



Victorian Certificate of Education 2004

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

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PSYCHOLOGY

Written examination 2

Thursday 4 November 2004

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	19	19	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**

The process of transforming information into a form that can be placed in memory is called

- A. acquisition.
- B. encoding.
- C. transduction.
- D. storage.

Question 2

We are able to perceive a movie as a smooth-flowing moving image rather than as a series of individual frames because of our _____ memory which is part of our _____ memory.

- A. echoic; short-term
- B. iconic; sensory
- C. iconic; short-term
- D. echoic; sensory

Question 3

Information in echoic sensory memory is

- A. stored for about 3 to 4 seconds.
- B. made up of visual information.
- C. held in a meaningful form.
- D. limited to approximately seven items.

Question 4

Which one of the following statements about short-term memory is true?

- A. Simple rehearsal is the best method for guaranteeing that material will transfer from short-term memory to long-term memory.
- B. The capacity of short-term memory can be increased by chunking and elaborative rehearsal.
- C. The capacity of short-term memory for individual letters is fixed at a certain number.
- D. Most material in sensory memory makes its way into short-term memory.

Question 5

Walid has gone to a shop to buy a new computer. The sales assistant tells Walid the prices of several computers. The sales assistant then goes to the storeroom to check on the availability of the computers. When the sales assistant returns about half a minute later, Walid cannot remember the prices.

It is most likely that the information about the prices of the computers has been lost from Walid's _____ memory.

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

Question 6

When is interference most likely to occur?

- A. when the new information to be remembered is similar to other information already in memory
- B. when distractions following the learning of new material are minimal
- C. when a complete rest is given during the time between learning and recall
- D. when dissimilar material is learnt after learning the new material

Question 7

George Miller's 'magic' rule of short-term memory functioning says that this store holds about _____ chunk(s) of information.

- A. 1
- B. 3
- C. 5
- D. 7

Question 8

Wolfgang was trying to remember a series of scientific terms for a chemistry exam.

He wrote the words on a piece of paper. He then associated each word with its meaning, how each word was used in scientific research, the origins of each word and any other terms related to each word.

After working on this, his memory for each word improved.

This is an example of what form of memory improvement technique?

- A. maintenance rehearsal
- B. chunking
- C. consolidation
- D. elaborative rehearsal

Question 9

The primacy effect occurs because the items at the beginning of a serial list are

- A. more likely to be transferred to long-term memory.
- B. still held in short-term memory at the time of immediate recall of the list.
- C. forgotten as new items enter short-term memory.
- D. interfered with by the later items in the list.

Question 10

My memory of how to play the perfect golf shot is a _____ memory; whereas my memory of the first time I met my best friend is an example of _____ memory.

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

Question 11

With regard to forgetting

- A. the rate at which people tend to forget material is consistent over time.
- B. most of what people are going to forget they forget soon after a learning trial.
- C. sensory memories tend to be forgotten more slowly than short-term memories.
- D. short-term memories are forgotten more slowly than long-term memories.

Question 12

Adam is experiencing retroactive interference while entering a new password into his mobile phone.

This means that

- A. he can recall his old password but not the new password.
- B. he can recall the new password but not his old password.
- C. he cannot recall having a password.
- D. he can recall both the old and the new passwords.

Question 13

According to the decay theory of forgetting

- A. people can be convinced that they know the information they are being asked to recall, but they are unable to recall it at the particular moment it is required.
- B. younger people should experience a similar amount of forgetting as those who are older.
- C. memories can suddenly be recalled even after a long period of disuse.
- D. memory traces gradually fade with the passage of time.

Question 14

You have just learned two tasks. When your memory for the tasks is tested later, your memory of the first task interferes with your ability to remember the second.

Which of the following processes has most probably occurred?

- A. retrieval failure
- B. consolidation failure
- C. proactive interference
- D. retroactive interference

Question 15

While I am studying for my examinations, my brother plays the same loud music over and over again in the next room.

According to the principle of state dependency

- A. the music will interfere with the material entering my short-term memory.
- B. I should recall the material better when tested in conditions of total silence.
- C. being tested in conditions where there is a similar type of loud noise should not improve my recall of the material.
- D. I should recall the material better when tested in conditions where the same music is being played.

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AREA OF STUDY 2 – LEARNING**Question 16**

At around 8–10 months babies begin crawling.

This is due to

- A. conditioned behaviour.
- B. reflexes.
- C. maturation.
- D. a fixed action pattern.

Question 17

In classical conditioning, nature provides the _____ connection and conditioning provides the _____ connection.

- A. UCS-CS; UCR-CR
- B. UCR-CR; UCS-CS
- C. CS-CR; UCS-UCR
- D. UCS-UCR; CS-CR

Question 18

A bell rings, then a puff of air into the eye causes a reflexive blink. After this happens on several occasions, the bell ringing alone causes a conditioned reflexive blink. The UCS is _____ and the CS is _____.

- A. puff of air; blinking
- B. bell; blinking
- C. puff of air; bell
- D. bell; puff of air

Questions 19 to 22 relate to the following scenario

Six weeks ago I ate a chicken sandwich that was contaminated with bacteria. It gave me food poisoning, and I was very ill for several days afterwards.

Question 19

Yesterday, someone offered me a chicken sandwich at a party, and when I saw it I felt ill again.

The illness that I felt yesterday was

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

Question 20

The illness that I suffered six weeks ago when I ate the contaminated chicken sandwich was

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

Question 21

The thought of a chicken sandwich when someone offered me one yesterday was

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

Question 22

The contaminated chicken sandwich that I ate six weeks ago and that made me feel sick was

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

Question 23

A researcher conditions a dog to salivate at the sound of a bell. This is then followed by food. After some time the sound of the bell alone (that is, without food) no longer leads to salivation.

This is referred to as

- A. spontaneous recovery.
- B. extinction.
- C. acquisition.
- D. stimulus generalisation.

Question 24

Before learning, an unconditioned stimulus elicits

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

Question 25

Jerome was bitten by a spider when he was eight years old. He then developed a phobia about spiders. He is now sixteen and runs away every time he sees a spider, or a picture of one. He avoids any films about insects and going near a wildlife area.

This behaviour can be explained by

- A. spontaneous recovery.
- B. extinction.
- C. stimulus discrimination.
- D. stimulus generalisation.

Questions 26 and 27 relate to the following scenario

Claire receives a special treat from her mother every time she tidies her room, and an additional treat at the end of each week if she washes the dishes after meals.

Question 26

This type of conditioning is referred to as _____ and the treat is called a _____.

- A. classical conditioning; stimulus
- B. operant conditioning; reinforcer
- C. classical conditioning; reinforcer
- D. operant conditioning; stimulus

Question 27

In terms of schedules of reinforcement, Claire's tidying her room is rewarded on a _____ basis, while washing the dishes is rewarded on a _____ basis.

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

Question 28

A token economy is most effective when

- A. tokens are given for successive approximations towards more complex desired behaviour.
- B. a penalty system is put in place that makes it very easy to lose tokens.
- C. many tokens are required to reach an award.
- D. each token is received in the form of a favourite food. For example, each token is a lolly.

Question 29

Punishment

- A. aims to remove desirable behaviours without necessarily replacing them with undesirable ones.
- B. can lead to aggressive behaviour.
- C. should not be administered consistently and immediately for maximum effect.
- D. does not lead to the reduction of undesirable behaviours.

Question 30

Bandura's BoBo doll experiments found that children were more likely to imitate the aggressive behaviour of a model if

- A. the model was seen to be reinforced after behaving aggressively.
- B. other adults showed disapproval of the aggressive behaviour of the model.
- C. other children did not imitate the aggressive behaviour of the model.
- D. the model was punished after behaving aggressively.

AREA OF STUDY 3 – RESEARCH METHODS

Questions 31–34 relate to the following information

A researcher was investigating whether the presence of speed cameras had any impact on driving behaviour. She was interested in whether drivers slowed down if they knew speed cameras might be operating. She went to a busy road where there was no evidence of speed cameras and recorded the speed of 100 drivers as they drove past a particular point on the road. She returned to the same road one week later and installed large warning signs saying speed cameras operated in the area. She then recorded the speed of 100 drivers as they drove past the same point on the road that she used in the previous week.

Question 31

What is the likely operational hypothesis?

- A. Warning signs have an impact on driving behaviour.
- B. The more you drive the more likely you are to speed.
- C. Warning signs lead to a decrease in speeding behaviour.
- D. Warning signs are as effective as actually having visible speed cameras in reducing driving speed.

Question 32

The independent variable is

- A. the presence of the warning signs.
- B. paying attention or not to the warning signs.
- C. the driving speed when the warning signs were present.
- D. the driving speed when there were no warning signs.

Question 33

The dependent variable is

- A. driving speed.
- B. the presence of the warning signs.
- C. the location of the warning signs.
- D. driving speed when there were no warning signs.

Question 34

Which statement best describes the way the subjects were selected?

- A. They are a random sample of the population.
- B. They are volunteers who may not reflect the population.
- C. They are a stratified sample of part of the population.
- D. They are classified as a control group for the purposes of the study.

Question 35

Research has shown that as the temperature increases in summer, fewer people attend gymnasiums.

What relationship would this indicate between the variables?

- A. no correlation
- B. null correlation
- C. a positive correlation
- D. a negative correlation

Question 36

In an independent groups research design

- A. different participants with similar characteristics 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 are used in both the control and experimental conditions.
- D. the same participants are used in only one trial of the control and experimental conditions and different participants are used in subsequent trials.

Question 37

What is the main advantage of true experimental research designs?

- A. The researcher does not control the choice of treatment.
- B. They permit the researcher to make cause and effect statements.
- C. The treatment groups are based on pre-existing grouping factors.
- D. Both variables are dependent variables.

Question 38

A study looking at sex differences in attitudes towards gun control

- A. could use a repeated measures design.
- B. could not use an independent samples design.
- C. could use a matched samples design.
- D. could not use a stratified sampling design.

Question 39

In correlational research

- A. the larger the correlation, the more likely there is to be a cause and effect relationship between the two variables.
- B. a correlation coefficient of 1.6 would represent a remarkably strong relationship.
- C. a large negative correlation can be interpreted in the same way as a large positive correlation.
- D. a large negative correlation can be just as significant as a large positive correlation.

Question 40

A researcher wants to see if his students have improved throughout the year. He records the marks that his students received for their first lab reports at the beginning of the year, and he compares these results with the marks that his students receive for their lab reports at the end of the year. So, from each student, he has two results: one for the first lab report and one for the second lab report.

Which one of the following statements is true of this research?

- A. The researcher is using an independent groups design.
- B. The researcher is using a repeated measures design.
- C. The researcher could avoid practice effects by counterbalancing the testing order.
- D. The dependent variables are the two times (beginning of the year and end of year).

Question 41

Researchers use the data collected from an experiment to draw conclusions about the relationship between the variables of interest in the population.

They are doing which of the following?

- A. constructing an operational hypothesis
- B. generalising the results to the sample
- C. making inferences from the statistics
- D. commenting on experimental method

Questions 42–45 relate to this scenario

Professor Von Trapp is studying how the length of time that a stimulus is exposed to a participant affects the participant's ability to recall the shape of the stimulus. She recruits 30 first-year university students, 15 male and 15 female. Each participant is presented with three sets of 10 shapes, which are exposed for: four seconds for the first set of 10 shapes, two seconds for the second set of 10 shapes and one second for the third set of 10 shapes. She then asks each participant to perform a memory recognition task for 50 different shapes, the 30 shapes previously seen and 20 distracters.

Question 42

The independent variable of the experiment is

- A. the length of time of stimulus exposure.
- B. the participants' recognition memory performance.
- C. the education level of the participants.
- D. the gender of the participants.

Question 43

The dependent variable of the experiment is

- A. the education level of the participants.
- B. the length of time of stimulus exposure.
- C. the gender of the participants.
- D. the participants' recognition memory performance.

Question 44

What research design was used in the professor's study?

- A. repeated measures
- B. matched subjects
- C. independent groups
- D. correlational

Question 45

A confounding variable that was not controlled for in the study was

- A. the order of time of exposure of the stimuli.
- B. the memory skill of the participants.
- C. the length of exposure of the stimuli.
- D. the level of education of the participants.

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

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

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

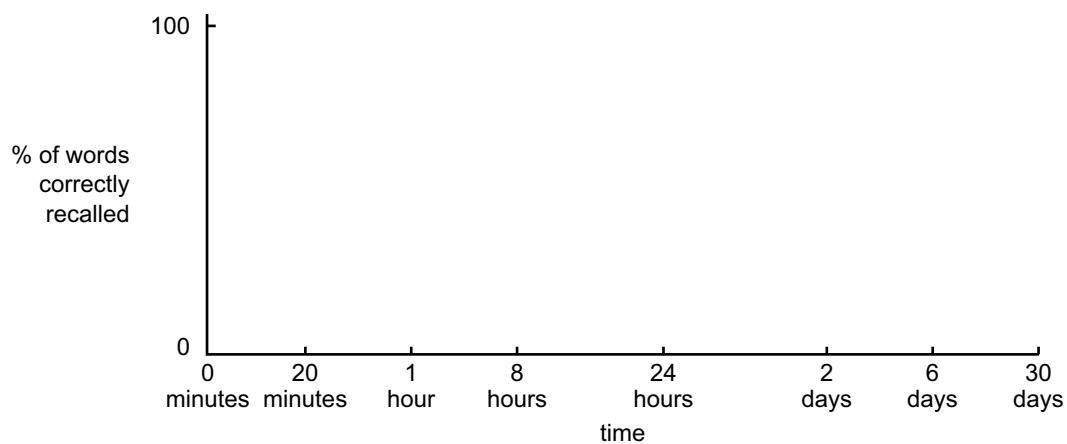
According to the theory of repression, why do some people claim to have no recollection of traumatic events that occurred to them in their childhood?

2 marks

Question 2

Jacinta is teaching her class new words in Spanish. She tests her class after the initial learning on their ability to recall these words. She decides to plot a graph that displays the number of words retained over time.

- a. Plot on the graph below the typical shape that you would expect the graph to take.



1 mark

Jacinta then wants to create a savings score based on the time taken to learn the material the first time and then relearning it a week later.

- b. What formula should she use to determine the savings score?

1 mark

Question 3

State one similarity and one difference between maintenance and elaborative rehearsal.

2 marks

Question 4

a. Describe one effect of Alzheimer's disease on the physiology of the brain.

1 mark

b. In the early stages of Alzheimer's disease what sort of information (that is, episodic and/or semantic and/or procedural) is most likely to be affected?

1 mark

Question 5

a. Describe the 'tip of the tongue' phenomenon.

1 mark

b. Give one possible explanation why the tip of the tongue phenomenon occurs.

1 mark

Question 6

a. List two possible reasons why memory may decline in a healthy elderly person (for example, a person over 70 with no major illnesses).

1. _____
2. _____

2 marks

b. Of the main methods that are used to assess memory retention, which method generally results in the best performance in healthy elderly people?

1 mark

Question 7

Give an example of an acrostic and an acronym. In each example clearly describe the material that the mnemonic device is being used to represent.

i. an acrostic _____

ii. an acronym _____

2 marks

AREA OF STUDY 2 – LEARNING**Question 8**

Define the term ‘fixed action pattern’ and give an example.

2 marks

Question 9

Aversion therapy was developed to deal with habits and addictions.

- a. Using the language of classical conditioning, describe an example of how this therapy may be used to help someone give up smoking.

2 marks

- b. Outline one major criticism of aversion therapy.

1 mark

Question 10

Ishmael was finding it difficult to do his VCE homework each night, so his mother came up with an unusual plan. She offered him the following: for every evening he completes his homework, he would not have to wash the dishes or take out the rubbish.

This system seems to work, as now Ishmael completes his homework almost every night.

- a. This is an example of what type of operant conditioning?

1 mark

- b. Describe one key feature of this type of learning.

1 mark

- c. Name and describe a different method of operant conditioning that could also ensure that Ishmael completes his homework every night.

1 + 1 = 2 marks

Question 11

Describe two main findings from Harrison's study (1992) on observational learning in different cultures.

2 marks

Question 12

With regard to how information is learned, describe a major difference between classical conditioning and operant conditioning.

2 marks

Question 13

a. Define the term 'learning set'.

1 mark

b. Give an example of a learning set from everyday life.

1 mark

AREA OF STUDY 3 – RESEARCH METHODS**Question 14**

- a. Describe the difference between single-blind and double-blind procedures in experimental design.

2 marks

- b. What is the purpose of a placebo in an experiment?

1 mark

Question 15

- a. Give one reason why a researcher might be justified in deliberately deceiving a research participant.

1 mark

- b. Give one reason why it is important for researchers to debrief research participants.

1 mark

- c. Apart from rights related to deception and debriefing, list two other ethical rights of research participants.

2 marks

Question 16

Nikita, the school librarian, is trying to find out how to make more students return their library books on time. She decides to test two conditions. She places half the books in a standard cover, she places the other half of the books in a bright orange cover. Nikita assigns students to one of the conditions at random over the next week. She then records whether the books are returned on time or not. Nikita finds that the books in the bright orange cover are returned at a slightly higher rate than books in the standard cover ($p > .05$).

The results are as follows.

	Standard cover	Bright orange cover
Books returned on time	72%	74%

- a. What is the independent variable in this study?

_____ 1 mark

- b. What conclusion can be drawn from the results of this study?

 _____ 1 mark

Question 17

What is a difference between inferential and descriptive statistics?

 _____ 2 marks

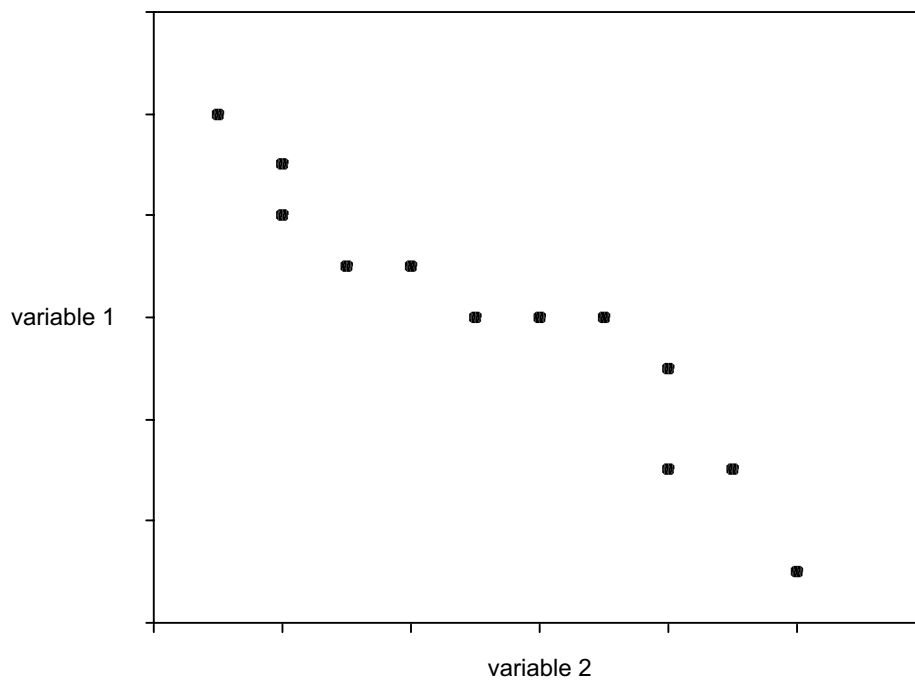
Question 18

Outline one advantage and one disadvantage of a matched subjects design.

 _____ 2 marks

Question 19

Look at the following scatterplot.



- a. How would you describe the relationship between the two variables?

1 mark

- b. What statistical test would you use to test the strength of the relationship between the two variables?

1 mark