



Victorian Certificate of Education 2005

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STUDENT NUMBER

Letter

Figures

Words

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PSYCHOLOGY

Written examination 2

Thursday 3 November 2005

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	22	22	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 18 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**

Mark performs much better on multiple-choice tests than on open-ended short-answer questions.

This effect is due to Mark benefiting from which form of retrieval from the long-term store?

- A. recognition
- B. recall
- C. retroactive
- D. procedural

Question 2

Short-term memory

- A. is often regarded as working memory.
- B. contains information not attended to in sensory memory.
- C. is resistant to interference.
- D. is limitless in capacity.

Question 3

When I ring my colleague who lives in the United States I first recall the four digit international dialling code, then the two digit country code and finally his eight digit telephone number. Using this procedure I am able to hold 14 digits in my working memory.

This ability is an example of increasing the length of working memory by using

- A. maintenance rehearsal.
- B. chunking.
- C. narrative chaining.
- D. the method of loci.

Question 4

When playing football, David becomes unconscious from a hard knock to the head. When he recovers, he can not remember anything that happened five minutes before he was knocked. A failure in _____ best describes why David cannot recall this information.

- A. consolidation
- B. semantic memory
- C. the central executive
- D. his tip-of-the-tongue ability

Question 5

The part of working memory that allows us to picture where we have just placed an item is known as the

- A. articulatory loop.
- B. central executive.
- C. visuo-spatial sketchpad.
- D. phonological loop.

Question 6

According to Baddeley's model of working memory

- A. storage capacity and the processing of complex information are the same thing.
- B. storage capacity and the processing of complex information are both due to the action of the phonological loop or visuo-spatial sketchpad.
- C. storage capacity and the processing of complex information are both due to the action of the executive.
- D. storage capacity is due to the phonological loop or visuo-spatial sketchpad and the processing of complex information is due to the function of the executive.

Question 7

Remembering the name of the breed of your horse is an example of _____ memory; remembering the first time you rode your horse is an example of _____ memory; and your memory of how to ride your horse is an example of _____ memory.

- A. episodic; semantic; declarative
- B. long-term; short-term; sensory
- C. semantic; procedural; episodic
- D. semantic; episodic; procedural

Question 8

Declarative memory involves either _____ or _____ memory.

- A. iconic; echoic
- B. semantic; episodic
- C. anterograde; retrograde
- D. sensory; working

Question 9

John travels on planes frequently for business. Each time he sits in a different seat. On his most recent flight, John leaves his seat to use the toilet.

John's ability to recall where his seat is when he returns from the toilet relies mainly on his

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

Question 10

According to semantic network theory

- A. information moves from sensory, to short-term, to long-term memory.
- B. information in long-term memory is stored and organised according to meaningful groupings.
- C. visual material is processed by the visuo-spatial sketchpad.
- D. procedural memories are forgotten more readily than semantic memories.

Question 11

In a research study participants are often asked to learn a long list of words. The participants generally recall only the first and the last few words rather than the words in the middle of the list.

This effect is called the

- A. primacy effect.
- B. recency effect.
- C. serial position effect.
- D. semantic network effect.

Question 12

Part of the effect, described in Question 11 above, occurs because

- A. the first items are still in short-term memory.
- B. the middle items have been rehearsed.
- C. the last items are in long-term memory.
- D. the first items have been rehearsed.

Question 13

Kathleen has had an answering machine in her office for the last two years. Recently Kathleen also bought a machine for her home. The two machines use different keys to save, delete or play messages. After a busy week at work, Kathleen has a lot of trouble remembering the correct keys for her machine at home.

This problem is due to

- A. proactive interference.
- B. retroactive interference.
- C. anterograde amnesia.
- D. retrograde amnesia.

Question 14

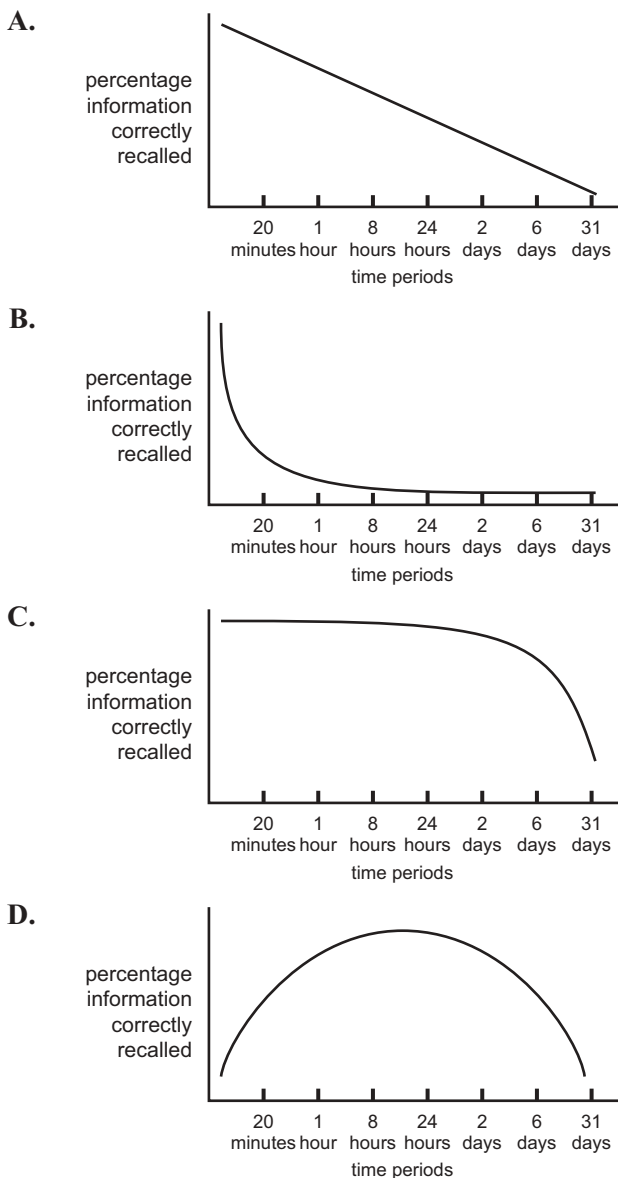
Kathleen finally works out how to correctly use her machine at home; however, when she returns to work the next day, she confuses the numbers for the functions on the machine at work with the numbers of her home machine.

This problem is due to

- A. proactive interference.
- B. retroactive interference.
- C. anterograde amnesia.
- D. retrograde amnesia.

Question 15

Which one of the following graphs most closely matches Ebbinghaus's forgetting curve?

**Question 16**

Which of the following is **not** an organic cause of forgetting?

- A. long-term alcohol abuse
- B. damage to the hippocampus
- C. malnutrition
- D. motivated forgetting

Question 17

In 1996, when he was 40 years old, Charles suffered a stroke. When I interviewed him yesterday, Charles believed that Bill Clinton was the President of the United States, the Olympics were being held in Atlanta and that he was still 40 years old.

Charles is suffering from

- A. retrograde amnesia.
- B. proactive interference.
- C. retroactive interference.
- D. anterograde amnesia.

Questions 18, 19 and 20 relate to the following information.

Mrs Cunningham is a fit and healthy 80 year old. However, Mrs Cunningham's performance on memory tasks has declined over the past 10 years.

Question 18

Her performance on which of the following memory tasks is most likely to show a decline?

- A. echoic memory
- B. recall
- C. recognition
- D. recall and recognition

Question 19

Mrs Cunningham's memory decline is most likely a result of

- A. slowing of the central nervous system.
- B. motivated forgetting.
- C. decay.
- D. overconfidence in her ability to remember.

Question 20

Mrs Cunningham is more likely to experience memory decline in

- A. procedural memory.
- B. sensory memory.
- C. iconic memory.
- D. declarative memory.

Question 21

Georgia is giving a statement to the police about a crime she witnessed. In an attempt to recall accurately the crime, she is encouraged to re-experience her physiological and psychological conditions during the time the crime was committed.

She is using _____ to help her recall the crime.

- A. the method of loci
- B. narrative chaining
- C. context dependent cues
- D. state dependent cues

Question 22

In an experiment looking at sex differences in working memory, which of the following is most probably a significant result?

- A. $p < 0.01$
- B. $p < 0.1$
- C. $p > 0.05$
- D. $p > 0.01$

AREA OF STUDY 2 – LEARNING

Question 23

Which of the following is **not** an example of a fixed action pattern?

- A. birds migrating in winter
- B. a spider weaving its web
- C. a dog shaking itself after a bath
- D. sneezing to clear the nose

Question 24

The sea hare is an animal that has been closely studied in experiments on learning by Eric Kandel.

In the experiments Kandel squirts water at the siphon (mouth) of the sea hare, which makes it withdraw its gills.

When the sea hare withdraws its gills after being squirted the first time, it is demonstrating

- A. a reflex.
- B. a fixed action pattern.
- C. a maturational effect.
- D. classical conditioning.

Question 25

Babies develop the ability to walk largely through

- A. maturation.
- B. reflex.
- C. classical conditioning.
- D. a fixed action pattern.

Question 26

The light switch in Eloise's bedroom is faulty so that every time she touches the switch she receives a mild electric shock. After this has happened a few times, Eloise associates light switches with a startle response.

In this scenario, the unconditioned stimulus is

- A. the light switch.
- B. Eloise's bedroom.
- C. the electric current.
- D. the startle response.

Question 27

In the terminology of classical conditioning, stimuli and responses that do not require any learning are referred to as

- A. unconditioned.
- B. conditioned.
- C. responsive.
- D. spontaneous.

Question 28

In John Watson's famous study, Little Albert was conditioned to fear rats by associating them with an unpleasant loud noise.

If Little Albert had then been repeatedly exposed to the white rat, but without the noise, his fear response would have

- A. become stronger.
- B. been extinguished.
- C. generalised to all white furry objects.
- D. spontaneously recovered.

Question 29

On a recent very rough trip on the ferry to Tasmania, Harry was eating crayfish in the dining room and became very seasick. Harry now finds he feels nauseated whenever he sees a crayfish.

Harry's nausea is probably a result of

- A. negative reinforcement.
- B. punishment.
- C. conditioned taste aversion.
- D. a learning set.

Question 30

One of Thorndike's most important findings from his experiments on cats in puzzle boxes was that

- A. punishment was very effective in modifying the cats' behaviour.
- B. the cats' behaviour was easy to negatively reinforce.
- C. the cats learned to obtain a reward through trial and error.
- D. the cats' behaviour was difficult to reinforce.

Question 31

Thorndike's notion that behaviours that are reinforced tend to be repeated is known as

- A. the punishment principle.
- B. the law of effect.
- C. Pavlovian conditioning.
- D. negative reinforcement.

Question 32

In operant conditioning an important connection forms between the

- A. unconditioned stimulus and the conditioned stimulus.
- B. stimulus and whatever occurs before it.
- C. unconditioned stimulus and the unconditioned response.
- D. behaviour and the reinforcement that follows it.

Question 33

Many of Skinner's original experiments used

- A. an operant conditioning chamber.
- B. a Pavlovian conditioning laboratory.
- C. children.
- D. cats in puzzle boxes.

Question 34

In Skinner's original experiments, which schedule of reinforcement led to the most rapid acquisition of learned behaviour?

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

Question 35

In Skinner's original experiments, behaviour that had been conditioned by which type of schedule was found to be the most difficult to extinguish?

- A. variable schedule
- B. fixed schedule
- C. continuous reinforcement schedule
- D. punishment schedule

Question 36

Which type of learning is seen as discouraging bad behaviour instead of encouraging positive behaviour?

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

Question 37

In classical conditioning, the learned response is _____, while in operant conditioning the learned response is _____.

- A. voluntary; reflexive
- B. spontaneous; involuntary
- C. reflexive; voluntary
- D. involuntary; reflexive

Question 38

Kenja wants to train her daughter Kellie to say the word 'butter'. In the beginning she rewards Kellie for saying 'bu'. When she is consistently saying 'bu', Kenja starts to reward Kellie for saying 'bud', and then 'budder'. Finally after a series of these steps Kellie consistently says 'butter'.

Kellie is being trained using the behavioural principle of

- A. classical conditioning.
- B. negative reinforcement.
- C. extinction.
- D. shaping.

Question 39

Dorian has always wanted to study jazz ballet but is concerned that he may not have the talent to be successful. He practises at home imitating the dance moves from the movie 'Too Much Jazz' as an example.

Dorian's strategy for studying jazz ballet relies on the principle of

- A. maturation.
- B. classical conditioning.
- C. learning set.
- D. modelling.

Question 40

If you are using operant conditioning principles to train a dog, then any punishment you deliver should be administered _____ an unwanted response from the dog. Any reward you administer should be administered _____ a desired response from the dog. If you are using classical conditioning to train a dog, the conditioned stimulus should be administered _____ the dog's response.

- A. after; after; after
- B. after; before; after
- C. after; after; before
- D. before; before; after

Questions 41 and 42 relate to the following scenario.

Reginald carefully watches his golf coach hit the ball so that he can improve his own golf game. His golf coach is a champion golfer and Reginald is trying to copy his coach's swing.

Question 41

Reginald wants to improve his golf game to impress his parents.

This relates to which factor that might influence Reginald's learning?

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

Question 42

Reginald is nearly 30 cm shorter than his coach.

This relates to which factor that might influence Reginald's learning?

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

Question 43

Bandura's experiments with observational learning in children indicate that

- A. those children who watched an aggressive model being reinforced were more likely to behave aggressively than those who watched an aggressive model being punished.
- B. those children who watched an aggressive model being punished were more likely to behave aggressively than those who watched an aggressive model being reinforced.
- C. those children who watched an aggressive model being reinforced were less likely to behave aggressively than those who watched an aggressive model being punished.
- D. observing an aggressive model has little or no influence on a child's behaviour.

Question 44

Research on learning set in monkeys has found that

- A. unlike humans, monkeys cannot develop a learning set.
- B. monkeys can 'learn how to learn'.
- C. monkeys consistently choose a stimulus on the basis of its position.
- D. monkeys' learning does not improve over time.

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

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

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

Describe **two** differences between sensory memory and short-term memory.

2 marks

Question 2

I am trying to remember the names of the 25 children in my class. I have photos of each child holding up their names on pieces of paper.

- a. Describe a procedure for memorising the children's names using maintenance rehearsal.

1 mark

- b. Describe a procedure for memorising the children's names using elaborative rehearsal.

1 mark

Question 3

- a. According to decay theory, why are some memories forgotten?

1 mark

- b. Describe one criticism of decay theory. Clearly explain why this criticism does not support decay theory.

2 marks

SECTION B – AREA OF STUDY 1 – continued

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Question 4

Compare retrieval failure theory and interference theory in terms of forgetting.

2 marks

Question 5

Use an example to explain the mnemonic technique 'method of loci'. Describe the type of material that is most suitable for memorising using this technique.

3 marks

Question 6

Professor Allan has developed a new technique to improve memory in children. Her technique is called the Allan Technique. She has a strong theoretical belief that the Allan Technique will lead to better recall. To test the technique, Professor Allan randomly assigns 50 primary school children to two groups. One group is trained in the Allan Technique, and the other group is not. At the end of the training, she tests the memory ability of the two groups.

- a. Write an operational hypothesis for this study.

1 mark

- b. If Professor Allan had conducted this research on adult university students, what difference would there be in the ethical procedures governing her research?

1 mark

AREA OF STUDY 2 – LEARNING

Question 1

The role of the learner is often described as ‘passive’ when learning occurs via classical conditioning. What does this description mean?

1 mark

Question 2

In the context of Pavlov’s original experiments, describe an example of spontaneous recovery.

2 marks

Question 3

When children do not get their own way they will sometimes throw temper tantrums where they hold their breath and roll about banging their hands and feet on the floor. Parents embarrassed and concerned about this behaviour often do what the child wants in order to stop the behaviour.

- a. In terms of reinforcement of the child, what happens when the parents give in?

1 mark

- b. What will most likely happen in the future as a result of the parents doing what the child wants?

1 mark

- c. What **type** of reinforcement do the parents receive as a result of doing what the child wants?

1 mark

- d. The child has learned that throwing a tantrum in certain places results in the parents giving in more quickly (for example, the supermarket checkout, quiet places such as churches or libraries). The ability of the child to throw tantrums in those places is an example of _____

1 mark

- e. Using the language of learning theory, name and describe **one** strategy that the parents could use to reduce the child’s tantrums.

2 marks

Question 4

Describe **two** factors that could influence the likelihood of you imitating a model's behaviour.

2 marks

Question 5

Describe **two** current ethical principles that Watson appeared to violate when he conducted his research on Little Albert.

1.

2.

2 marks

Question 6

Natalie is a highly skilled goal shooter in her netball team. One Saturday, she decides to play in a basketball match. Explain how a learning set might influence her performance in the basketball match.

1 mark

AREA OF STUDY 3 – RESEARCH INVESTIGATION

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

Rhonda believes that acting out a passage from a novel is a better method for learning the passage than simply reading and repeating it to oneself. She thinks this would be true for all VCE students in Victoria.

To test her idea, Rhonda uses two Year 12 Psychology classes at her all girls school. Forty-six students are randomly assigned to one of two groups. One group acts out the passage in front of the rest of the class. The other group is given the passage and told to read and repeat it quietly to themselves.

Each participant then sits a comprehensive test and Rhonda marks and records the number of correct answers.

The results are as follows.

Group 1 (acting out the passage): Mean test score = 80%

Group 2 (reading and repeating the passage to oneself): Mean test score = 70%

A statistical test on these results found that $p > 0.05$.

Question 1

Why is this study an experiment?

1 mark

Question 2

Why does Rhonda's research method allow her to infer a cause and effect relationship?

1 mark

Question 3

Construct an operational hypothesis for this study.

1 mark

Question 4

a. What is the independent variable?

1 mark

b. What is the dependent variable?

1 mark

Question 5

Describe an alternative research design method that Rhonda might use. Clearly point out **one** advantage that this alternative method might have over Rhonda's design.

2 marks

Question 6

Describe **two** ethical principles that Rhonda should follow in the conduct of this study.

1.

2.

2 marks

Question 7

a. What conclusion can be drawn from the descriptive statistics that Rhonda provided?

1 mark

b. Name **one** other descriptive statistic that Rhonda could calculate. What information about the results would this provide?

2 marks

Question 8

What statistical conclusion can Rhonda infer from these results?

1 mark

Question 9

Based on her sampling method, what conclusion can Rhonda reach about the underlying population from which the sample was drawn? Explain.

2 marks

Question 10

- a. Indicate **one** possible extraneous variable that might affect these results. Clearly explain how it could affect the results.

2 marks

- b. Describe **one** way in which this extraneous variable might be controlled.

1 mark