

# **PSYCHOLOGY**

## **EXAM 2**

VCE Unit 4

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# PSYCHOLOGY

## EXAM 2 VCE Unit 4

### Contents

Test	Test structure	Topics tested
1	12 multiple choice 13 marks of short answer	Information processing model, measures of retention and levels of memory, features of short term memory and working memory
2	14 multiple choice 19 marks of short answer	The above plus: long term memory types, serial position effect, theories of forgetting and features of the forgetting curve
3	15 multiple choice 23 marks of short answer	The above plus: organic causes of forgetting, memory decline over the lifespan and memory enhancement
4	15 multiple choice 28 marks of short answer	The above plus: operational hypotheses, p values, ethics and behaviour not dependent on learning
5	17 multiple choice 33 marks of short answer	The above plus: classical conditioning and one trial learning
6	21 multiple choice 31 marks of short answer	The above plus: trial and error learning, operant conditioning and ethics in conditioning behaviour
7	22 multiple choice 38 marks of short answer	The above plus: comparison of classical and operant conditioning, observational learning and learning set
8	30 multiple choice 46 marks of short answer	The above plus: experimental designs, collation and interpretation of data, statistical analysis, findings and conclusions
9	Detachable examination 44 multiple choice 46 marks of short answer	Whole course

**Section A: Multiple choice questions**

**Specific instructions to students**

- A correct answer scores 1 mark, and an incorrect answer scores 0.
- Marks are not deducted for incorrect answers.
- No marks are given if more than one letter is shaded on the answer sheet.
- Choose the alternative which most correctly answers the question and mark your choice on the multiple choice answer section at the bottom of each page as shown in the example below.

1  A  B  C



- Use pencil only.

**Area of study 1: Memory**

**QUESTION 1**

Information in short term memory must be \_\_\_\_\_ for it to be transferred to long term memory. This process involves putting information into a(n) \_\_\_\_\_ form.

- A stored; organised
- B retrieved; accessible
- C attended to; working
- D encoded; useable

**QUESTION 2**

Which of the following is the most sensitive type of recall?

- A relearning
- B free recall
- C cued recall
- D serial recall

**Questions 3 and 4 refer to the following scenario**

George Sperling used a tachistoscope to flash rows of letters onto a screen for a brief period of time. He assigned a different tone to each row of letters. The sound of the tone would instruct the participants which row of letters they should start recalling. He found that participants could start recalling items from any row but could only record 3 or 4 letters per trial.

**QUESTION 3**

George Sperling provided evidence to help

- A support the unlimited capacity of sensory memory.
- B refute the unlimited capacity of sensory memory.

- C support the unlimited duration of sensory memory.
- D refute the unlimited duration of sensory memory.

**QUESTION 4**

George Sperling was aiming to measure

- A the pitch of the tone sounded.
- B the individual memory abilities of the participants.
- C the use of the tachistoscope.
- D the number of letters participants recalled.

**QUESTION 5**

Which of the following is a true statement regarding short term memory?

- A Short term memory stores information for a relatively short period of time.
- B Information that enters short term memory is an exact replica of sensory information.
- C The capacity of short term memory can not be increased.
- D All of the above are correct.

**QUESTION 6**

Each memory store has subdivisions that store specialised information. One subdivision of sensory memory is \_\_\_\_\_, one of subdivision of working memory is \_\_\_\_\_ and one subdivision of long term memory is \_\_\_\_\_.

- A echoic memory; iconic memory; declarative memory
- B iconic memory; central executive; semantic memory
- C phonological loop; visuospatial sketchpad; episodic memory
- D iconic memory; phonological loop; central executive

**QUESTION 7**

Which of the following is **not** an explanation of why memory declines with old age?

- A lack of motivation
- B lack of ability
- C lack of confidence
- D slowing of central nervous system functioning

ONE ANSWER PER LINE

USE PENCIL ONLY

1	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	5	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
2	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	6	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
3	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D	7	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
4	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D					

### QUESTION 8

Which of the following statements regarding motivated forgetting is false?

- A Memories are unconsciously blocked from entering conscious awareness.
- B Memories are consciously blocked from entering conscious awareness.
- C Memories that happened long ago are blocked from entering conscious awareness.
- D Memories that are upsetting or disturbing are blocked from entering conscious awareness.

### QUESTION 9

When comparing the two types of amnesia it can be found that compared to anterograde amnesia, sufferers of retrograde amnesia

- A are less likely to recover their memory in time.
- B are more likely to have experienced damage to the hypothalamus.
- C are more likely to forget events that occurred after an accident.
- D are more likely to have difficulty retrieving memories from long term memory.

### Questions 10 to 12 refer to the following scenario

In one piece of research into memory, Hudspeth and his colleagues administered electroconvulsive shock therapy (ECT) to rats to see the effect it would have on their memory. After rats had learned to navigate a maze they were administered these shocks at differing intervals. Group A received the shock immediately after learning the maze, group B received the shock 20 seconds after learning the maze, group C received the shock 30 minutes after learning the maze and group 4 received the shock 60 minutes after learning the maze. They then measured how many errors the rats made when navigating the maze, to measure their retention rates.

### QUESTION 10

Hudspeth and his colleagues helped to provide evidence for which theory?

- A consolidation theory
- B semantic network theory
- C retrieval failure theory
- D motivated forgetting

### QUESTION 11

The results of the study into the effect of ECT on the memory of rats showed that

- A groups A, B and C had no recollection of the maze.
- B groups A and B experienced more errors than groups C and D.

C group D experienced fewer errors than the other three groups.

D group B's retention rate was better than group C's.

### QUESTION 12

Which ethical consideration had Hudspeth broken in relation to his treatment of the rats?

- A confidentiality
- B debriefing
- C no psychological or physiological harm
- D voluntary participation

### QUESTION 13

Which of the following things does an operational hypothesis **not** need to include?

- A how the variables are controlled
- B how the variables are manipulated
- C how the variables are measured
- D the population from which the sample is taken

### Area of study 2: Learning

### QUESTION 14

Classical conditioning involves repeated association between the

- A unconditioned stimulus and unconditioned response.
- B unconditioned stimulus and conditioned response.
- C unconditioned stimulus and conditioned stimulus.
- D unconditioned response and neutral stimulus.

### QUESTION 15

The neutral stimulus is named as such because it

- A reverses the effects of classical conditioning.
- B does not produce a naturally occurring response.
- C acts like an extraneous variable during conditioning.
- D produces a conditioned response.

### QUESTION 16

In classical conditioning, when the conditioned response is not produced to stimuli other than the original stimulus this is known as

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

**QUESTION 17**

One difference between classical conditioning and one trial learning is that in classical conditioning extinction

- A is more likely to occur.
- B is less likely to occur.
- C never occurs.
- D always occurs.

**QUESTION 18**

Taste aversions are a very powerful form of classical conditioning, this is because

- A they are likely to be generalised to other stimuli.
- B they help to enhance a species survival.
- C they are only seen in higher order species.
- D they are also a form of operant conditioning.

**QUESTION 19**

Thorndike's work into trial and error involved cats being placed in a puzzle box. The cats had to learn to operate on their environment to escape. He found that

- A the amount of time taken for the cats to escape would increase.
- B the amount of time taken for the cats to escape would decrease.
- C the number of incorrect responses the cats made would increase.
- D there would be no change in the number of incorrect responses.

**QUESTION 20**

The law of effect states that behaviour that is followed by \_\_\_\_\_ consequences is strengthened and behaviour that is followed by \_\_\_\_\_ consequences is weakened.

- A satisfying; annoying
- B unpleasant; pleasant
- C instrumental; unpleasant
- D pleasant; instrumental

**QUESTION 21**

Operant conditioning involves the learner establishing a connection between the \_\_\_\_\_ and the \_\_\_\_\_.

- A unconditioned stimulus; response
- B response; conditioned stimulus
- C consequences; neutral stimulus
- D behaviour; consequences

**QUESTION 22**

When an individual is learning to establish a response through operant conditioning, they are best to be reinforced

- A intermittently.
- B every second time a response occurs.
- C continuously.
- D all the time, even if the response does not occur.

**QUESTION 23**

Jesse is a beagle who is learning to sit. She is given a treat on average every third time she sits. This is a

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

**QUESTION 24**

In operant conditioning, negative reinforcement \_\_\_\_\_ the likelihood of the behaviour occurring again, and punishment \_\_\_\_\_ the likelihood of the behaviour occurring again.

- A increases; increases
- B increases; decreases
- C decreases; increases
- D decreases; decreases

**ONE ANSWER PER LINE****USE PENCIL ONLY**

- |    |   |   |   |   |
|----|---|---|---|---|
| 8  | A | B | C | D |
| 9  | A | B | C | D |
| 10 | A | B | C | D |
| 11 | A | B | C | D |
| 12 | A | B | C | D |
| 13 | A | B | C | D |
| 14 | A | B | C | D |
| 15 | A | B | C | D |
| 16 | A | B | C | D |

- |    |   |   |   |   |
|----|---|---|---|---|
| 17 | A | B | C | D |
| 18 | A | B | C | D |
| 19 | A | B | C | D |
| 20 | A | B | C | D |
| 21 | A | B | C | D |
| 22 | A | B | C | D |
| 23 | A | B | C | D |
| 24 | A | B | C | D |

**QUESTION 25**

Which of the following is not traditionally a factor that influences the effectiveness of reinforcement?

- A order of presentation
- B appropriateness of reinforcer
- C type of reinforcer
- D timing of reinforcer

**QUESTION 26**

Charles is training his dog Elphie to jump through a hoop. He starts by putting the hoop on the ground and letting Elphie walk through it, then he raises it a bit so her feet have to come off the ground. Finally he puts the hoop in the air and she jumps through it. Charles has used \_\_\_\_\_ to train Elphie.

- A learning set
- B classical conditioning
- C law of effect
- D shaping

**QUESTION 27**

Watson’s work with Little Albert demonstrated that a fear response could be conditioned. What stimulus was Little Albert originally conditioned to fear?

- A a loud gong
- B cotton balls
- C a white rat
- D a snake

**QUESTION 28**

Psychologists do not look upon Watson’s work favourably in terms of ethical standards. Why is this so?

- A The child was too young to be experimented upon.
- B Albert’s full name has been published in many textbooks.
- C His fear response was not extinguished.
- D Watson harmed him physically during the experiment.

**QUESTION 29**


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

- A voluntary; involuntary
- B involuntary; voluntary
- C passive; active
- D active; passive

**QUESTION 30**

Jason is 10 years old and is learning to snowboard. He spends several hours watching video replays of the last Winter Olympics and can’t wait to be a champion himself. According to observational learning principles, which component will most likely be missing to enable Jason to be able to snowboard like his idols?

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

<b>ONE ANSWER PER LINE</b>				<b>USE PENCIL ONLY</b> 					
25	A	B	C	D	28	A	B	C	D
26	A	B	C	D	29	A	B	C	D
27	A	B	C	D	30	A	B	C	D

**Section B: Short answer questions**

**Specific instructions to students**

- Answer all questions in the spaces provided.

**Area of study 1: Memory**

**QUESTION 1**

1 mark

Explain why memory is described as an *active* process.

Answer:

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**QUESTION 2**

3 marks

Jayde has been learning how to drive a manual car. Her driving instructor starts by teaching her how to put the car in first gear and start driving. On her first lesson it takes Jayde six attempts to start the car but on her second lesson she starts driving the car on her second attempt. Calculate the amount of information Jayde has saved from her first lesson by substituting the appropriate information into the savings formula below.

Savings = \_\_\_\_\_ ×

=

=

Answer:

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**QUESTION 3** 1 + 1 + 1 = 3 marks

**a** Provide **one** example of information that is stored in the visuospatial sketchpad of working memory.

Answer:

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**b** Provide **one** example of information that is stored in the phonological loop of working memory.

Answer:

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**c** Where does this information typically go to be integrated with information from other memory stores?

Answer:

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**QUESTION 4** 2 marks

Describe **one** situation in which proactive interference may typically occur and clearly explain how one set of information interferes with another.

Answer:

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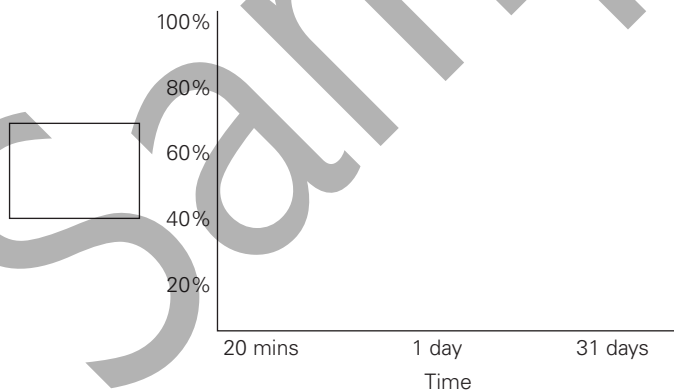
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**QUESTION 5** 3 marks

Plot Ebbinghaus' forgetting curve on the axis below and label the vertical axis.



**QUESTION 6** 2 + 1 = 3 marks

**a** Discuss the difference between state dependent and context dependent cues.

Answer:

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**b** What is one similarity between state dependent and context dependent cues?

Answer:

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**QUESTION 7** 1 + 1 = 2 marks

According to psychological research, results must be statistically significant for a conclusion to be drawn.

**a** What does statistically significant mean?

Answer:

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**b** Give one example of a p-value that would suggest results are statistically significant in psychological research.

Answer:

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**Area of study 2: Learning**

**QUESTION 8** 2 marks

Name and explain **one** behaviour that is not dependent on learning.

Answer:

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**QUESTION 9** 3 + 1 + 1 + 2 = 7 marks

Toby has a German shepherd that always wags his tail when Toby walks in the door and pats him after a long day at work. Toby decides to get an automatic garage door put in so he can park his car inside the garage overnight. The door opens up automatically when the car is within 100 metres. After a week or so of using the new garage door Toby's wife notices that their dog starts wagging his tail when he it hears the garage door opening.

**a** Identify the following classical conditioning elements in this example.

**i unconditioned stimulus:**

\_\_\_\_\_

**ii conditioned stimulus:**

\_\_\_\_\_

**iii conditioned response:**

\_\_\_\_\_

**b** Discuss where in the example above *acquisition* takes place.

**Answer:**

\_\_\_\_\_

\_\_\_\_\_

**c** Toby goes away to a conference on the weekend and lets his brother come over on Saturday to use the garage to do some work. Toby's dog eventually stops wagging his tail to the sound of the garage door. Explain why this is so.

**Answer:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**d** How would we expect Toby's dog to react when the garage door opens again on Sunday morning? Explain your answer.

**Answer:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**QUESTION 10** 2 marks

What is *one trial learning*? Provide an example to help illustrate.

**Answer:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**QUESTION 11** 2 marks

Skinner taught pigeons through operant conditioning to peck at a switch mounted on a wall when a green light was shown. Discuss how these pigeon's could have demonstrated stimulus generalisation and stimulus discrimination.

**Stimulus generalisation:**

\_\_\_\_\_  
\_\_\_\_\_

**Stimulus discrimination:**

\_\_\_\_\_  
\_\_\_\_\_

**QUESTION 12** 1 + 1 = 2 marks

Give **one** example of how learning set can have a positive transfer of skills from one situation to another and **one** example of how learning set can have a negative transfer of skills from one situation to another.

**Positive transfer example:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Negative transfer example:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Area of study 3: Research Investigation**

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

**Early exposure to music**

A researcher wanted to investigate the relationship between children's exposure to music at a young age and their musical ability later in life. The researcher advertised in the local paper for participants. Sixty-five parents of children aged 3-5 years answered the advertisement. The children were screened, and 40 children were chosen for the experiment. The researcher randomly allocated 20 children into one group, and 20 children into another.

The children in group 1 were exposed to music every day for a one-year period. Exposure to music included playing music, dancing to music and creating music. The children in group 2 were not exposed to any music for one year.

Years later, the researcher located the participants from both groups after they had entered high school. He gave them all a practical test which involved them playing scales on an instrument of their choice and a written test on music theory.

He found that children in group 1 averaged 85% on these tasks, whilst children in group 2 averaged 82% on these tasks.

He found that the difference in music abilities between group 1 and 2 was found to be  $p > 0.05$ .

**QUESTION 13** 1 mark

What is the aim of the experiment above?

Answer:

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**QUESTION 14** 2 marks

Write a suggested operational hypothesis for this experiment.

Answer:

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**QUESTION 15** 2 + 1 = 3 marks

**a** Explain the difference between an independent and dependent variable.

Answer:

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**b** What is the independent variable for this study?

Answer:

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**QUESTION 16** 1 + 1 = 2 marks

It was suggested to the experimenter that he should have used a stratified sample.

**a** How could this have been achieved?

Answer:

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**b** What is **one** disadvantage of using a stratified sample?

Answer:

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**QUESTION 17** 2 marks

Discuss **one** extraneous variable that may have influenced the results of this experiment.

Answer:

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**QUESTION 18** 2 marks

Are the results of this experiment statistically significant? Explain your answer.

Answer:

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**QUESTION 19** 2 marks

When writing a research report what is the difference between a conclusion and a generalisation?

Answer:

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