



# Victorian Certificate of Education

## 2009

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

### STUDENT NUMBER

Figures

Words


Letter

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# PSYCHOLOGY

## Written examination 2

Thursday 5 November 2009

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

<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	44	44	44
B	18	18	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**

**Echoic** memory holds sounds for \_\_\_\_\_ which enables us to \_\_\_\_\_ .

- A. a fraction of a second; register a fleeting visual image
- B. a fraction of a second; link sounds together in order to recognise words and sentences at a later stage
- C. 3–4 seconds; register visual images
- D. 3–4 seconds; link sounds together in order to recognise words and sentences at a later stage

**Question 2**

**Iconic** memory lasts for

- A. a fraction of a second and retains only visual information.
- B. about a second and retains only auditory information.
- C. about 3–4 seconds and retains only visual information.
- D. up to 20 seconds if it is rehearsed.

**Question 3**

Which of the following statements about short-term memory (STM) is most accurate?

- A. STM only holds information transferred from sensory memory.
- B. STM holds all incoming information for around 30 minutes.
- C. STM holds all sensory information until it is encoded into long-term memory.
- D. STM holds a limited amount of encoded information while it is being processed.

**Question 4**

In the standard model of memory, information is described as flowing through a series of stages.

According to this model, the three storage systems through which information in memory passes are

- A. primary memory; secondary memory; long-term memory
- B. sensory memory; short-term memory; long-term memory
- C. iconic memory; echoic memory; sensory memory
- D. visual memory; verbal memory; spatial memory

**Question 5**

The memory system that stores information about personal events **and** general knowledge is the

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

**Question 6**

Kristy asked her big sister Mary to come with her on a bike ride. Mary had not ridden a bike since she was quite young but after a few minutes she was able to ride confidently. This is an example of Mary's \_\_\_\_\_ memory working well.

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

**Question 7**

Michael began a job as a salesman for a pharmaceutical company. He had to learn the names and uses of the company's 30 products before he was allowed to begin selling. To test his knowledge, he was asked to state the names and uses of the 30 products (Task 1).

Michael did not do well on Task 1 so he was given a list of 40 products and their uses, including the 30 he had studied, and was asked to identify the original 30 products (Task 2).

Task 1 is a test of \_\_\_\_\_ and Task 2 is a test of \_\_\_\_\_ .

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

**Question 8**

Which of the following statements is the most accurate?

- A. Relearning is a less sensitive measure of retention than recognition.
- B. Recall is a more sensitive measure of retention than recognition.
- C. The most sensitive measure of retention is recognition.
- D. The most sensitive measure of retention is relearning.

**Question 9**

Which of the following equations could be used to calculate a savings score?

- A.  $\frac{\text{time taken for original learning} - \text{time taken for relearning}}{\text{time taken for relearning}} \times 100$
- B.  $\frac{\text{time taken for relearning} - \text{time taken for original learning}}{\text{time taken for relearning}} \times 100$
- C.  $\frac{\text{time taken for original learning} - \text{time taken for relearning}}{\text{time taken for original learning}} \times 100$
- D.  $\frac{\text{time taken for relearning} - \text{time taken for original learning}}{\text{time taken for original learning}} \times 100$

**Question 10**

As we age, it is most likely that

- A. episodic memory declines more than procedural memory.
- B. semantic memory declines more than episodic memory.
- C. episodic memory and semantic memory decline at a similar rate.
- D. procedural and episodic memories both show little decline.

**Question 11**

Harry is a healthy 70-year-old man who has no brain disease or injury.

Choose the statement that most probably describes his memory abilities.

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

**Question 12**

Grace tripped and hit her head on a metal post. She was unconscious for a few minutes and when she recovered she could not remember anything that had occurred in the 15 minutes before she fell.

This can best be explained by

- A. a failure of consolidation.
- B. retroactive interference.
- C. proactive interference.
- D. anterograde amnesia.

**Question 13**

Bronwyn played tennis in a district competition and was able to remember the names of the girls she played against each time they played. One evening at a party she saw a girl she recognised but whose name she could not recall. When the girl mentioned that she played tennis in the same district competition Bronwyn was able to recall the girl's name.

In this case, playing tennis was a \_\_\_\_\_ cue which helped Bronwyn recall the girl's name.

- A. recency
- B. primacy
- C. state dependent
- D. context dependent

**Question 14**

Ebbinghaus is known for his work on the features of the forgetting curve.

When Ebbinghaus tested subjects on their ability to recall nonsense syllables he found that the rate of forgetting was

- A. steady for the first two days followed by little decline after that.
- B. slow for the first 8 hours followed by a rapid decline for two days.
- C. slow for the first 20 minutes followed by a rapid decline for two days.
- D. rapid for the first 30 minutes, then slowing with little decline after two days.

**Question 15**

Research on patients who have sustained brain damage demonstrates that memory

- A. is permanent and resistant to damage.
- B. consists of a single system for storing all kinds of information.
- C. is permanently lost for events that occurred prior to the onset of brain damage.
- D. consists of several different systems for storing different kinds of information.

**Question 16**

Garry is driving home from work when his wife phones and asks him to get a list of 10 items from the supermarket. Garry tries to repeat the list over and over to himself, in order, until he gets to the supermarket.

Which items is Garry most likely to bring home?

- A. items 1 and 2, and 8, 9, and 10
- B. the middle four items
- C. items 1–3 and 4–7
- D. the last five items

**Question 17**

The visual-spatial sketchpad is

- A. activated by verbal command.
- B. part of long-term memory.
- C. part of working memory.
- D. part of iconic memory.

**Question 18**

Working memory refers to

- A. the temporary storage and processing of information that can be used to solve problems, respond to environmental demands, or achieve goals.
- B. memory for facts, images, thoughts, feelings, skills and experiences that may last as long as a lifetime.
- C. memory specifically dedicated to working only with semantic memories.
- D. memory that is expressed in behaviour, and acquired through conditioned learning and association.

**Question 19**

Chunking is a method used to

- A. increase the storage capacity of short-term memory.
- B. increase the storage capacity of long-term memory.
- C. decrease the storage capacity of short-term memory.
- D. decrease the storage capacity of long-term memory.

**Question 20**

Jean suffered a head injury as a result of a horse riding accident. She recovered well, but has difficulty remembering events that occurred up to two years prior to the accident.

This kind of memory problem is known as

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

**Question 21**

Which theory explains that forgetting is a result of a fading memory trace?

- A. decay theory
- B. consolidation theory
- C. levels of processing theory
- D. motivated forgetting theory

**Question 22**

When phoning her sister at work Olivia asks the receptionist for her sister by her original surname, rather than her married surname, which Olivia's sister now uses.

According to the interference theory of forgetting this is an example of

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

## AREA OF STUDY 2 – LEARNING

### Question 23

Which of the following behaviours is **not** dependent on learning?

- A. avoidance of a food that made you sick the last time you ate it
- B. salivating at the sound of a bell
- C. blinking when air is blown into your eyes
- D. talking with friends

### Question 24

The mating dance of a bird is an example of

- A. a reflex action.
- B. a fixed-action pattern.
- C. operant conditioning.
- D. generalisation.

### Question 25

Claudia conducted an experiment to see if babies could be taught to walk earlier than babies left to learn to walk on their own. She divided the 8-month-old babies from a childcare centre randomly into Group A (twenty-five babies) and Group B (twenty-five babies). For two hours each day, Group A babies were exercised by moving their legs in a walking motion and were put in a play area with other children who were walking around. Group B babies spent two hours each day in unstructured play where they could crawl around freely. The babies in Group B were not in a play area with other children. The age at which each baby first walked was then recorded, and a mean walking age determined for each group.

What was Claudia most likely to find?

- A. The mean age at which children in both groups walked was the same because walking is a behaviour that develops through maturation.
- B. Group A developed walking behaviour earlier than Group B because walking is best learned through observation of others.
- C. Both groups walked at the same time, although earlier than the expected age because walking is a behaviour that is learned through conditioning.
- D. Group B developed walking behaviour earlier than Group A because they were allowed to crawl more during the two hour sessions.

### Question 26

In his experiments, Pavlov referred to dogs salivating in the presence of food as an ‘unconditioned response’ because

- A. he had not yet discovered conditioning.
- B. salivation is not conditional on the presence of food.
- C. salivation is a controlled response dependent on learning.
- D. salivation is an innate reflex response to the presence of food.

**Question 27**

In Karlee's Psychology class, she noticed that whenever the teacher moved to the front of the room the class stopped talking and gave their attention to the teacher, who would then start to talk to the class. For a week the teacher moved to the front but did not talk to the class when they became quiet. Karlee noticed that the class no longer became quiet when the teacher moved to the front of the room.

This change in the class's behaviour is an example of

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

**Question 28**

In an experiment with a rat and a Skinner Box, a food pellet was released every two minutes, regardless of how often the rat pressed the lever.

This is an example of a \_\_\_\_\_ schedule of reinforcement.

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

**Question 29**

Initially, a young child had no response to a nurse's white uniform. However, the young child received a couple of painful injections from a nurse in a white uniform. Now, the young child reacts with fear to any nurse in a white uniform.

In this example, the sight of the nurse in a white uniform has become \_\_\_\_\_ to the young child.

- A. an unconditioned response
- B. a conditioned response
- C. a conditioned stimulus
- D. an unconditioned stimulus

**Question 30**

In classical conditioning, the learner is relatively \_\_\_\_\_ and in operant conditioning the learner is relatively \_\_\_\_\_.

- A. passive; passive
- B. passive; active
- C. active; passive
- D. active; active

**Question 31**

One of the factors crucial to successful classical conditioning is

- A. the order in which the conditioned stimulus and the unconditioned stimulus occur.
- B. the avoidance of punishment.
- C. a variable interval schedule.
- D. positive reinforcement.

**Question 32**

Brendan was bitten by his neighbour's dog. He now has a fear of his neighbour's dog but is not fearful of other dogs.

This is an example of

- A. operant conditioning.
- B. observational learning.
- C. stimulus generalisation.
- D. stimulus discrimination.

**Question 33**

Taylor's psychologist wants to use conditioning to help him stop biting his nails. The psychologist decides to paint Taylor's nails with a nasty tasting substance.

The nasty tasting substance in this case is the

- A. punishment.
- B. negative reinforcement.
- C. unconditioned stimulus.
- D. conditioned stimulus.

**Question 34**

Emma has forgotten the code to the lock on her locker. She tries several different codes randomly, hoping one will be the right one to unlock the padlock.

This behaviour is most likely an example of

- A. trial and error learning.
- B. motivated forgetting.
- C. one-trial learning.
- D. learning set.

**Question 35**

Which one of the following statements is true regarding positive and negative reinforcement?

- A. Positive reinforcement and negative reinforcement both decrease the likelihood of a response occurring.
- B. Positive reinforcement and negative reinforcement both increase the likelihood of a response occurring.
- C. Positive reinforcement increases the likelihood of a response occurring; negative reinforcement decreases the likelihood of a response occurring.
- D. Positive reinforcement delivers a pleasant consequence for a response; negative reinforcement delivers an unpleasant consequence for a response.

**Question 36**

An animal learns to press a button in order to turn off an aversive noise.

This is an example of

- A. negative reinforcement.
- B. positive reinforcement.
- C. learned helplessness.
- D. punishment.

**Question 37**

In operant conditioning, **extinction** occurs if enough conditioning trials occur in which

- A. the response is not followed by the consequence previously associated with it.
- B. the response is generalised to other similar situations.
- C. variable-interval schedules of reinforcement are used as opposed to fixed-interval schedules.
- D. the presentation of the unconditioned stimulus occurs without the presentation of the conditioned stimulus.

**Question 38**

Every time you order a coffee at your local coffee shop you get a card stamped. After you buy ten coffees you get a coffee for free.

This is an example of which kind of reinforcement schedule?

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

**Question 39**

Thorndike's law of effect is best illustrated by

- A. cleaning your room because you were praised when you did it last time.
- B. a boy learning to change a tyre by watching his father.
- C. blinking when a puff of air is blown into your eye.
- D. being scared of thunder.

**Question 40**

Thorndike was best known for his studies on

- A. trial and error learning.
- B. observational learning.
- C. classical conditioning.
- D. learning set.

**Question 41**

One of the key differences between classical and operant conditioning is that

- A. in classical conditioning responses can be extinguished, while in operant conditioning responses cannot be extinguished.
- B. in classical conditioning responses cannot be extinguished, while in operant conditioning responses can be extinguished.
- C. in classical conditioning learning is based on a reflexive response, while in operant conditioning learning is based on voluntary behaviour.
- D. in classical conditioning learning is based on voluntary behaviour, while in operant conditioning learning is based on a reflexive response.

**Question 42**

Sam vividly remembers an occasion when his older brother Jason was very ill after eating too many chocolates. After this, Sam has never eaten more than one or two chocolates at a time.

The effect on Sam's behaviour of witnessing Jason's illness is an example of

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

**Question 43**

Bandura's Bobo doll studies demonstrated that

- A. children are less willing to imitate the actions of someone they have seen punished for their actions.
- B. children are willing to imitate the actions of someone regardless of the observed consequences.
- C. girls are more likely to imitate aggressive behaviours than boys.
- D. observational learning is less effective with girls than boys.

**Question 44**

According to Bandura's observational learning theory, the four elements that underlie observational learning (in order) are

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

**SECTION B – Short answer questions**

**Instructions for Section B**  
Answer **all** questions in the spaces provided.

**AREA OF STUDY 1 – MEMORY**

**Question 1**

William has an acquired brain injury. He has difficulty learning new information and remembering events that have occurred since his injury, however he can remember information and events that occurred prior to his brain injury.

- a. William suffers from \_\_\_\_\_ amnesia. 1 mark
  
- b. Despite his amnesia William is able to learn new motor skills such as playing guitar. Which type of long-term memory can William still create?

\_\_\_\_\_ 1 mark

**Question 2**

- a. According to the semantic network theory, how is information stored in long-term memory?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ 2 marks

- b. According to the semantic network theory, how is information retrieved from long-term memory?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ 1 mark

- c. According to the semantic network theory, what determines how quickly memories can be retrieved?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ 1 mark



**Question 5**

According to Freud, we can repress memories.

a. What is repression?

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1 mark

b. Explain the difference between repression and suppression.

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1 mark

c. Repression and suppression are both forms of \_\_\_\_\_ forgetting.

1 mark

## AREA OF STUDY 2 – LEARNING

### Question 6

Watson and Rayner's experiment (1920) with Little Albert is famous for advancing our understanding of classical conditioning in humans, and also for the ethical issues it raised.

Describe two ethical principles that the original study would breach if it were carried out today.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

2 marks

### Question 7

Two years ago, when she had a virus, Ena ate grapes. A few hours later she felt very sick. Although the virus was the most likely cause of her nausea, whenever Ena sees grapes now she feels nauseous and is unable to eat them.

a. This form of taste aversion is also known as \_\_\_\_\_ learning.

1 mark

b. Explain **two** differences between this type of learning and the standard principles of classical conditioning.

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 marks

c. In this scenario, identify

i. the conditioned stimulus

\_\_\_\_\_

ii. the conditioned response

\_\_\_\_\_

iii. the unconditioned response.

\_\_\_\_\_

1 + 1 + 1 = 3 marks

**Question 8**

Max is a nine-year-old boy who has learning difficulties. A child psychologist is working with Max. Max continually interrupts their session together by getting out of his seat. The psychologist wants to teach Max to stay in his seat for their half-hour session.

- a. Give an example of how the psychologist could change Max’s behaviour using operant conditioning.

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1 mark

- b. Using the terms of operant conditioning, explain how your method will help Max to learn to stay in his seat.

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2 marks

**Question 9**

Peter has been learning Spanish for four years. Peter changed schools and then had to learn Italian. Peter found Italian a lot easier to learn than he anticipated.

- a. In terms of learning set, explain why Peter may have found learning Italian easy.

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1 mark

- b. Using a different example, explain how a learning set could negatively impact on new learning.

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2 marks

### AREA OF STUDY 3 – RESEARCH INVESTIGATION

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

Doctor Fraser is a university research psychologist. His area of expertise is the development of literacy skills in children.

Doctor Fraser has designed a new literacy program for Grade 4 children in Victoria. It is a 30-minute television literacy program that runs daily for four weeks.

To test this program, Doctor Fraser sent a letter to all parents/guardians of Grade 4 children in Victoria asking for volunteers. The children of the first 100 parents/guardians who replied were accepted into the study.

Prior to the experiment, each participant sat a literacy test (Literacy Test A) administered by their Grade 4 teacher. The teachers then sent the results to Doctor Fraser.

Participants were put into 50 pairs based on gender and the similarity of their scores on the literacy test (Literacy Test A).

A computer program was used to select, by chance, one member of each pair to undertake the literacy program. These participants had to watch the literacy program on television for 30 minutes each day for four weeks. The other member of the pair was allowed to watch cartoons of their choice for 30 minutes per day for four weeks.

At the end of four weeks, the participants' Grade 4 teachers administered a second literacy test (Literacy Test B) and sent the results to Doctor Fraser.

Results between the two groups were then compared. A test of significance was calculated and  $p > 0.05$ .

All ethical guidelines were strictly followed.

#### Question 10

Write an appropriate operational hypothesis for this study.

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2 marks

#### Question 11

Name the independent variable and the dependent variable in this study.

Independent variable \_\_\_\_\_

Dependent variable \_\_\_\_\_

2 marks

#### Question 12

Were the participants in this study randomly allocated? Explain what is meant by random allocation.

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2 marks

**Question 13**

- a. Name the experimental research design that was used in this study. In terms of this study, explain your answer.

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2 marks

- b. Name one other experimental design. What is one disadvantage of this experimental design compared to the experimental design that Doctor Fraser has used?

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2 marks

**Question 14**

The researcher set the level of significance at 0.05. What does a level of significance of 0.05 mean?

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1 mark

**Question 15**

Was there a statistically significant difference between the results of the two groups of participants?

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1 mark

**Question 16**

Outline one uncontrolled variable that could potentially confound the results **and** describe how it could affect the results.

Uncontrolled variable \_\_\_\_\_

\_\_\_\_\_

Possible effect on results \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 marks

**Question 17**

In terms of participant selection, should these results be generalised?

Explain your answer.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 marks

**Question 18**

Parents/guardians and participants were debriefed after this study.

Outline two pieces of information that the researcher must give during the debriefing process.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

2 marks

