

# Psychology marking guide and solution

Sample external assessment 2020

## Science (95 marks)

### Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

1. describe and explain localisation of function in the brain, visual perception, memory, learning, social psychology, interpersonal processes, attitudes and cross-cultural psychology
2. apply understanding of localisation of function in the brain, visual perception, memory, learning, social psychology, interpersonal processes, attitudes and cross-cultural psychology
3. analyse evidence about localisation of function in the brain, visual perception, memory, learning, social psychology, interpersonal processes, attitudes and cross-cultural psychology to identify trends, patterns, relationships, limitations or uncertainty
4. interpret evidence about localisation of function in the brain, visual perception, memory, learning, social psychology, interpersonal processes, attitudes and cross-cultural psychology to draw conclusions based on analysis.

**Note:** Objectives 5, 6 and 7 are not assessed in this instrument.

## Introduction

The Queensland Curriculum and Assessment Authority (QCAA) has developed mock external assessments for each General senior syllabus subject to support the introduction of external assessment in Queensland.

An external assessment marking guide (EAMG) has been created specifically for each mock external assessment.

The mock external assessments and their marking guides were:

- developed in close consultation with subject matter experts drawn from schools, subject associations and universities
- aligned to the external assessment conditions and specifications in General senior syllabuses
- developed under secure conditions.

## Purpose

This document consists of an EAMG and an annotated response.

The EAMG:

- provides a tool for calibrating external assessment markers to ensure reliability of results
- indicates the correlation, for each question, between mark allocation and qualities at each level of the mark range
- informs schools and students about how marks are matched to qualities in student responses.

## Mark allocation

Where a response does not meet any of the descriptors for a question or a criterion, a mark of '0' will be recorded.

Where no response to a question has been made, a mark of 'N' will be recorded.

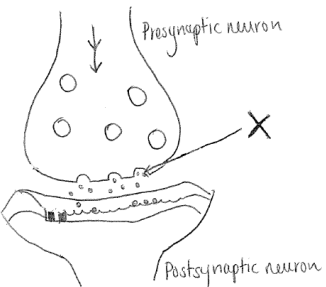
# External assessment marking guide

## Paper 1: Multiple-choice

Question	Response
1	C
2	D
3	D
4	C
5	A
6	D
7	A
8	C
9	A
10	C
11	D
12	C
13	C
14	A
15	C

Question	Response
16	C
17	C
18	A
19	D
20	B
21	A
22	D
23	C
24	A
25	C
26	C
27	A
28	A
29	B
30	A

## Paper 1: Short response

Question	Sample response	The response
31	 <p>Presynaptic neuron</p> <p>Postsynaptic neuron</p>	<ul style="list-style-type: none"> <li>• shows neurotransmitters being released from the presynaptic neuron into the synaptic gap and moving into ion channels of the postsynaptic neuron through the use of an arrow to show direction [1 mark]</li> <li>• indicates an X at a point where the neurotransmitter release occurs [1 mark]</li> </ul>
32	<p>Group social influence refers to the influence or the presence of other people on thoughts, feelings and behaviours.</p> <p>Compliance refers to instances where a person may agree in public with a group of people, but privately disagrees with the group's viewpoint or behaviour.</p> <p>Internalisation is the process of accepting a set of norms established by a group that are influential and intrinsically rewarding to the individual.</p>	<ul style="list-style-type: none"> <li>• describes group social influence [1 mark]</li> <li>• describes how compliance is a type of group social influence [1 mark]</li> <li>• describes how internalisation is a type of group social influence [1 mark]</li> </ul>
33	<p>Ageism is a mixture of negative thoughts and stereotypes and feelings of fear or hostility that results in discrimination based on age.</p> <p>Ageism could occur in the workplace where people of any age can experience prejudice, e.g. age may determine practices such as older employees not being promoted.</p>	<ul style="list-style-type: none"> <li>• describes prejudice expressed as ageism [1 mark]</li> <li>• identifies an example of ageism [1 mark]</li> </ul>

Question	Sample response	The response
34	<p>Motivation can influence how we interpret the world around us. It can be influenced by psychological factors, including what you are interested in, what your priorities are and your mood.</p> <p>Motivation can also be influenced by physiological factors such as pain, hunger and body temperature (how you are physically feeling at the time), which predispose you to be more aware of stimuli that may address those needs.</p> <p>For example, participants in the food-deprived groups more readily recognised food-related words, demonstrating that the physiological factor of being hungry influences visual perception.</p>	<ul style="list-style-type: none"> <li>explains how motivation acts as a psychological influence on visual perception [1 mark]</li> <li>explains how motivation acts as a physiological influence on visual perception [1 mark]</li> <li>identifies an example relevant to the investigation [1 mark]</li> </ul>
35	<p>Empathy reflects the ability to perceive and be sensitive to the emotional states of others, which then motivates an individual to respond with prosocial behaviour.</p> <p>For example, a student may empathise with their friend and as a result offer tutoring assistance if they see that they are stressed and anxious about an upcoming exam.</p>	<ul style="list-style-type: none"> <li>describes empathy as a prosocial behaviour [1 mark]</li> <li>identifies an example of empathy as a prosocial behaviour [1 mark]</li> </ul>
36	<p>Equality involves social interaction that occurs at the same level, without obvious differences in power or status. It has been shown that equal-status contact reduces prejudice.</p> <p>For example, school students of different races working together on a class project would likely lead to a reduction in prejudice due to the challenge to held stereotypes.</p>	<ul style="list-style-type: none"> <li>describes one way to reduce prejudice [1 mark]</li> <li>identifies an example appropriate to the selected way to reduce prejudice [1 mark]</li> </ul>

Question	Sample response	The response
37	<p>Primary socialisation is associated with the early years of development through close relationships, whereas secondary socialisation involves learning group roles within the broader community.</p> <p>An example of primary socialisation is a child growing up without brothers or sisters, whose parents become their primary agents of socialisation.</p> <p>An example of secondary agents of socialisation is the relationships formed at childcare.</p>	<ul style="list-style-type: none"> <li>• describes the difference between the two terms [1 mark]</li> <li>• identifies an example of primary socialisation from the investigation [1 mark]</li> <li>• identifies an example of secondary socialisation from the investigation [1 mark]</li> </ul>
38	<p>Modelling is when a person performs a behaviour that is seen by another person (the learner), whereas vicarious conditioning is when a learner observes a model being either reinforced or punished for their behaviour.</p>	<ul style="list-style-type: none"> <li>• describes the difference between the two terms [1 mark]</li> </ul>
39	<p>Glu is an excitatory neurotransmitter whereas GABA is an inhibitory neurotransmitter.</p>	<ul style="list-style-type: none"> <li>• describes the difference between the two terms [1 mark]</li> </ul>
40	<p>Explicit racism involves any thoughts or behaviours that demonstrate a conscious acknowledgement of racist attitudes and beliefs.</p>	<ul style="list-style-type: none"> <li>• describes explicit racism [1 mark]</li> </ul>

Question	Sample response	The response
41	<p>Culture shock is the feeling of disorientation and anxiety that occurs as people from one culture encounter and attempt to adapt to the practices, rules and expectations of another culture.</p> <p>On returning to their home country, international students may experience culture shock, finding it difficult to adjust to the rules of their home culture.</p> <p>Acculturation occurs when people attempt to adopt and adapt aspects of the new culture, while still retaining many elements of their cultural heritage.</p> <p>On returning to their home country, international students may attempt to adapt aspects of the new culture to their home country's culture.</p>	<ul style="list-style-type: none"> <li>• explains culture shock as a psychological challenge of immigration [1 mark]</li> <li>• identifies an example of culture shock from the real world that is relevant to the investigation [1 mark]</li> <li>• explains acculturation as a psychological challenge of immigration [1 mark]</li> <li>• identifies an example of acculturation from the real world that is relevant to the investigation [1 mark]</li> </ul>
42	<p>The significance of the experiment was that it lead to further research into conformity.</p>	<ul style="list-style-type: none"> <li>• describes the significance of Asch's research for social psychological research [1 mark]</li> </ul>

## Paper 2: Short response

Question		Sample response	The response
1	a)	Due to social norms for group behaviour, participants may have had an expectation to favour their in-group over the out-group when they were asked to reward points during the investigation.	<ul style="list-style-type: none"> <li>• predicts the behaviour of the participants in the investigation [1 mark]</li> </ul>
	b)	<p>The investigation provided evidence for social categorisation, which occurs when the social environment is divided into in-groups (to which an individual belongs) and out-groups (to which the individual does not belong). Once the participants were allocated to a certain group, such as over-estimators, they categorised themselves into in-groups and out-groups.</p> <p>The investigation provided evidence for social identification, which is the part of the self-concept based on membership in one or more social groups. Participants' social identities were re-aligned from their existing house groups to the groups to which they were allocated by experimenters.</p>	<ul style="list-style-type: none"> <li>• describes how the investigation provided evidence of two elements of social identity theory [2 marks]</li> <li>• identifies corresponding examples of two elements from the investigation [2 marks]</li> </ul>
2	a)	<p>A learned fear response is the repeated pairing of a neutral stimulus with an unconditioned stimulus until the individual is conditioned to respond in fear to the neutral stimulus. A large bar was struck when a rat was presented to Albert B, resulting in a learned fear response, manifested as crying when solely presented with the rat and other similar white furry animals and objects.</p>	<ul style="list-style-type: none"> <li>• describes learned fear responses [1 mark]</li> <li>• identifies an example of learned fear responses from the case study [1 mark]</li> </ul>
	b)	The amygdala.	<ul style="list-style-type: none"> <li>• identifies the amygdala [1 mark]</li> </ul>



Question		Sample response	The response
	c)	<p>The unconditioned stimulus (UCS) was the loud noise generated by striking a metal bar with a hammer.</p> <p>The unconditioned response (UCR) was the distress of the infant.</p>	<ul style="list-style-type: none"> <li>identifies the noise generated by striking the metal bar with a hammer as the unconditioned stimulus (UCS) [1 mark]</li> <li>identifies the distress, crying and increased breathing of the infant as the unconditioned response (UCR) [1 mark]</li> </ul>
	d)	<p>Stimulus generalisation occurs when the conditioned response is elicited by similar stimuli to the conditioned stimuli being presented. Stimulus discrimination occurs when the conditioned response only occurs with the conditioned stimulus.</p> <p>Albert B demonstrated stimulus generalisation because he produced the same response (fear, distress, crying) to the original conditioned stimulus (the white rat) and to all similar stimuli (white fluffy animals/objects).</p>	<ul style="list-style-type: none"> <li>identifies a difference between the two terms [1 mark]</li> <li>identifies an example of one of the terms from the case study [1 mark]</li> </ul>
	e)	<p>Extinction occurs when the conditioned stimulus is repeatedly presented without the unconditioned stimulus so that the association is weakened.</p> <p>Researchers never had the opportunity to remove the association between the sound produced by the striking of the bar, and the presentation of the rat, and therefore the behaviour (fear response) was never experimentally extinguished.</p>	<ul style="list-style-type: none"> <li>describe extinction in classical conditioning [1 mark]</li> <li>identifies an example of extinction relevant to the case study [1 mark]</li> </ul>

Question		Sample response	The response
3	a)	<p>Explicit long-term memory contains factual information and can be known as semantic memory.</p> <p>Questioners would have retrieved information from their semantic memories to construct the ten 'challenging but not impossible' quiz questions for the contestants.</p> <p>Explicit memory also contains events that have a personal significance which is known as episodic memory.</p> <p>Participants would have retrieved information from their episodic memories when asked to complete a questionnaire in which they rated their own and their partner's general knowledge following the quiz.</p>	<ul style="list-style-type: none"> <li>• identifies the first component of long-term memory [1 mark]</li> <li>• identifies an example of the first component of long-term memory from the investigation [1 mark]</li> <li>• identifies the second component of long-term memory [1 mark]</li> <li>• identifies an example of the second component of long-term memory from the investigation [1 mark]</li> </ul>
	b)	Dispositional attribution.	<ul style="list-style-type: none"> <li>• identifies dispositional attribution [1 mark]</li> </ul>
	c)	Situational attribution.	<ul style="list-style-type: none"> <li>• identifies situation attribution [1 mark]</li> </ul>
4	a)	<p>The frontal lobe assists with social skills. Participants were encouraged to find out about their dates' personalities, interests and personal histories in order to get to know them through conversation. The frontal lobe also assists with coordination of voluntary movement. Participants were asked to stand and move on to their next date.</p>	<ul style="list-style-type: none"> <li>• recalls the first function of the frontal lobes [1 mark]</li> <li>• identifies an example of the first function evident in the investigation [1 mark]</li> <li>• recalls the second function of the frontal lobes [1 mark]</li> <li>• identifies an example of the second function evident in the investigation</li> </ul>

Question		Sample response	The response
			[1 mark]
	b)	<p>The origin of attraction investigated was similarity.</p> <p>They found that perceived similarity significantly predicted romantic attraction.</p>	<ul style="list-style-type: none"> <li>describes similarity as the origin of attraction investigated [1 mark]</li> <li>identifies evidence supporting the theory in the investigation [1 mark]</li> </ul>
	c)	<p>One biological theory of attraction is intersexual selection, whereby certain characteristics have evolved in both males and females in order to increase their physical attractiveness to the opposite sex and increase the likelihood of mate attraction.</p> <p>In the investigation, the participants rated their dates for certain perceived characteristics, therefore it could be predicted that those rated as more physically attractive would also be given higher romantic liking scores.</p>	<ul style="list-style-type: none"> <li>describes a biological theory of attraction [1 mark]</li> <li>identifies evidence from the investigation that would support this theory [1 mark]</li> </ul>
5	a)	<p>Implicit attitudes are attitudes that regulate thought and behaviour unconsciously and automatically.</p> <p>The results of the experiment demonstrated that exposing participants to words in the scrambled-sentence task passively activated a stereotype about older people (unconscious, implicit attitudes towards older people), resulting in a slower walking speed after the experiment.</p>	<ul style="list-style-type: none"> <li>describes implicit attitudes [1 mark]</li> <li>identifies an example of implicit attitudes from the experiment [1 mark]</li> </ul>

Question		Sample response	The response						
	b)	<p>Stereotypes are oversimplified images of people who belong to a particular group, causing individuals to appear more similar than they are and consequently affecting attitudes. The affective component of the tri-component model of attitudes consists of feelings or emotions toward the object or person. The behavioural component of the tri-component model of attitudes refers to a person's actions towards various people, objects or institutions. The cognitive component of the tri-component model of attitudes is what a person thinks about the object or person. An example of the behavioural component from the experiment is that participants in the older person primed condition walked more slowly than the participants in the control group. An example of the cognitive component from the experiment is the belief held by participants that older people walk slowly.</p>	<ul style="list-style-type: none"> <li>describes stereotypes [1 mark]</li> <li>describes the affective component of the tri-component model of attitudes [1 mark]</li> <li>describes the behavioural component of the tri-component model of attitudes [1 mark]</li> <li>describes the cognitive component of the tri-component model of attitudes [1 mark]</li> </ul> <ul style="list-style-type: none"> <li>identifies two examples from any of the tri-component model of attitudes from the experiment [2 marks]</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>identifies one example from any of the tri-component model of attitudes from the investigation [1 mark]</li> </ul>						
6	a)	<table border="1"> <thead> <tr> <th>Psychology class</th> <th><i>r</i></th> </tr> </thead> <tbody> <tr> <td>B</td> <td>0.43</td> </tr> <tr> <td>A</td> <td>0.97</td> </tr> </tbody> </table>	Psychology class	<i>r</i>	B	0.43	A	0.97	<ul style="list-style-type: none"> <li>predicts Psychology Class B as <math>r = 0.43</math> and Psychology Class A as <math>r = 0.97</math> [1 mark]</li> </ul>
Psychology class	<i>r</i>								
B	0.43								
A	0.97								
	b)	<p>The Pearson correlation coefficient in Class A (0.97) is greater than that for Class B (0.43). This indicates that for Class A, the number of older people primes was a strong predictor of the mean walking times, while in Class B the number of older people primes is a much</p>	<ul style="list-style-type: none"> <li>identifies a difference between the two correlation coefficients [1 mark]</li> <li>recognises a relationship between the older people primes and mean walking times [1 mark]</li> </ul>						

Question		Sample response	The response
		weaker predictor of the mean walking times.	
	c)	As the number of older people primes in the scrambled-sentence tasks increased, the mean walking times of participants also increased which resulted in slower walking in Class A.	<ul style="list-style-type: none"> <li>identifies an appropriate conclusion from the dataset [1 mark]</li> </ul>