agon stated: ‘School lessons should be restricted to the morning hours of 8.30 am to 12 noon’.

Question 13

- a. Identify the dependent variable.

1 mark

- b. Identify the independent variable.

1 mark

Question 14

Write an operational hypothesis for this study.

2 marks

Question 15

Using evidence from the scenario, explain why Dr Agon's research is, in fact, an experiment.

1 mark

Question 16

a. What sampling procedure was attempted in this investigation?

1 mark

b. What is a limitation of this sampling method?

1 mark

c. Describe an alternative sampling method.

1 mark

Question 17

What is the measure of variability that has been used in this experiment?

1 mark

Question 18

a. What statistical conclusion can be made from the results?

1 mark

- b. Provide **two** possible explanations for the researcher's inability to generalise the results of the experiment to the wider population.

2 marks

Question 19

- a. Identify **one** participant right (an ethical responsibility for the researcher) to which the experiment has **adhered** (that is, complied with).

1 mark

- b. Identify and discuss **one** participant right that the experiment has **breached** (that is, **not** complied with).

2 marks

Question 20

- a. Dr Agon's experiment has been criticised for being flawed as it contains an 'experimenter effect'. Discuss what is meant by this term.

1 mark

- b. Identify the procedure used to minimise the experimenter effect.

1 mark

- c. Explain how the procedure conducted in part (b) could be utilised in Dr Agon's experiment.

1 mark

END OF QUESTION AND ANSWER BOOKLET