Captivate
EDUCATION

Psychology

Question and Answer Book

Practice examination 1 – 2027

Student name _____

Teacher _____

- Reading time is 15 minutes
- Writing time is 2 hours 30 minutes

Materials supplied

- Question and Answer Book
- Multiple-Choice Answer Sheet

Instructions

- Follow the instructions on your Multiple-Choice Answer Sheet.
- At the end of the examination, place your Multiple-Choice Answer Sheet inside the front cover of this book.

Students are not permitted to bring mobile phones and/or any unauthorised electronic devices into the examination room.

Contents

Section A (40 questions, 40 marks)

Section B (9 questions, 80 marks)

Assessment criteria for Section B

Practice material in the layout of the 2025 VCAA paper – generated 2027. Not a VCAA examination.

SAMPLE

Section A – Multiple-choice questions

Instructions

- Answer **all** questions in pencil on your Multiple-Choice Answer Sheet.
- 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.
- Unless otherwise indicated, the diagrams in this book are not drawn to scale.

Question 1

Which one of the following most accurately identifies the effect of glutamate and the effect of dopamine on neural activity?

	Glutamate	**Dopamine**
A.	inhibitory effect that makes the postsynaptic neuron less likely to fire	excitatory effect that acts quickly at a single synapse
B.	modulatory effect on many neurons at once	excitatory effect that makes the postsynaptic neuron more likely to fire
C.	excitatory effect that makes the postsynaptic neuron more likely to fire	inhibitory effect that makes the postsynaptic neuron less likely to fire
D.	excitatory effect that makes the postsynaptic neuron more likely to fire	modulatory effect on the activity of many neurons, including those involved in reward and motivation

Question 2

In Aboriginal and Torres Strait Islander ways of knowing, learning is best described as

A. an individual process in which knowledge is transferred from a teacher to a learner through written text.

B. a process embedded in relationships, in which the learner is part of a multimodal system of knowledge patterned on Country.

C. a process of trial and error in which behaviours followed by satisfying consequences are repeated.

D. a process in which the learner observes a single model and reproduces the model's behaviour when reinforced.

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Question 3

While cooking, Zara touches a hot pan and pulls her hand away before she feels any pain. A moment later she says 'ouch' and holds her hand under cold running water.

Holding her hand under cold running water is best described as

A. a conscious response initiated by the spinal cord and then confirmed by the brain.

B. an unconscious response coordinated by the autonomic nervous system.

C. a conscious response initiated by the brain and carried out by the somatic nervous system.

D. a spinal reflex that occurs after the pain message reaches the brain.

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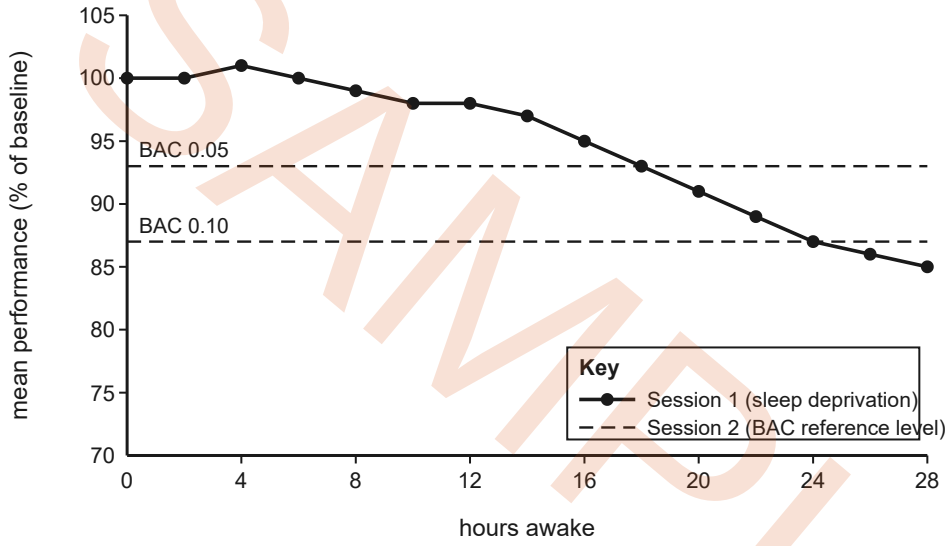
Use the following information to answer Questions 4–7.

A study based on the methodology of Dawson and Reid (1997) investigated the effects of one night of full sleep deprivation on performance. Forty adults aged 20–35 years were recruited from a university. Each participant completed two sessions at least one week apart, and the order of the sessions was alternated between participants.

Session 1 – participants stayed awake for 28 hours, beginning at 8 am, and completed a hand–eye coordination task every two hours.
Session 2 – participants consumed alcohol at 30-minute intervals until their blood alcohol concentration (BAC) reached 0.10, completing the same task after each drink.

Performance on the task was expressed as a percentage of each participant's own baseline score. Graph 1 shows mean performance during Session 1. The two dashed horizontal lines show the mean performance recorded in Session 2 at BAC readings of 0.05 and 0.10.

Graph 1



Source: Scenario and data are original; the method is based on that described in D Dawson and K Reid, 'Fatigue, alcohol and performance impairment', *Nature*, 388, 1997, p. 235, https://doi.org/10.1038/40775

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Question 4

Session 1 is best described as an investigation of

A. partial sleep deprivation, because participants had slept the night before the session began.
B. full sleep deprivation, because participants went without any sleep across an entire night.
C. partial sleep deprivation, because the quality of the participants' sleep was reduced.
D. chronic sleep deprivation, because the session lasted longer than 24 hours.

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Marking scheme – teacher copy

Practice examination 1 – 2027

Not for distribution to students.

Section	Questions	Marks available	Marks awarded
Section A	40	40	
Section B	9	80	
Total		**120**	

Section A

Question	Key	Question	Why
1	**D**	Which one of the following most accurately identifies the effect of glutamate and the effect of dopamine on neural activity?	Glutamate is the main excitatory neurotransmitter: it makes the postsynaptic neuron more likely to fire. Dopamine is a neuromodulator: rather than acting only at one synapse, it alters the activity of large groups of neurons, including those involved in reward and motivation. Option A was incorrect because it assigns GABA's inhibitory role to glutamate. Option B reverses the two roles. Option C was incorrect because dopamine is not classed as an inhibitory neurotransmitter.

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2	**B**	In Aboriginal and Torres Strait Islander ways of knowing, learning is best described as	Option B reproduces the study design's framing: learning is embedded in relationships, and the learner is part of a multimodal system of knowledge patterned on Country. Option A describes a written-culture, individual transfer of knowledge. Option C describes operant conditioning and option D describes observational learning.
3	**C**	While cooking, Zara touches a hot pan and pulls her hand away before she feels any pain. A moment later she says 'ouch' and holds her hand under cold running water. Holding her hand under cold running water is best described as	Holding the hand under water is a deliberate, voluntary action initiated by the brain and carried out by skeletal muscles under the control of the somatic nervous system. Option A was incorrect because the spinal cord initiates only the reflex withdrawal, not the later voluntary action. Option B was incorrect because moving the hand is not an autonomic response. Option D was incorrect because a spinal reflex occurs before, not after, the brain registers pain.
4	**B**	Session 1 is best described as an investigation of	Participants went without sleep for a whole night (they were awake from 8 am until noon the next day), which is one night of full sleep deprivation. Options A and C describe partial sleep deprivation, which is a reduction in the quantity or quality of sleep rather than the absence of sleep. Option D was incorrect because a single 28-hour session is acute, not chronic.

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5	**C**	According to Graph 1, the number of hours awake after which mean performance first fell to the level recorded at a BAC of 0.10 was approximately	Reading Graph 1, the Session 1 line meets the BAC 0.10 reference line (87% of baseline) at 24 hours awake. At 16 hours performance was about 95%, at 20 hours about 91%, so options A and B were incorrect. Option D was incorrect because performance had already fallen below the BAC 0.10 level by 28 hours.
6	**D**	The researchers also asked participants to rate their mood every two hours during Session 1. Which one of the following is the most likely **affective** effect of being awake for 24 hours?	Affective effects concern mood and emotion: irritability is the affective effect. Options A and C are behavioural effects and option B is a cognitive effect. Students needed to notice the bold word 'affective' in the stem.
7	**A**	Consider the following statements about the study. Statement 1 – After 24 hours awake, the participants' mean performance was equivalent to their mean performance at a BAC of 0.10. Statement 2 – People who have been awake for 24 hours should not be permitted to drive. Statement 3 – Sleep deprivation impairs performance more than alcohol does. Which of the statements are conclusions supported by the data in Graph 1?	Statement 1 restates what Graph 1 shows (performance at 24 hours awake equal to performance at BAC 0.10), so it is a conclusion supported by the data. Statement 2 is an implication or recommendation that goes beyond the data. Statement 3 compares the size of the two impairments, which the data do not allow because alcohol and sleep deprivation were not compared at matched points. Options B, C and D each include at least one statement that is not a conclusion.

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