Victorian Certificate of Education
2003

STUDENT NUMBER

Letter

Figures

Words

PSYCHOLOGY
Written examination 2

Thursday 6 November 2003

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	45	45	45
B	17	17	45
			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 20 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 electronic communication devices into the examination room.

SECTION A – Multiple-choice questions

Instructions for Section A

There are **15** questions for each of the three areas of study.
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

If you have a tip-of-the-tongue experience, you would probably be unable to immediately _____ the word you were trying to remember.

A. recall

B. reread

C. relearn

D. recognise

Question 2

Which sequence represents the flow of information following a training experience?

A. storage → encoding → retrieval

B. retrieval → encoding → storage

C. encoding → storage → retrieval

D. storage → retrieval → encoding

Questions 3, 4 and 5 relate to the following information

Marcus has just started a part-time job in a plant nursery.

On his first day, he was given a list of 20 common plant names and asked to learn them. He spent some time learning this list. At the start of his next shift, his boss gave him two tasks.

Task 1: Marcus was asked to write down as many of the plant names as he could remember from the original list.

Marcus was then given a short break before completing Task 2.

Task 2: Marcus was given a list of 50 common plant names, including the previous 20 plant names from the original list, and asked to circle the plants that were on the original list.

After completing the tasks, Marcus was then given the original list again and asked to study it again. The following week he repeated the two tasks.

Question 3

Task 1 was a _____ task while Task 2 was a _____ task.

A. relearning; recall

B. recognition; recall

C. recall; recognition

D. recognition; relearning

Question 4

Which of the following statements is most likely to be correct?

A. Repeating Task 1 a week later is a more sensitive measure of retention than the original Task 1.

B. Repeating Task 2 a week later is a less sensitive measure of retention than the original Task 2.

C. Task 1 is a more sensitive measure of retention than Task 2.

D. Tasks 1 and 2 are both relearning tasks.

Question 5

Marcus spent less time relearning the list the second time.

His boss could calculate the savings score by using which of the following equations?

A. $\dfrac{\text{number of original repetitions} - \text{number of relearning trials}}{\text{number of relearning trials}} \times 100$

B. $\dfrac{\text{time for original learning} - \text{time for relearning}}{\text{time for original learning}} \times 100$

C. $\dfrac{\text{time for relearning} - \text{time for original learning}}{\text{time for original learning}} \times 100$

D. $\dfrac{\text{time for relearning} - \text{time for original learning}}{\text{time for relearning}} \times 100$

Question 6

Anwar has just turned off his alarm clock yet he can still hear the sound of it ringing.

This effect is due to _____ memory.

A. episodic

B. working

C. iconic

D. echoic

Question 7

Visual and auditory stimuli are first registered in our

A. short-term memory.

B. long-term memory.

C. sensory memory.

D. iconic memory.

Question 8

Procedural memory is the memory used for

A. riding a bike.

B. fixing a tyre puncture.

C. knowing the names of famous cyclists.

D. remembering the road rules for cyclists.

Question 9

Maintenance rehearsal involves

A. relating new information to previously learned information.

B. transferring the information from STM to LTM.

C. repetition of information in LTM.

D. repetition of information in STM.

Question 10

Which of the following statements about semantic network theory is correct?

A. the stronger the association, the quicker the retrieval

B. the stronger the association, the slower the retrieval

C. the weaker the association, the longer the retention

D. the weaker the association, the shorter the retention

Question 11

Ebbinghaus' early studies on forgetting noted that most material is forgotten

A. slowly at first but at a rapid rate from 7 days after learning.

B. at a steady rate for the first month after learning.

C. between 8 and 24 hours after learning.

D. soon after learning.

Question 12

Sam was involved in a car accident in which he hit his head. As a result he was unable to remember anything about the few days **before** the accident.

Sam is suffering from

A. Alzheimer's disease.

B. retrograde amnesia.

C. anterograde amnesia.

D. retroactive interference.

Question 13

In Godden and Baddeley's study of context-dependent memory cueing, divers were asked to learn a list of words either underwater or on land. They were then asked to recall the words when they were either underwater or on land.

The results indicated that

A. the divers recalled the same amount of information in either context.

B. the greater the similarity between the two conditions the stronger the effect of context.

C. material retrieved in one context was better recalled if it was learned in the same context.

D. material learned in one context was better recalled if it was retrieved in a different context.

Question 14

Your grandfather can recall very well what happened during his experiences in World War II. However, he can not remember who won the football last Saturday.

This is strong evidence **against** which one of the following explanations of forgetting?

A. decay theory

B. interference theory

C. retrieval failure

D. motivated forgetting

Question 15

People sometimes use the phrase Never Eat Soggy Wheeties to remember compass directions.

This is an example of the mnemonic of

A. narrative chaining.

B. method of loci.

C. an acronym.

D. acrostics.

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AREA OF STUDY 2 – LEARNING

Question 16

A fixed action pattern is demonstrated by

A. brushing your teeth.

B. a spider spinning a web.

C. a baby learning to crawl.

D. pulling your hand from a hot stove.

Question 17

In Pavlov's experiment on salivation in dogs, the neutral stimulus was _____ and the conditioned stimulus was _____ .

A. the bell; the bell

B. the bell; salivation

C. the meat powder; the bell

D. the meat powder; salivation

Question 18

In classical conditioning, learning takes place by association.

This means that an association forms between two events that

A. are similar in nature.

B. are completely unrelated.

C. have similar consequences.

D. occur closely together in time.

Question 19

In operant conditioning, negative reinforcement involves

A. removing an aversive stimulus and so increasing the likelihood of a response occurring.

B. removing an aversive stimulus and so decreasing the likelihood of a response occurring.

C. providing a stimulus and so increasing the likelihood of a response occurring.

D. providing a stimulus and so decreasing the likelihood of a response occurring.

Question 20

Mary's two-year-old son frequently had tantrums. Mary decided to seek the help of a therapist.

The therapist suggested that Mary should ignore her son while he was screaming and yelling and when he was calm she should talk reassuringly to him and give him a hug.

Mary was using the principles of _____ to change her son's behaviour. The giving of a hug is an example of _____.

A. operant conditioning; positive reinforcement

B. operant conditioning; negative reinforcement

C. classical conditioning; positive reinforcement

D. classical conditioning; negative reinforcement

Question 21

Collette was bitten by a rat when she was four years old. On her 12th birthday, one of her friends bought her a pair of white mice. However, Collette was so afraid of the mice that they had to be returned to the pet shop.

Collette's fear of mice was due to

A.   extinction.

B.   observational learning.

C.   stimulus generalisation.

D.   stimulus discrimination.

Question 22

Robert has learnt to ask his mother for extra pocket money only when she is in a good mood.

Robert's behaviour is an example of

A.   shaping.

B.   stimulus generalisation.

C.   unconditioned stimulus.

D.   stimulus discrimination.

Question 23

Consequences that strengthen responses due to escape from or avoidance of unpleasant stimuli are _____ reinforcers.

A.   negative

B.   positive

C.   primary

D.   secondary

Question 24

Suzy's dog tries to dig in her indoor pot plants and often knocks them over. Each time the dog knocks over a plant Suzy locks the dog in the laundry for a few minutes.

The consequence for the dog, which is applied by Suzy, is a _____ because she is trying to _____ .

A.   punishment; decrease the likelihood of a response occurring

B.   punishment; increase the likelihood of a response occurring

C.   negative reinforcement; decrease the likelihood of a response occurring

D.   negative reinforcement; increase the likelihood of a response occurring

Question 25

Which one of the following statements about the use of punishment as a reinforcement technique is correct?

A.   punishment has no effect on the behaviour

B.   punishment may inadvertently act as a reinforcer

C.   punishment decreases the frequency of desirable behaviours

D.   punishment decreases the likelihood of avoidance behaviour

Question 26

Behaviours acquired by the _____ schedule of reinforcement are learned quickly and maintain a maximal rate of responding.

A. fixed ratio

B. fixed interval

C. variable ratio

D. variable interval

Question 27

A soft-drink vending machine operates on a _____ reinforcement schedule, while a gaming machine operates on a _____ reinforcement schedule.

A. variable ratio; fixed interval

B. fixed ratio; variable interval

C. partial; continuous

D. continuous; partial

Question 28

Bandura's famous 'bobo doll' study on observational learning indicates that aggressive behaviour is affected in all of the following examples **except** one.

A. Aggressive behaviour increases when the model is rewarded.

B. Aggressive behaviour decreases when the model is punished.

C. Aggressive behaviour increases when the observer is rewarded.

D. Aggressive behaviour decreases when the observer is punished.

Question 29

A few weeks ago, when Louis took his girlfriend to the local nightclub, they had a serious argument and his girlfriend broke up with him. They are now back together but whenever Louis returns to the same nightclub with his girlfriend he feels very nervous and gets 'butterflies' in his stomach. Louis' feelings on returning to the nightclub are due to

A. insight learning.

B. operant conditioning.

C. classical conditioning.

D. observational learning.

Question 30

Baseball talent scouts are interested in discovering if an Australian test cricketer is able to use his bowling skills when pitching a baseball.

The cricketer has no previous experience of baseball. The talent scouts want to discover if his _____ set for cricket will allow _____ transfer of skills to baseball, thus enabling him to pitch very well.

A. mental; positive

B. mental; negative

C. learning; negative

D. learning; positive

AREA OF STUDY 3 – RESEARCH METHODS

Question 31

In which of the following types of research study does the experimenter have the most **control** over the participants?

A. in-depth interview

B. correlational study

C. experimental study

D. naturalistic observation

Question 32

In a repeated measures design

A. different participants are used in both the control and experimental conditions.

B. the same participants are used in both the control and experimental conditions.

C. different participants with similar characteristics are used in both the control and experimental conditions.

D. the same participants are used in one trial of both the control and experimental conditions and different participants are then used in subsequent trials.

Question 33

In research into drugs that modify behaviour, a placebo controls for

A. experimental error.

B. experimental procedure.

C. participants' expectations.

D. experimenter expectations.

Question 34

Which of the following statements can be most accurately concluded from a correlation of -0.85 between hours of television watched and level of happiness?

A. Happy people watch a lot of television.

B. Unhappy people watch a lot of television.

C. Watching television makes people happy.

D. Watching television makes people unhappy.

Questions 35 – 40 relate to the following information

Dr Vogel is studying the effects of caffeine on behaviour. She deprives 30 first-year university students of sleep for 24 hours before the experiment begins. She divides her participants into two groups of 15 by picking their names out of a hat.

Experimental Group

The 15 students in the experimental group are given a capsule containing a dose of caffeine equivalent to five cups of strong coffee.

Control Group

The other group is given an apparently identical capsule containing powdered sugar only.

The students are then tested on their ability to perform a number of complex arithmetic problems.

Question 35

The independent variable of the experiment is

A. mental alertness.

B. hours of sleep deprivation.

C. amount of caffeine consumed.

D. performance on complex arithmetic problems.

Question 36

The dependent variable of the experiment is

A. mental alertness.

B. hours of sleep deprivation.

C. amount of caffeine consumed.

D. performance on complex arithmetic problems.

Question 37

A confounding variable that was not controlled in the study may have been the

A. gender of the participants.

B. education of the participants.

C. level of fatigue of the participants.

D. amount of caffeine consumed by the participants.

Question 38

The control participants received _____ while the experimental participants received _____ .

A. caffeine; powdered sugar

B. powdered sugar; caffeine

C. complex problems; simple problems

D. simple problems; complex problems

Question 39

What design was used in Dr Vogel's study?

A.   correlational

B.   matched subjects

C.   independent groups

D.   repeated measures

Question 40

Which of the following procedures could best improve Dr Vogel's study?

A.   single blind

B.   double blind

C.   random sample

D.   placebo-controlled

Question 41

A psychologist was studying the leisure activities of primary school students. In order to choose participants, the psychologist selected a random age sample of students from each class level. This sample was in the same proportion that the age groups occur in the target population.

This method of selecting participants is known as

A.   random sampling.

B.   stratified sampling.

C.   participant allocation.

D.   stratified random sampling.

Question 42

Which of the following statements is the best example of an operational hypothesis?

A.   that most young people, especially those under 30 years of age, consume a lot of alcohol

B.   that young people in the 18 to 25 year age group consume more alcohol each week than people in the 40 to 45 year age group

C.   that most young people, especially those under 30 years of age, drink alcohol and drive cars while under the influence

D.   that young people in the 18 to 25 year age group consume more alcohol today than in earlier decades

Question 43
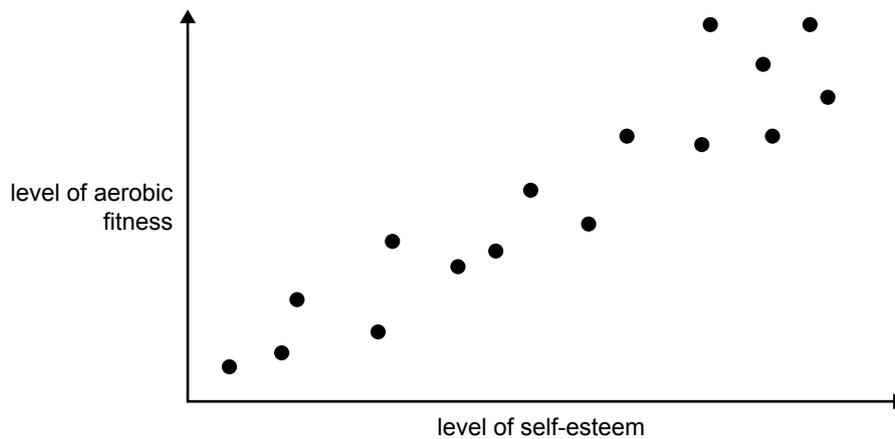
Which of the following statements best describes the results in the graph above?

A. There is a strong positive correlation between the two variables.

B. There is a weak positive correlation between the two variables.

C. There is a strong negative correlation between the two variables.

D. There is a weak negative correlation between the two variables.

Question 44

Philip Zimbardo conducted research into role expectations. In this research Zimbardo recruited volunteers and then allocated them to play the roles of either prisoners or prison guards. During the experiment some of the participants became distressed and wanted to quit the experiment. Zimbardo, however, insisted that the participants continue.

Which of the ethical guidelines that now govern psychological research did this experiment disregard?

A. deception

B. informed consent

C. withdrawal rights

D. voluntary participation

Question 45

Researchers debrief participants by informing them of

A. the names of the other participants in the study.

B. the right to withdraw from the study at any time.

C. the nature and reason for any deception that was used.

D. the details of why the chosen statistical analysis was used in the experiment.

END OF SECTION A

SECTION B – Short-answer questions

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

AREA OF STUDY 1 – MEMORY

Question 1

a. Research findings indicate that for most people the duration (in seconds) of short-term memory, without rehearsal, is up to

_____

1 mark

b. Describe what the process of chunking involves and provide an appropriate example.

_____

_____

_____

_____

2 marks

Question 2

At the beginning of class, Mr Foster read out a list of 15 unrelated words. The students were told to listen carefully and try to remember the list. Immediately afterwards Mr Foster asked the students to write down as many words as they could remember from the list.

a. **i.** Which part of the word list (initial, middle and/or end of list) would the students be most likely to remember?

_____

ii. Why?

_____

_____

_____

_____

_____

1 + 2 = 3 marks

TURN OVER

The students were not given another opportunity to rehearse the word list.

b. Which part of the word list (initial, middle and/or end of list) would the students be most likely to recall 24 hours later?

_____

1 mark

Question 3

Nina had a long conversation over the phone with her friend. When she finished, Nina tripped and fell heavily. She was knocked unconscious and ended up in hospital. According to the consolidation theory, Nina would not be expected to remember the telephone conversation when she regained consciousness.

Why?

_____

_____

_____

_____

2 marks

Question 4

In which form of long-term memory would the following pieces of information be stored?

Indicate your answer by placing a tick (✓) in the correct boxes.

	Episodic	Semantic	Procedural
i. your name			
ii. how to knit			
iii. your seat on an aeroplane			

3 marks

Question 5

a.   The term that Sigmund Freud used to describe the process of unconsciously removing a distressing memory from conscious awareness is

_____

<div align="right">1 mark</div>

Forgetting can be due to proactive interference.

b.   Describe proactive interference and give an example.

_____

_____

_____

_____

<div align="right">2 marks</div>

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AREA OF STUDY 2 – LEARNING

Question 6

Lucy has decided to start training her daughter Susie, aged 5, to tie her shoe laces.

Lucy decides to use the shaping principle of operant conditioning when training Susie.

a.   Describe how Lucy might use this principle while training her daughter.

_____

_____

_____

_____

1 mark

Unfortunately the approach used did not result in Susie learning how to tie her shoe laces without help. Lucy then decided to use the principle of observational learning when training Susie.

b.   Describe how Lucy might use this principle while training her daughter.

_____

_____

_____

_____

1 mark

Question 7

Identify three differences between classical and operant conditioning by ticking the correct terms in the table below.

	Classical conditioning		**Operant conditioning**	
Role of the learner	passive		passive	
	active		active	
	both passive and active		both passive and active	
Nature of the response	voluntary		voluntary	
	involuntary		involuntary	
	both voluntary and involuntary		both voluntary and involuntary	
Timing of the response	after the stimulus		after the stimulus	
	before the stimulus		before the stimulus	
	during the stimulus		during the stimulus	

3 marks

Question 8

The method of successive approximations is often used in animal training. Explain how this method is used to train an animal to perform a task. Give an example.

_____

_____

_____

_____

2 marks

Question 9

Name and define the four steps that occur in insight learning.

1. _____

2 _____

3. _____

4. _____

3 marks

Question 10

Describe two features of insight learning that distinguish it from other types of learning such as classical or operant conditioning.

1. _____

_____

2. _____

_____

2 marks

Question 11

Little Albert is now 17 years old. He comes to you for therapy regarding his 'problem' with white rats.

Name and describe a learning process you could use to help Albert overcome his fear.

_____

_____

_____

_____

_____

_____

3 marks

AREA OF STUDY 3 – RESEARCH METHODS

Question 12

a. What are inferential statistics?

_____

_____

_____

_____

1 mark

b. When are inferential statistics useful in data analysis?

_____

_____

_____

_____

1 mark

c. What implications can researchers draw from data analysis where inferential statistics are used?

_____

_____

_____

_____

1 mark

Question 13

Health researchers have known for a long time that there is a link between foods which have a high fat content and the risk of atherosclerosis (a form of heart disease). Food manufacturers have seen a marketing opportunity and developed foods that are low in fats but still taste good.

One example of this is yoghurt. Traditionally yoghurt was made from whole milk. Now there are many varieties of yoghurt from 'no fat' to 'low fat' including the traditional 'whole milk' variety.

A group of psychology students wanted to investigate whether or not people who bought low fat yoghurt thought that it tasted as good as the traditional whole milk yoghurt.

a. State a hypothesis for examining this issue in operational terms.

_____

_____

_____

1 mark

The students used the repeated measures design.

b. State **two benefits** of using this design.

_____

_____

_____

2 marks

Question 14

a. What is counterbalancing?

_____

_____

_____

1 mark

b. Explain why it is used.

_____

_____

_____

2 marks

Question 15

Contrast the conclusions that can be drawn from a study that measures the correlation between variables with a study that uses a full experimental design.

_____

_____

_____

_____

_____

_____

2 marks

Question 16

Name an ethical practice in the conduct of psychological research. Describe how disregarding this ethical consideration might lead to invalidity of the data gathered from the study.

_____

_____

_____

2 marks

Question 17

What is the difference between random allocation and random sampling?

_____

_____

_____

2 marks

END OF QUESTION AND ANSWER BOOK