



Victorian Certificate of Education 2006

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

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PSYCHOLOGY

Written examination 2

Thursday 2 November 2006

Reading time: 9.00 am to 9.15 am (15 minutes)

Writing time: 9.15 am to 10.45 am (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	44	44	44
B	16	16	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 book of 19 pages.
- Answer sheet for multiple-choice questions.

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- 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.

AREA OF STUDY 1 – MEMORY**Question 1**

Many students complain that they study for an exam and know the material well but later, when they are in the exam, they are unable to recall the information.

This is most likely due to difficulty with

- A. encoding.
- B. storage.
- C. retrieval.
- D. short-term memory.

Question 2

The process by which sensory information is converted into a form that can be stored by the memory system is known as

- A. working memory.
- B. retrieval.
- C. storage.
- D. encoding.

Question 3

The most sensitive measure of memory is

- A. recognition.
- B. recall.
- C. re-learning.
- D. remembering.

Question 4

When Lawrence was at high school, he took ten months to learn a list of Italian vocabulary. Ten years later, he decided to relearn the same information and it took him two months to learn the material to the same level he learned it at high school.

The saving Lawrence has made in re-learning the material is

- A. 100%
- B. 20%
- C. 80%
- D. 50%

Question 5

A person is more likely to be consciously aware of a memory when it is in _____ than in _____.

- A. sensory memory; short-term memory
- B. long-term memory; short-term memory
- C. short-term memory; sensory memory
- D. sensory memory; long-term memory

Question 6

Sensory memory is generally thought of as having _____ capacity and _____ duration.

- A. large; short
- B. large; long
- C. small; long
- D. small; short

Question 7

In comparison with iconic memory, echoic memory has _____ duration.

- A. similar
- B. unlimited
- C. shorter
- D. longer

Question 8

Information in short-term memory, at any given time, typically consists of

- A. information from sensory memory only.
- B. information from sensory memory and long-term memory.
- C. information from long-term memory only.
- D. information from neither sensory nor long-term memory.

Question 9

Chunking is a useful way of enhancing memory.

Chunking works by

- A. increasing the period of time information is in short-term memory.
- B. increasing the period of time information is in long-term memory.
- C. increasing the capacity of long-term memory.
- D. increasing the capacity of short-term memory.

Question 10

Ethan is deciding whether to catch the bus or walk to school.

According to Baddeley's theory of working memory, the subsystem mainly responsible for Ethan's decision making is

- A. the phonological loop.
- B. the visuospatial sketchpad.
- C. the central executive.
- D. the articulatory control system.

Question 11

In order to pass from short-term memory to long-term memory, information must be

- A. chunked.
- B. encoded.
- C. meaningful.
- D. useful.

Question 12

Which one of the following is an example of an elaborative rehearsal that could be used to learn the names of a group of people?

- A. writing a list of names
- B. looking at each face and saying the name over and over
- C. rehearsing the names in alphabetical order
- D. reading the names many times

Question 13

Which one of the following statements about semantic network theory is **not** true?

- A. Grouping of information in long-term memory is based on meaning.
- B. Concepts with strong relationships have strong links.
- C. Retrieval of a memory may trigger retrieval of other linked memories.
- D. Only meaningful material can be stored in long-term memory.

Question 14

You are trying to learn a speech.

In order to increase your chances of recalling the whole speech from memory, you should give extra practice time to the

- A. middle of the speech.
- B. beginning of the speech.
- C. end of the speech.
- D. beginning and end of the speech.

Question 15

Adam is looking through his atlas for a suitable outline map of New Zealand to trace.

His ability to recognise New Zealand is a function of his

- A. geographical memory.
- B. procedural memory.
- C. semantic memory.
- D. episodic memory.

Question 16

Which one of the following is a possible explanation of why forgetting occurs?

- A. Suitable retrieval cues are not used.
- B. Memory fades through overuse over time.
- C. Material has been attended to in short-term memory.
- D. The subject is motivated to remember.

Question 17

Caitlin suffered a head injury after a bicycle accident. Caitlin's doctor told her that she was experiencing anterograde amnesia.

The doctor may have come to this conclusion based on Caitlin's

- A. difficulty forming new social relationships.
- B. inability to remember getting ready for work before the accident.
- C. ability to recognise her family members.
- D. epileptic seizures following the accident.

Question 18

Which one of the following is **not** an expected effect of ageing on memory?

- A. taking longer to develop new skills
- B. decline in episodic memory
- C. decline in procedural memory
- D. slowed retrieval of information from memory

Question 19

Melina witnessed a bank robbery. Afterwards Melina had difficulty describing the robbery to the police. The police suggested that taking her back to the site of the robbery may help her recall what happened.

This is an example of the use of

- A. state dependent cues.
- B. context dependent cues.
- C. mnemonic devices.
- D. elaborative rehearsal.

Question 20

Georgia uses the method of loci to memorise a shopping list.

One way she could do this would be to

- A. create a map to find her way to the supermarket.
- B. visualise each item on her list with different landmarks on the way to school.
- C. recall items on her list according to their normal locations in her house (for example, milk in the fridge, shampoo in the shower).
- D. look out of the window of her bus and learn the landmarks on the way to school.

Questions 21 and 22 relate to the following information.

Dr Dalling is conducting a university classroom exercise on the effect of pain on the recall of information. She follows accepted ethical guidelines to obtain informed consent from 40 adults.

Group 1 is given a list of words to memorise, and asked to recall them in the order in which they were learnt.

Group 2 is given the same list of words to memorise, but is given a painful pinprick on the back of the hand every two minutes while attempting to learn the words.

The participants are then asked to recall the words in the order in which they were learnt.

Dr Dalling's prediction is that Group 2 will recall more words than Group 1.

Question 21

The ethical principle that Dr Dalling has **not** adhered to is

- A. confidentiality.
- B. informed consent.
- C. parental consent.
- D. beneficence.

Question 22

Dr Dalling's operational hypothesis for this study would be

- A. participants who recall fewer words will, most likely, have experienced pain while learning.
- B. participants in Group 2 will remember more words than participants in Group 1.
- C. participants who experience a painful pinprick on the back of the hand while memorising information will recall fewer words than participants who do not experience a painful pinprick on the back of the hand while memorising the same information.
- D. participants who experience a painful pinprick on the back of the hand while memorising a list of 40 words will recall more words than participants who do not experience a pinprick.

AREA OF STUDY 2 – LEARNING

Question 23

Which one of the following behaviours is a learned behaviour?

- A. a baby crawling
- B. a spider spinning a web
- C. a person's fear of spiders
- D. pulling your hand away after touching a hot object

Question 24

Fixed action patterns

- A. are usually simple responses to direct stimulation.
- B. occur less frequently in mammals than in birds and fish.
- C. involve both classical and operant conditioning.
- D. are not genetically programmed.

Question 25

In Pavlov's original experiments, a conditioned response that had been extinguished was seen again when the _____ was delivered again. This reappearance of the conditioned response is known as _____.

- A. unconditioned stimulus; spontaneous recovery
- B. conditioned stimulus; reverse extinction
- C. conditioned stimulus; spontaneous recovery
- D. unconditioned stimulus; reverse extinction

Question 26

One-trial learning, particularly in the context of taste aversion, is often argued to differ from classical conditioning because

- A. in classical conditioning the conditioned response often takes a long time to appear, whereas in one-trial taste aversion, the conditioned response always occurs immediately.
- B. stimulus generalisation is less likely to occur with one-trial taste learned responses than classically conditioned responses.
- C. one-trial learned responses are acquired more slowly than classically conditioned learned responses.
- D. one-trial learned responses are generally extinguished more quickly than classically conditioned responses.

Question 27

Influential research on one-trial conditioned taste aversion in a variety of animal species was pioneered by John Garcia.

This research supports the notion that one-trial conditioned taste aversion

- A. demonstrates the powerful effect of punishment on animal behaviour.
- B. is the same as classical conditioning.
- C. has an adaptive survival value for animals.
- D. shares many features with negative reinforcement.

Question 28

Thorndike's law of effect

- A. is based on the process of instrumental learning.
- B. directly led to Pavlov's research on classical conditioning.
- C. explains only the strengthening of behaviours.
- D. explains only the effect of 'annoying' consequences of behaviour.

Question 29

The word 'operant' in Skinner's operant conditioning refers to

- A. the environment in which an organism is conditioned.
- B. the process by which an organism learns to discriminate between different types of reinforcers.
- C. an organism's response or behaviour that acts on the environment and leads to some sort of outcome.
- D. the positive or negative outcome of an organism's behaviour.

Question 30

In Skinner's original experiments, the behaviour of an animal when first placed in an operant chamber was

- A. instrumental.
- B. random.
- C. reinforced.
- D. punished.

Question 31

Jamie has a part-time job in a local takeaway food store. She is paid every second Thursday. This is an example of a _____ schedule of reinforcement.

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

Question 32

Which schedule of reinforcement results in the slowest acquisition of behaviour?

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

Question 33

When Liam misbehaves, his parents take his television away for a period of time.

This is an example of

- A. punishment.
- B. negative reinforcement.
- C. positive reinforcement.
- D. modelling.

Question 34

On a recent visit to the doctor, Jasmine was given a painful injection. Since then, Jasmine not only refuses to go to the same doctor, but also will not go to see any doctor or dentist.

Jasmine's refusal behaviour is an example of

- A. stimulus generalisation.
- B. stimulus discrimination.
- C. punishment.
- D. extinction.

Question 35

In trying to defend the ethics of Watson's 'Little Albert' experiment, it is argued that the knowledge gained about the development of phobias from this experiment clearly outweighed the negative impact on Little Albert.

This argument is based on the ethical principle of

- A. respect.
- B. beneficence.
- C. integrity.
- D. justice.

Question 36

Classical conditioning differs from operant conditioning in that

- A. the learner plays a more active role in acquiring the new behaviour in classical conditioning.
- B. reinforcement is more likely to occur in classical conditioning.
- C. the response almost always occurs prior to the stimulus in classical conditioning.
- D. the response in classical conditioning is reflexive.

Question 37

Which one of the following elements is associated with learning by operant conditioning, but not by classical conditioning?

- A. extinction
- B. punishment
- C. stimulus discrimination
- D. acquisition

Question 38

Behaviours learned through classical conditioning, when compared with behaviours learned through operant conditioning, are more likely to be

- A. deliberate.
- B. goal directed.
- C. unintentional.
- D. conscious.

Question 39

Bandura's Bo-Bo doll experiments found

- A. rewarding children for imitating the adult model's behaviour had little effect on the children's behaviour.
- B. that what happened to the adult model had little impact on children's behaviour.
- C. that children were less likely to imitate the adult model if they had observed the adult model being punished.
- D. no difference between boys and girls in terms of their behaviour after watching the adult models.

Question 40

In interpreting the results of his Bo-Bo doll experiments, Bandura argued that

- A. there is no distinction between learning a behaviour and performing that learned behaviour.
- B. observational learning is a special type of operant conditioning.
- C. observational learning does not take place totally independently from operant conditioning.
- D. operant conditioning and observational learning cannot operate together.

Question 41

Which one of the following processes involved in observational learning generally occurs first?

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

Question 42

Simon is a skilled soccer player who specialises in taking free kicks. In trying to improve this skill, he closely watches tapes of the famous soccer player David Beckham taking free kicks. Simon remembers David Beckham's actions very clearly, and copies him closely when taking his free kicks for goals. Unfortunately for Simon, the number of goals he scores after watching David Beckham decreases.

Based on this outcome, which observational learning process would play the strongest role in influencing Simon's likelihood of **continuing** to take his free kicks for goal in this way?

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

Question 43

Some famous experiments on **learning set** in monkeys, for example those carried out by Harlow, found that

- A. once the monkeys had learned to locate food at a particular location, they persisted in searching for the food at that location, long after the behaviour should have been extinguished.
- B. monkeys were able to learn a rule that helped them solve future problems.
- C. learning set in monkeys is a special type of stimulus generalisation.
- D. monkeys, unlike humans, were unable to demonstrate insightful behaviour.

Question 44

Nancy has played carpet bowls for the last ten years. She decides to play lawn bowls for the first time and experiences a positive transfer of learning.

This means that the

- A. skills needed for carpet bowls hindered her ability to learn the skills for lawn bowls.
- B. skills needed for carpet bowls helped her ability to learn the skills for lawn bowls.
- C. rules of carpet bowls are different from the rules of lawn bowls.
- D. rules of carpet bowls are practically the same as the rules of lawn bowls.

CONTINUED OVER PAGE

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

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

AREA OF STUDY 1 – MEMORY**Question 1**

Karlee's friend tells her the name and address of a great new music store. Karlee does not have a pen or paper to write down the information, so she repeats it over and over to herself.

- a. In which memory system is the address of the music store being rehearsed?

1 mark

- b. Name a mnemonic technique Karlee could use to increase her chances of being able to remember the name and address of the music store in a week's time. Explain how Karlee would apply this technique to the information.

Name _____

Explanation _____

2 marks

Question 2

After spending one hour studying for his learners permit test, Connor went to watch an exciting football match. With reference to the consolidation theory, what effect would watching the football match have on his ability to recall the learners permit test information the following morning?

3 marks

Question 3

The component of working memory known as the _____ holds verbally produced sounds and words, while the component of working memory known as the _____ allows visual images to be held temporarily.

2 marks

Question 4

Olga is a happy, active and healthy 70-year-old woman. At a school reunion an old friend asks if she can remember an incident that occurred at Olga's 21st birthday party. However, Olga is unable to remember the event.

- a. Explain why Olga may have forgotten **this** incident in terms of both decay theory and motivated forgetting theory.

1. decay theory

2. motivated forgetting theory

4 marks

Olga's inability to remember the incident might be due to retrieval failure.

- b. With reference to semantic network theory, how could Olga improve her ability to remember the incident?

2 marks

AREA OF STUDY 2 – LEARNING

Question 5

Elise is walking along a busy street listening to her favourite song on her MP3 player. She accidentally steps on to the road and is narrowly missed by a bus driving past. Elise is very upset, and for several days afterwards her hands shake, and she finds herself bursting into tears. A week later, after these symptoms have subsided, Elise is listening to the radio while lying in bed. She hears her favourite song again and her hands start shaking and she starts crying.

- a. What sort of conditioning has occurred to cause Elise to cry when she hears the song a week after the near accident?

1 mark

- b. In this scenario, what is the

i. conditioned stimulus? _____

ii. conditioned response? _____

iii. unconditioned stimulus? _____

iv. unconditioned response? _____

1 + 1 + 1 + 1 = 4 marks

A month later, another band releases a new version of Elise's favourite song. When Elise hears this version of her favourite song, she bursts into tears and her hands start shaking.

- c. This is an example of

1 mark

After a year, Elise can listen to any version of her favourite song without any reaction. She does not burst into tears and her hands do not shake.

- d. These reactions are now no longer present because of the process of

1 mark

Question 6

Define **and** give an example of negative reinforcement.

Definition _____

Example _____

2 marks

Question 7

With reference to Thorndike's puzzle box experiments, explain the relationship between trial and error learning and instrumental learning.

2 marks

Question 8

Jackie and John have a two-year-old son. One morning the two year old misbehaves and Jackie tells him to 'wait until your father gets home'. Later that evening, when John arrives home from work, he takes his son aside and smacks him for his poor behaviour earlier that day.

- a. With reference to operant conditioning, give **two** reasons why Jackie and John's punishment of their son is most likely to be ineffective.

1. _____

2. _____

2 marks

- b. Give an example, using positive reinforcement, that Jackie and John could use to deal with their son's behaviour.

1 mark

AREA OF STUDY 3 – RESEARCH INVESTIGATION

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

Testing the Mozart effect

Previous research has shown that listening to certain types of classical music (for example, a Mozart concerto) may increase performance on spatial-temporal tasks for a short period of time. However, this research has been disputed.

Professor Williams aims to investigate the effect of classical music on a spatial-temporal task that involves paper folding and cutting. He plans to find out if the effect exists for VCE students at Lake Hilltop Secondary College, a coeducational country school.

Professor Williams recruits participants who are studying VCE at the school. He asks the first 40 students that visit the library to participate. All 40 students provide signed informed consent.

The participants sit quietly for 20 minutes and then attempt the first paper folding and cutting test (Condition 1).

The same participants then listen to classical music for the next 20 minutes. Immediately afterwards they complete a similar paper folding and cutting test (Condition 2).

Professor Williams asks a teacher, who does not know which test relates to which condition, to mark the tests.

The results are as follows.

Condition 1 (control): Mean test score = 8

Condition 2 (listening to classical music): Mean test score = 12

A statistical test on these results found that $p < 0.05$

Question 9

For this study, what is the

- i. independent variable?

- ii. dependent variable?

1 + 1 = 2 marks

Question 10

Construct an operational research hypothesis for this study.

2 marks

Question 11

- a. Was random sampling used in this study? Explain your answer.

1 mark

- b. Why is random sampling often a preferred sampling technique?

1 mark

Question 12

- a. Name the experimental design used in this study.

1 mark

There is a basic flaw in the method of this study.

- b. Name this flaw, and clearly explain how it could have affected the results.

Name _____

Explanation _____

2 marks

- c. Name and describe one method of overcoming this design flaw.

Name _____

Description _____

2 marks

Question 13

Outline the withdrawal rights that the participants are entitled to both during and after the study.

2 marks

Question 14

Are the results statistically significant?

1 mark

Question 15

What conclusion can be made about the population from which the sample is drawn? Explain.

2 marks

Question 16

Professor Williams writes a formal research report. List **two** main points of information he should include in the discussion section of his report on this study.

1.

2.

2 marks