



Victorian Certificate of Education 2007

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STUDENT NUMBER

Letter

Figures

Words

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PSYCHOLOGY

Written examination 2

Thursday 8 November 2007

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	19	19	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**

Sam is able to retain the vocabulary he learned in his French class long after the class has ended.

The main memory process that accounts for the fact that Sam can hold information in his memory for extended periods of time is

- A. encoding.
- B. retrieval.
- C. chunking.
- D. storage.

Question 2

When Jane was 19 she completed the first two units of a German language course. Ten years later, she began the course again and found that she learned the material in the first two units 25% more quickly than she did originally.

This is probably because

- A. relearning is the most sensitive measure of memory.
- B. the savings score could be calculated.
- C. the material in the first two units was the easiest.
- D. she was older and therefore her memory worked better.

Question 3

Which of the following is the least sensitive measure of memory retention?

- A. free recall
- B. recognition
- C. relearning
- D. cued recall

Question 4

Iconic memory has

- A. an unlimited capacity and an unlimited duration.
- B. a limited capacity and very brief duration.
- C. an unlimited capacity and very brief duration.
- D. a limited capacity and an unlimited duration.

Question 5

When watching a film, you are able to perceive the film as a continuous picture rather than a sequence of still frames moving quickly.

This is because of

- A. the phonological loop.
- B. echoic memory.
- C. the visuospatial sketchpad.
- D. iconic memory.

Question 6

Peter saw an advertisement on the television. The phone number for further information flashed on the television screen but disappeared before Peter was able to write down the last three digits. However, Peter found he had a momentary mental image of the phone number and he was able to write the complete number.

Peter's experience best illustrates

- A. cued recall.
- B. sensory memory.
- C. procedural memory.
- D. a flashbulb memory.

Question 7

Sensory memory includes

- A. eidetic memory and episodic memory.
- B. tactile memory and semantic memory.
- C. echoic memory and verbal working memory.
- D. iconic memory and echoic memory.

Question 8

According to the consolidation theory, new memories of an event form

- A. only within 30 minutes after the event.
- B. if the person pays attention to the event.
- C. when physical changes to the neurons occur during and after the event.
- D. when there is physical harm to the brain after the event.

Question 9

One way of making it easier to remember nine numbers is to consider the numbers as consisting of three groups of three; such as: 378 – 291 – 754.

In memory research, this process is called

- A. dividing.
- B. grouping.
- C. clumping.
- D. chunking.

Question 10

When you listen to a lecture, the information is held in _____ memory until you write it in your notes.

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

Question 11

The component of working memory that allows visual images to be held temporarily is known as

- A. iconic memory.
- B. echoic memory.
- C. the phonological loop.
- D. the visuospatial sketchpad.

Question 12

A theory that attempts to describe and explain how information is arranged in long-term memory is called the

- A. spreading activation theory.
- B. semantic network theory.
- C. consolidation theory.
- D. serial position effect.

Question 13

John is explaining the rules of his new computer game to Shane.

The information about rules is being retrieved from John's

- A. episodic memory.
- B. declarative memory.
- C. procedural memory.
- D. implicit memory.

Question 14

Sinead listened to a list of 20 words. She was asked to recall the list 10 minutes later.

Sinead was more likely to remember items from

- A. both the beginning and end of the list.
- B. the middle of the list.
- C. only the beginning of the list.
- D. only the end of the list.

Question 15

According to the theory of motivated forgetting, memories that are forgotten

- A. may be accessed at a later date as the memory still exists.
- B. are lost forever because the memory trace no longer exists.
- C. are lost forever because happier memories have taken their place.
- D. may be accessed whenever the person is asked to remember the event.

Question 16

According to the decay theory, memories are forgotten because

- A. neurotransmitters slowly destroy the memory.
- B. of old age.
- C. the physical trace of the memory has faded due to disuse.
- D. the memory was never consolidated in the first place.

Question 17

Last month you moved into a new house and memorised your new phone number. Now you cannot remember your old phone number.

This is an example of

- A. retroactive interference.
- B. proactive interference.
- C. retrograde amnesia.
- D. motivated forgetting.

Question 18

It is 10.00 pm the night before a morning examination. You have studied well.

The best thing to do now is to

- A. study a similar topic.
- B. study a very different topic.
- C. watch a movie.
- D. sleep all night.

Question 19

Which of the following is **not** an explanation for forgetting material?

- A. inability to find the right retrieval cues
- B. interference from other information
- C. motivation to forget painful information
- D. being in the same emotional state as when the material was learnt

Question 20

When a person loses memories of an upsetting personal experience, it is most likely the result of

- A. inhibition.
- B. repression.
- C. cue-dependent forgetting.
- D. a decision not to store the memory, as it is painful.

Question 21

Maurice is a healthy 80 year old who is not suffering from brain disease or injury.

As Maurice gets older, he is

- A. unlikely to experience large memory losses.
- B. likely to perform more poorly on recognition tests.
- C. unlikely to learn new material.
- D. likely to forget some procedural memories only.

Question 22

A psychologist tests memory recall under two different conditions.

A test of significance finds that $p > 0.05$.

This means that there is a

- A. less than 5 in 100 chance that the results are due to chance.
- B. greater than 5 in 100 chance that the results are due to chance.
- C. less than 5% difference between the results of the two conditions tested.
- D. greater than 5% difference between the results of the two conditions tested.

AREA OF STUDY 2 – LEARNING

Question 23

The same complex ritual that all male birds of a species perform to attract a female is called a

- A. learned behaviour.
- B. reflex.
- C. response due to maturation.
- D. fixed action pattern.

Question 24

Behaviours that are **least** dependent on learning include

- A. voluntary behaviours.
- B. behaviours acquired by observing others.
- C. behaviours that are a result of maturation.
- D. behaviours that result from classical conditioning.

Question 25

In Edward Thorndike's experiments, the cat

- A. first escaped from the box as a result of accidental behaviour.
- B. performed a series of ritual behaviours before escaping from the box.
- C. learned through classical conditioning the strategies to escape from the box.
- D. was punished when it performed a strategy that did not allow it to escape from the box.

Question 26

In Pavlov's original experiments, salivating at the sight of food is a

- A. learned response.
- B. reflex action.
- C. fixed action pattern.
- D. result of maturation.

Question 27

In Pavlov's original experiments, salivating at the sound of a bell is a

- A. learned response.
- B. reflex action.
- C. fixed action pattern.
- D. result of maturation.

Question 28

A dog has been conditioned to salivate when shown a square. The dog also salivates when shown a rectangle. The dog's behaviour illustrates

- A. stimulus discrimination.
- B. response discrimination.
- C. stimulus generalisation.
- D. response generalisation.

Question 29

Classical conditioning is based on

- A. reinforcement of different stimuli.
- B. learning to discriminate between different stimuli.
- C. spontaneous recovery of different stimuli.
- D. forming an association between different stimuli.

Question 30

When we eliminate unsuccessful responses and continue to explore the environment for responses that achieve our goals, we are undertaking

- A. one trial learning.
- B. classical conditioning.
- C. trial and error learning.
- D. aversive conditioning.

Question 31

Farina takes her dog for a walk each night after tea. Before going for the walk, she gets the leash from the cupboard. Now she notices that every time she opens the cupboard, the dog rushes to the front door excitedly.

In this example, opening the cupboard is

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

Question 32

In _____ the learner is active.

- A. operant conditioning
- B. classical conditioning
- C. both operant and classical conditioning
- D. neither operant nor classical conditioning

Question 33

If you wanted a rat in a Skinner Box to respond with a high and steady rate (without pauses), which schedule of reinforcement would you use?

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

Question 34

Which of the following statements is true about punishment?

Punishment

- A. decreases the likelihood of an unwanted behaviour occurring by removing an aversive stimulus.
- B. is most effective when it is administered a long time after the unwanted behaviour.
- C. decreases the likelihood of an unwanted behaviour occurring again while providing an alternative response.
- D. may produce a number of unwanted side effects.

The following information relates to Questions 35 and 36.

Nguyen's dog, Yap, barks whenever he sees a cat. Nguyen yells at the dog.

Question 35

Nguyen is hoping to change the dog's behaviour through applying

- A. punishment.
- B. negative reinforcement.
- C. positive reinforcement.
- D. observational learning.

Question 36

Despite successfully learning not to bark, two months later Nguyen's dog, Yap, begins to bark again at cats.

The most accurate term for this behaviour is

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

Question 37

When Jason completes his homework without his teacher's nagging, his Saturday detention is removed.

This is an example of

- A. positive reinforcement.
- B. negative reinforcement.
- C. punishment.
- D. response cost reinforcement.

Question 38

Which of the following is an example of negative reinforcement?

- A. grounding a teenager for misbehaving
- B. giving a student extra credit for class participation
- C. allowing a student to take an extra examination to gain a pass in the subject
- D. making a child sit in the corner until they say 'I am sorry'

Question 39

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

- A. passive.
- B. deliberate.
- C. reflexive.
- D. involuntary.

Question 40

Findings from Bandura's Bo-Bo doll experiments suggest that

- A. children will imitate aggressive behaviour if they are rewarded for it, even if the model is punished.
- B. children will not imitate aggressive behaviour if they see the model punished.
- C. children will imitate aggressive behaviour shown in a film unless it is presented as a cartoon.
- D. preschool children will not learn aggressive behaviour from a model.

Question 41

In Bandura's Bo-Bo doll experiments, it was found that

- A. boys were more aggressive than girls regardless of the consequence for the model.
- B. girls were more aggressive than boys regardless of the consequence for the model.
- C. girls were as aggressive as boys when the model was punished.
- D. girls were as aggressive as boys when there was no consequence for the model.

Question 42

Jamie likes to borrow his father's car. However, Jamie has learnt to ask his father for the car only if his father is in a good mood when he comes home from work.

Jamie's behaviour is an example of

- A. negative reinforcement.
- B. observational learning.
- C. stimulus discrimination.
- D. stimulus generalisation.

Question 43

The Institute of Sport decides to recruit an elite gymnast to train as an aerial skier, even though she has no skiing experience. They are hoping that a _____ transfer of skills to aerial skiing will result from her _____ set for gymnastics.

- A. negative; mental
- B. positive; mental
- C. negative; learning
- D. positive; learning

Question 44

Watson's experiment with Little Albert would be considered unethical by an ethics committee if carried out today.

This is because

- A. it could cause permanent harm.
- B. it experimented on young babies.
- C. it tested classical conditioning.
- D. the results could not be generalised to the wider population.

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

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

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

Tan is giving a talk to her class on endangered species of animals in Australia. She wants to ensure that she remembers **all** of the endangered species so she decides to use the Method of Loci to help.

Describe how she could use this method to help her remember all of the endangered species.

2 marks

Question 2

Working memory consists of three subsystems. One of these is the central executive. Describe and include an example of two key roles of the central executive.

1. Key role _____

Example _____

2. Key role _____

Example _____

4 marks

Question 3

Chelsea's memory loss is due to an organic cause of forgetting. What is meant by the term 'organic cause'?

1 mark

Question 4

Haydn fell off a ladder and hit his head on the concrete path. In the weeks after the accident, Haydn recovered so that he could live and work satisfactorily. However, he was initially unable to remember any event that occurred in the six months before the fall.

- a. This indicates that Haydn was suffering from _____ .
1 mark

- b. Haydn eventually recovers most of his lost memories. Describe the typical pattern of recovery of Haydn's memory.

2 marks

Question 5

Constable Phillips is investigating a fight at the football. He takes two witnesses back to the location where the fight occurred, in the hope that this will help them remember the details of the incident. Using psychological terms, explain why returning to the scene of the crime may assist the witnesses in their recall.

2 marks

Question 6

Anila works in a supermarket and has been asked to learn 20 sequences of numbers that represent the codes for 20 items. Each sequence appears to be meaningless. She learns the list in one session but does not view or use the sequences in the list again for three weeks.

With reference to the features of the forgetting curve, how might Anila's rate of forgetting the sequences be affected during the three weeks after learning them?

2 marks

AREA OF STUDY 2 – LEARNING**Question 7**

Marnie is a nurse at a country hospital. Jimmy, an 8-year-old boy, attends the hospital each fortnight for treatment. On his first visit, Marnie gave him an injection which was very painful. Now he screams when he is approached by a nurse, even if he does not need an injection.

According to the classical conditioning model of learning, identify the

i. unconditioned stimulus

ii. conditioned stimulus

iii. unconditioned response

iv. conditioned response

1 + 1 + 1 + 1 = 4 marks

Question 8

a. Why is Bandura's theory of observational learning often referred to as a form of operant conditioning?

1 mark

b. Jodie wants her daughter to learn how to cook. Describe how Jodie could teach her daughter cooking skills, using all the elements of observational learning.

5 marks

SECTION B – AREA OF STUDY 2 – continued

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Question 9

In Thorndike's studies, the cats learned to escape and get the fish. They did this through exploring their environment and attempting and eliminating various actions until they achieved the desired response.

What did Thorndike call this type of learning?

1 mark

Question 10

The acquisition of a taste aversion is both similar to and different from the usual classical conditioning process. Explain **one** similarity and **two** differences between taste aversion and classical conditioning.

Similarity _____

Difference 1 _____

Difference 2 _____

3 marks

AREA OF STUDY 3 – RESEARCH INVESTIGATION

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

Denise, an educational psychologist, was interested in studying the effects of different types of distractors on concentration. Denise works at Beachside Secondary College, a coeducational secondary school.

There are 200 VCE students at the college, 100 students in Year 11 and 100 students in Year 12. Both year levels comprise 60% males and 40% females, aged between 16 and 17.5 years old.

Denise randomly selected 20 VCE students at her school, ensuring that the year level and gender of the students were in the same proportion as in the school population of VCE students. Denise obtained informed consent.

Denise used three research assistants to help conduct the experiment. In the first trial, the first research assistant gave participants a logic puzzle to complete with no background distraction.

In the second trial, the second research assistant gave participants a different logic puzzle of similar difficulty and asked them to complete it while loud instrumental music was played.

In the third trial, the third research assistant gave participants a third logic puzzle of similar difficulty to the first two. They were asked to complete this puzzle while a tape of a loud verbal conversation was played.

Each research assistant recorded the time taken to complete the puzzle in the trials, but they were unaware of the other conditions and the hypothesis.

The following results were obtained.

Table 1. Mean times taken to complete the puzzle (n = 20)

Trial 1 No background noise	13.40 min
Trial 2 Loud instrumental music	16.01 min
Trial 3 Loud verbal conversation	18.36 min

Denise set the level of significance at 0.05.

Denise calculated a p value less than 0.05 for her study.

Question 11

Write an appropriate operational hypothesis for this research study.

2 marks

Question 12

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

Independent variable _____

Dependent variable _____

2 marks

Question 13

Denise randomly selected participants from different strata to obtain her sample.

Describe in detail a procedure that Denise may have used to obtain her sample.

3 marks

Question 14

a. Name the research design that Denise used in this research study.

1 mark

b. What is the main advantage of using this research design?

1 mark

Question 15

Denise used three different research assistants to conduct the experiment and record the results.

Name and describe the confounding variable Denise was trying to avoid by doing this.

Name _____

Description _____

2 marks

Question 16

State one possible confounding variable caused by this research design and explain how it could be avoided in the future.

2 marks

Question 17

Denise concluded that student concentration is most negatively affected by background noise that contains verbal sounds.

In terms of **statistical significance**, is this a valid conclusion to make? Give reasons for your answer.

2 marks

Question 18

Denise followed ethical guidelines, including obtaining informed consent. In this case, describe how Denise could have obtained informed consent.

2 marks

Question 19

Another researcher attempts to repeat this study at a different school.

Why is it important to attempt to repeat psychological research studies?

1 mark

END OF QUESTION AND ANSWER BOOK