

Psychology marking guide and response

External assessment 2021

Combination response (94 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.

Purpose

This document consists of a marking guide and a sample response.

The marking guide:

- 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 mapped to qualities in student responses.

The sample response

- demonstrates the qualities of a high-level response
- has been annotated using the marking guide.

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.

Marking guide

Paper 1: Multiple choice

Question	Response
1	B
2	C
3	C
4	D
5	B
6	A
7	C
8	A
9	B
10	D
11	B
12	A
13	D
14	A
15	A
16	D
17	C
18	D
19	A
20	B
21	D
22	A
23	B
24	C
25	C

Paper 1: Short response

Q	Sample response	The response:
26	<p>The spinal cord is the part of the central nervous system that transmits information from sensory neurons to the brain, and from the brain to motor neurons that initiate movement.</p> <p>Spinal reflexes carry sensory information via sensory (afferent) neurons from a receptor to the spinal cord via interneurons, and then motor information is carried via motor (efferent) neurons to the required organs or muscles.</p>	<ul style="list-style-type: none"> • identifies the role of the spinal cord in the human nervous system [1 mark] • describes a spinal reflex [1 mark]
27	<p>Modelling is imitating the behaviour and actions of a model to become more like them or achieve what they achieve, whereas in vicarious conditioning, we are more likely to perform a certain behaviour if we observe someone being rewarded for that behaviour.</p>	<ul style="list-style-type: none"> • distinguishes between modelling and vicarious conditioning [1 mark]
28	<p>A psychological influence on visual perception is past experience.</p> <p>The police trainees were more likely to recall the violent images because they had been subjected to more violent situations (past experience) than the undergraduate students.</p>	<ul style="list-style-type: none"> • identifies past experience as a psychological influence on visual perception [1 mark] • explains how past experience influenced the findings of the study [1 mark]
29	<p>Assimilation is a psychological challenge of immigration because it entails the complete absorption of a person into the dominant culture, while losing touch with their traditional culture.</p>	<ul style="list-style-type: none"> • describes why assimilation is a psychological challenge of immigration [1 mark]

Q	Sample response	The response:
30	<p>1. the limbic system</p> <p>2. the amygdala</p>	<ul style="list-style-type: none"> identifies a brain area responsible for emotion [1 mark] identifies a second brain area responsible for emotion [1 mark]
31	<p>Forgetting occurs in long-term memory because other memories interfere with information retrieval when identifying familiar and unfamiliar songs. Participants in Group 2 experienced interference between the familiar tune and unfamiliar lyrics, leading to decreased identification of songs due to the pre-existing association between lyrics and tune.</p>	<ul style="list-style-type: none"> describes forgetting due to interference effects [1 mark] identifies an example of interference effects from the experiment [1 mark]
32	<p>Colour blindness is caused by faulty photopigments, which are typically genetically inherited from your parents.</p>	<ul style="list-style-type: none"> determines the biological influence is genetic or references faulty photopigments [1 mark]
33	<p>Transduction begins when light enters the eye and activates photoreceptors. These photoreceptors in turn connect to bipolar cells that pass information to ganglion cells. Finally, the electrical signals move along the axons of the ganglion cells through the optic nerve to the visual cortex in the brain.</p>	<ul style="list-style-type: none"> explains that transduction begins when light enters the eye and activates photoreceptors [1 mark] explains that photoreceptors pass electrical energy to bipolar and then ganglion cells [1 mark] explains that ganglion cells pass electrical energy through the optic nerve to the visual cortex in the brain [1 mark]

Q	Sample response	The response:
34	A conditioned stimulus (CS) is when a stimulus, through learning, produces a reflex-based response. In the image, the CS is the bell.	<ul style="list-style-type: none"> states what is meant by the conditioned stimulus [1 mark] identifies the bell [1 mark]
35	<p>The duration of visual sensory memory is approximately 500 milliseconds.</p> <p>The limited duration of visual sensory memory is evident in the experiment, as participants were unable to recall all the letters that were shown for 50 milliseconds.</p> <p>Visual sensory memory is believed to have an unlimited capacity.</p> <p>The capacity of visual sensory memory is evident in the experiment, because participants reported that they were aware of more letters but were unable to state them before they were forgotten.</p>	<ul style="list-style-type: none"> describes the duration of visual sensory memory [1 mark] identifies the results of the experiment that demonstrate the duration of visual sensory memory [1 mark] identifies the capacity of visual sensory memory [1 mark] identifies the results of the experiment that demonstrate the capacity of visual sensory memory [1 mark]
36	Social identity theory (SIT) demonstrates the crucial role of social categorisation in intergroup behaviour. SIT does not provide a cognitive explanation of behaviour.	<ul style="list-style-type: none"> identifies one strength of social identity theory [1 mark] identifies one limitation of social identity theory [1 mark]

Q	Sample response	The response:
37	<p>Similarity: Serotonin and dopamine are both neurotransmitters or chemical messengers.</p> <p>Difference: Dopamine function plays an integral role in the reward system that controls motivation, desire and cravings, whereas serotonin mostly resides in the gut's enterochromaffin cells, where it helps to regulate the movement of the digestive system.</p> <p>Significance: the functions are mutually exclusive.</p>	<ul style="list-style-type: none"> • identifies a similarity between the functions of dopamine and serotonin [1 mark] • identifies a difference between the functions of dopamine and serotonin [1 mark] • identifies a significance of the similarity or difference [1 mark]

Q	Sample response	The response:
38	<p>An argument for elaborative rehearsal is the evidence suggesting that it increases understanding due to deep processing of information.</p> <p>For example, when studying for a test, linking new information to information already stored in long-term memory has been shown to increase recall.</p> <p>An argument against elaborative rehearsal is that it takes longer because it is more active and requires more effort than other forms of rehearsal, e.g. maintenance rehearsal.</p> <p>For example, when studying for a test, the process of linking new information to information already stored in long-term memory can be a time-intensive process in comparison to rote learning information, as in maintenance rehearsal.</p>	<ul style="list-style-type: none"> · identifies an argument for elaborative rehearsal as a strategy to improve memory [1 mark] · provides an example supporting elaborative rehearsal [1 mark] · identifies an argument against elaborative rehearsal as a strategy to improve memory [1 mark] · provides an example against elaborative rehearsal [1 mark]

Paper 2: Short response

Q	Sample response	The response:
1a)	<p>Positive reinforcement is when a stimulus is given to reinforce behaviour, whereas negative reinforcement occurs when a stimulus is removed, reduced or prevented to reinforce behaviour.</p> <p>One pigeon was positively reinforced to turn counter-clockwise until the food hopper was presented, resulting in the pigeon making two or three turns between reinforcements.</p>	<ul style="list-style-type: none"> • distinguishes between positive and negative reinforcement [1 mark] • provides an example of a positively reinforced response from the experiment [1 mark]
1b)	<p>Extinction is when the learnt response gradually decreases in strength or rate of response after reinforcement stops.</p> <p>In the experiment, the pigeons gradually stopped performing the desired action when they were not given food for performing the action.</p> <p>Spontaneous recovery is the reappearance of a previously reinforced response after a period of apparent extinction.</p> <p>In the experiment, the pigeons started performing the action again after a period of not performing it at the same rate as when there was reinforcement.</p>	<ul style="list-style-type: none"> • describes extinction [1 mark] • identifies an example of extinction from the experiment [1 mark] • describes spontaneous recovery [1 mark] • identifies an example of spontaneous recovery from the experiment [1 mark]
1c)	<p>A difference in Skinner's experiment is that the consequences of the pigeon's response was vital to the process of learning, whereas in Pavlov's experiment, the dog's behaviour had no consequences.</p>	<ul style="list-style-type: none"> • identifies a difference between the experiments by Skinner and Pavlov [1 mark]

Q	Sample response	The response:
2a)	<p>Explicit attitudes are attitudes at the conscious level that are deliberately formed and easy to self-report while interacting with the world.</p> <p>An example is asking participants who were paid \$200 to identify explicit attitudes by rating a boring task as fun and enjoyable.</p> <p>Implicit attitudes are attitudes at the subconscious level that are involuntarily formed and unknown to us.</p> <p>An example is asking participants who were only paid \$1 (not a sufficient incentive for lying) to change the implicit attitudes of the confederates by convincing them that a boring task was fun and enjoyable.</p>	<ul style="list-style-type: none"> describes explicit attitudes [1 mark] identifies an example of an explicit attitude from the experiment [1 mark] describes implicit attitudes [1 mark] identifies an example of an implicit attitude from the experiment [1 mark]
2b)	<p>Compliance is the group social influence in the Asch experiment, as some participants changed their attitude publicly to fit in with the group. This is shown when 37 (74 %) conformed on at least one occasion by giving the same wrong answer as the confederates.</p>	<ul style="list-style-type: none"> describes compliance [1 mark] provides an example of compliance in the Asch experiment [1 mark]
2c)	<p>Participants will intentionally give incorrect answers in the public response condition.</p> <p>The participants in the public response condition are likely to demonstrate conformity by changing their behaviour to accommodate the standards of the group.</p>	<ul style="list-style-type: none"> predicts the behaviour of the participants in the follow-up study [1 mark] gives a reason for the prediction relating to conformity [1 mark]
2d)	<p>Yes, participants are likely to have experienced cognitive dissonance.</p> <p>Participants didn't really believe in the incorrect answers but were influenced to give incorrect answers due to social expectation.</p>	<ul style="list-style-type: none"> infers that participants experienced cognitive dissonance [1 mark] identifies a valid reason [1 mark]
2e)	<p>Asch's experiment was significant in establishing that individuals are susceptible to normative influence and will go against their own beliefs to conform to the group.</p>	<ul style="list-style-type: none"> identifies the significance of Asch's experiment for social psychological research [1 mark]

Q	Sample response	The response:
3a)	<p>Inter-sexual selection theory suggests that females, due to the higher costs experienced before, during and after child rearing, tend to pick a genetically fit partner who is able and willing to provide resources, whereas males select partners they deem to be fertile based on certain physical characteristics.</p> <p>Evidence for this theory from the study is that females tended to prefer males who show 'ambition-industriousness and other signs of earning potential'.</p> <p>Further evidence is that males in the study preferred females who were 'physically attractive', as this is often viewed as a sign of fertility.</p>	<ul style="list-style-type: none"> · describes a relevant biological theory of attraction [1 mark] · identifies an example of the theory from the study [1 mark] · identifies a second example of the theory from the study [1 mark]
3b)	<p>Culture is a set of attitudes, behaviours and symbols shared by a large group of people and usually communicated from one generation to the next. It may have an influence on selecting a mate.</p> <p>Cultures were grouped into regions such as Asia, Oceania, Middle East and Eastern Europe for analysis, due to perceived similarity of attitudes and behaviours towards mate characteristics.</p>	<ul style="list-style-type: none"> · describes culture [1 mark] · gives an example from the study [1 mark]
3c)	<p>The study sought to determine whether people tended to choose romantic partners on the basis of similar or shared attitudes, values and interests.</p>	<ul style="list-style-type: none"> · identifies how similarity as the origin of attraction was relevant to the study [1 mark]
3d)	<p>Evidence consistent with similarity as an origin of attraction can be seen in countries perceived to have similar attitudes, values and beliefs tending to have similar ratings for partner preferences, e.g. the Nordic countries (Finland, Sweden and Norway).</p> <p>Evidence inconsistent with similarity as an origin of attraction can also be seen, with countries perceived to not have similar attitudes, values and beliefs having similar ratings for partner preferences, e.g. Estonia, Ireland and Japan.</p>	<ul style="list-style-type: none"> · identifies evidence consistent with similarity as an origin of attraction [1 mark] · identifies evidence inconsistent with similarity as an origin of attraction [1 mark]

Q	Sample response	The response:
4a)	The central nervous system	<ul style="list-style-type: none"> states the central nervous system [1 mark]
4b)	<p>Broca's: is in the frontal lobe.</p> <p>Wernicke's: is in the temporal lobe.</p> <p>Geschwind's: is in the parietal lobe.</p>	<ul style="list-style-type: none"> identifies the frontal lobe as the location for Broca's area [1 mark] identifies the temporal lobe as the location for Wernicke's area [1 mark] identifies the parietal lobe as the location for Geschwind's territory [1 mark]
4c)	<p>Broca's area is responsible for the production of language.</p> <p>Wernicke's area is responsible for the comprehension of language.</p> <p>Geschwind's territory assists in the processing of different kinds of stimuli, including auditory, visual and sensorimotor stimuli simultaneously, assisting other language areas to comprehend spoken and written language.</p> <p>The results for the direct pathway support the type of processing that occurs in Wernicke's area, as it shows evidence for the phonological comprehension of language.</p> <p>The results for the indirect pathways support the type of processing that occurs in Geschwind's territory, as this area integrates auditory stimuli to assist Wernicke's area with the comprehension of language.</p> <p>The results for the indirect pathways also support the processing that occurs in Broca's area and Geschwind's territory, as these areas are primarily responsible for the comprehension and production of speech.</p>	<ul style="list-style-type: none"> states the language processing that occurs in Broca's area [1 mark] states the language processing that occurs in Wernicke's area [1 mark] states the language processing that occurs in Geschwind's territory [1 mark] identifies evidence from the experiment that supports the language processing in Broca's area [1 mark] identifies evidence from the experiment that supports the language processing in Wernicke's area [1 mark] identifies evidence from the experiment that supports the language processing in Geschwind's territory [1 mark]

Q	Sample response	The response:
5a)	7	<ul style="list-style-type: none"> determines the median [1 mark]
5b)	<p>The silent condition had the least amount of uncertainty and therefore provided the best estimate of the population mean, as the confidence interval error bar is smaller than that for the noisy condition.</p> <p>The confidence intervals for the silent and noisy conditions overlap by more than 50%, indicating that there is no statistical difference between the two conditions.</p> <p>It can't be concluded that study environment influences recall.</p>	<ul style="list-style-type: none"> draws a quantitative conclusion about the error bars as an estimate of uncertainty in the data [1 mark] draws a quantitative conclusion that there is no statistical difference between the two conditions [1 mark] draws a qualitative conclusion about the result of the experiment [1 mark]



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