



Cambridge International AS & A Level

PSYCHOLOGY

9990/11

Paper 1 Approaches, Issues and Debates

October/November 2023

MARK SCHEME

Maximum Mark: 60

Published

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These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

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Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
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(for point-based marking)****1 Components using point-based marking:**

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From this it follows that we:

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2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
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- For levels of response marking, the level awarded should be annotated on the script.
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Question	Answer	Marks	Guidance
1(a)	In the study by Andrade (doodling), the participants were given a surprise recall test for two categories of information that was presented in the telephone message. One of these categories was the names of the party-goers. Name the other category of information that the participants were asked to recall from the telephone message. 1 mark for correct point. Take the first answer only. Places.	1	Accept location/city names.
1(b)	For the names of party-goers, ‘false alarms’ given by the participants were noted. Outline the <u>two</u> types of false alarms given by the participants when recalling the names of the party-goers. 1 mark per correct point. New names/names not in the message. Names used as lures in the message / non-party goers.	2	List is definitive. Plausible mis-hearings were counted as correct so no credit. Accept ‘lures’ by itself. Accept ‘wrong names’ as meaning ‘new names’.

Question	Answer	Marks	Guidance
2(a)	From the study by Piliavin et al. (subway Samaritans): Outline what the model was supposed to do in the ‘Critical area – early’ condition. 1 mark for each correct point. Model stood in middle of (critical) car. Waited until passing the fourth station / waited for approximately 70 s. Then began to help the victim.	2	List is definitive. If the time given is incorrect (but less than 70s) and they state ‘could then go help the victim’, award BOD 1

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2(b)	Describe the victim in the drunk condition. At least 1 mark <u>must</u> come from below: Smelled of liquor. Carried a liquor <u>bottle wrapped</u> in a brown bag / brown paper. 1 mark per correct point (maximum 1): Wore Eisenhower jacket / old slacks / no tie. Aged 26–35 years. Male. Black or white.	2	Accept any age from within the range. List is definitive.
3	Explain <u>one</u> problem that could arise if children were used as participants in the study by Baron-Cohen et al. (eyes test). 1 mark for identification of the problem. 1 mark for elaboration of the problem (can be linked to study or not) 1 mark for linking it to Baron-Cohen et al. e.g., There are ethical issues with using children (1 mark: identification). This could be protection from psychological harm (1 mark: elaboration). In this study, children may have found the procedure stressful as it could have felt like a test or examination (1 mark: link). Children may not understand what is being asked of them (1 mark: identification). Therefore, the children may not understand how the eyes test works (1 mark: elaboration). As a result, the children may have seen it as a game and therefore theory of mind might not have been measured (1 mark: link). There are other creditworthy problems, such as, getting easily bored, randomly choosing, not understanding words/emotions.	3	Go with the intention of the candidate. If more than one problem presented, mark all and credit the best. Cannot be awarded 1 mark for simply stating it reduces/affects validity. Do not accept any argument about not being generalisable.

Question	Answer	Marks	Guidance
4(a)	Saavedra and Silverman studied a boy with a phobia of buttons. One aim was to investigate whether exposure to buttons would help to treat his phobia. Outline <u>one</u> other aim of this study. 2 marks full aim. 1 mark partial/brief aim e.g. To investigate what caused / reason for having the phobia of buttons in a boy (2 marks). To investigate the role of classical conditioning in the (button) phobia of a boy (2 marks). To investigate the role of fear and disgust in relation to his/a phobia (2 marks). To investigate evaluative learning (1 mark).	2	If candidate refers to a different method to treat the phobia then BOD 1. (e.g., positive reinforcement). Mention of imagery exposure or behavioural exposure = 0
4(b)	Outline how the boy's severity rating for buttons changed during behavioural exposure sessions. 1 mark per correct point. The severity rating remained the same for the first two sessions. The ratings increased from session 2 to session 3. The ratings increased from session 3 to session 4.	2	The list is definitive. Reject reference to it reducing or the 8 to 5 to 3 rating as this is for imagery exposure and not behavioural exposure. Can award 1 mark if all they say is 'it increased'.
4(c)	State <u>two</u> results from the post-treatment assessment session. 1 mark per correct point. The boy reported minimal distress / less distress / decreased anxiety. He no longer met the (DSM) criteria for a specific phobia. He was now wearing (clear plastic) buttons (on his school uniform). He was doing this every day / on a daily basis.	2	The list is definitive. Accept 'his phobia had gone'. Ignore comments about being able to hug his mother.

Question	Answer	Marks	Guidance
5(a)	In the study by Bandura et al. (aggression), the final part of the procedure was named the ‘test for delayed imitation’. Describe the procedure used to ‘test for delayed imitation’. 1 mark per correct point. There were a variety of toys in the (experimental) room. The child spent 20 minutes in the (experimental) room. Behaviour was observed through a one-way mirror. Behaviour was rated on predetermined response categories. e.g., imitation of physical aggression, imitative verbal aggression, imitative nonaggressive responses (2 named for 1 mark). The session was divided into 5 second intervals. Using an electric interval timer. A total of 240 response units were recorded per participant. The male model completed all observations. Half were then rated by a second observer (for inter-rater reliability).	4	List is definitive. Ignore any reference to aggression arousal as this is a different part of the study.
5(b)	Outline <u>one</u> conclusion from this study. 2 marks detailed conclusion. 1 mark partial/brief. e.g., Witnessing an aggressive act is enough to produce aggression in the person who observed it (2 marks). Boys are more likely to imitate aggression compared to girls (2 marks). Children who see aggressive models are more likely to imitate aggression than those seeing a non-aggressive model / no model (2 marks) Girls are more likely to imitate verbal aggression (1 mark). People will imitate aggression (1 mark). Boys are more likely to imitate same-sex models (1 mark).	2	Ignore any results presented.

Question	Answer	Marks	Guidance
6(a)	From the study by Dement and Kleitman (sleep and dreams): Describe the psychology being investigated in this study. 1 mark per 'psychology' point made. 1 mark available for an explicit example from the study. Creditworthy 'psychology' includes sleep patterns, dreaming, REM, nREM, EEGs e.g., Rapid Eye Movement / REM sleep is a phase of sleep where a person is paralysed. Their eyes flicker and they can breathe but all other muscles are paralysed. Non-Rapid Eye Movement / nREM sleep are the other (four) stages of sleep and they differ in brain activity. Dreaming is a subjective experience of imagery whilst we are asleep. Electroencephalograms (EEGs) measure brain wave activity. They are used to measure the amplitude and frequency of brain waves.	4	use tick-e when you award the 'example mark'
6(b)	Explain why this study is from the biological approach. 1 mark per point made that explains why it is biological. e.g., Dement was using an EEG / measured <u>brain activity</u> (1 mark) to investigate how it is connected to <u>stages</u> of sleep / REM and nREM (1 mark). Dement was using an EOG / measured <u>eye movements</u> (1 mark) to investigate how it is connected to dream <u>content</u> (1 mark).	2	An assumption of the biological approach can be awarded 1 mark max. 1 mark max for basic statement, e.g., they were studying the brain or sleep is a natural process etc.

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7	Suggest <u>two</u> real-world applications based on the study by Canli et al. (brain scans and emotions). Your suggestions <u>must</u> be ethical. 1 mark for what the application is (clearly based on Canli et al.) 1 mark for how it will be achieved. e.g. People in advertising may want to use emotionally intense imagery (1 mark: what). The images in this study that were rated emotionally intense were remembered better so products linked to this type of imagery may also be well remembered (1 mark: how) Psychologists may want to use the same procedure with people <u>who have memory difficulties</u> (1 mark: what). If a patient does not remember emotionally intense imagery then they may have a problem with / may have a damaged amygdala (1 mark: how). This can be used with students to help learning (1 mark: what). Highly arousing images can be used to help them remember (1 mark: how).	4	Annotate with a tick for what the application is and a + for how it will be achieved. The 'what' can be anything emotionally intense (positive imagery).

Question	Answer	Marks	Guidance
8	Two friends, Rose and Yaroslav, are discussing the validity of the study by Milgram (obedience). Rose thinks the study has validity but Yaroslav thinks the study does not have validity. Explain <u>one</u> reason why Rose is correct and <u>one</u> reason why Yaroslav is correct, using evidence from this study. 1 mark per correct point. 3 marks for Rose. 1 mark available for identifying a relevant type of validity. 3 marks for Yaroslav. 1 mark available for identifying a relevant type of validity. e.g., Rose The study did have a degree of mundane realism (1 mark). All participants received 45 v sample shock before the study began (1 mark) meaning that the participants were more likely to believe that the shocks they were giving were real (1 mark). The study did have some internal validity (1 mark). Milgram ensured that there were some controls present in the study like the pre-set responses from the learner (1 mark). This ensured that Milgram could conclude that the responses were causing the stressful reactions seen in the participants (1 mark). e.g., Yaroslav The study lacked ecological validity (1 mark). This is because the set-up of shocking a stranger during a memory test is not a real situation (1 mark) so the responses may only be what people would do in this unreal situation / might not be what people would do in a real-life destructive obedience situation (1 mark).	6	Only credit identification of type once if repeated for Rose and Yaroslav, for example, mundane realism. For Rose: Standardisation = 0. Any mention of IV/DV = max 1. Quantitative data = max 1. Control of extraneous variables + an example = max 2. Demand characteristics = max 2. For Yaroslav: If argument is population validity but they use the term generalisability then max 1.

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9(a)	Describe the sample used in the study by Pepperberg (parrot learning). 1 mark per correct point. Sample of 1. African grey (parrot). Already been in studies on communication / cognitive abilities. Already produce vocal labels for colour/shape/material. Knew some of the objects already. Already shown limited comprehension of abstract concepts. Already has the ability to communicate needs (e.g., ‘wanna go gym’).	4	List is definitive. Do not credit opportunity sample.

Question	Answer	Marks	Guidance												
9(b)	Explain whether each ethical guideline below, relating to animals, was broken in the study by Pepperberg (parrot learning): • housing • pain and distress • reward • species and strain For each guideline, use the following banded mark scheme: <table><tr><th>Level</th><th>Descriptor</th><th>Marks</th></tr><tr><td>2</td><td>The answer explicitly describes the ethical guideline <i>and</i> the example is contextualised from the named study</td><td>2</td></tr><tr><td>1</td><td>The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation OR The ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct</td><td>1</td></tr><tr><td>0</td><td>The description of the ethical guideline is incorrect and/or the contextualised example is incorrect OR no answer given</td><td>0</td></tr></table> e.g., housing Housing should consider the social behaviour of species (e.g., caging). Alex was housed alone which might be stressful as parrots are social (broken). e.g., pain and distress Researchers should always attempt to minimise pain and distress that might arise in a study. Alex was not subjected to any painful procedures if he got an answer wrong (it was a verbal punishment) (not broken). When Alex did get an answer wrong he was scolded verbally which could have caused distress (broken).	Level	Descriptor	Marks	2	The answer explicitly describes the ethical guideline <i>and</i> the example is contextualised from the named study	2	1	The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation OR The ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct	1	0	The description of the ethical guideline is incorrect and/or the contextualised example is incorrect OR no answer given	0	8	Do not credit tautological answers: e.g., housing is about housing animals etc. Go with the intentions of the candidate. Mark each guideline independently and annotate with SEEN, L1 or L2. Credit provided with food and water as example. Ignore comments about not being in the wild Credit example about being punished for incorrect response. For species and strain accept arguments about Alex not being endangered. Also, do credit tested many times / over many days so this could have strained him.
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9(b)	e.g., reward Rewards should be tailored to the animal and based on preferred food choices / object choice. Alex was rewarded with the objects if he got a question correct / he could self-reward by asking for food and it would be given (not broken). e.g., species and strain Researchers should choose an appropriate species for their study / least likely to suffer. Alex had been used for over 10 years in different studies about cognitive abilities so was an ideal participant (not broken) / he was a solitary parrot and they are social so he may have suffered (broken).		

Question	Answer	Marks	Guidance						
10	Evaluate the study by Laney et al. (false memory) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about ethics. Suitable strengths include internal validity, reliability, quantitative data. Suitable weaknesses include ethics, external validity, generalisability. <table><tr><th></th><th>Additional guidance</th></tr><tr><td> Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material. </td><td> 10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Laney et al. study and it includes the named evaluation point, in depth. </td></tr><tr><td> Level 3 (6–7 marks) - Evaluation is good. - Answer demonstrates some planning and is well organised. - Analysis is often evident but may not be consistently applied. - Answer demonstrates a good understanding of the material. </td><td> Max 6: if the answer does not include the named evaluation point. Max 6: if The candidate has given one strength and one weakness and they are in the context of the Laney et al. study and in-depth. </td></tr></table>		Additional guidance	Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material.	10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Laney et al. study and it includes the named evaluation point, in depth.	Level 3 (6–7 marks) - Evaluation is good. - Answer demonstrates some planning and is well organised. - Analysis is often evident but may not be consistently applied. - Answer demonstrates a good understanding of the material.	Max 6: if the answer does not include the named evaluation point. Max 6: if The candidate has given one strength and one weakness and they are in the context of the Laney et al. study and in-depth.	10	Use tick-d for detailed (so the candidate clearly explains why it is a strength or a weakness). Use tick-b for brief (tends to not explain why). Rules (points in context) If all tick-b then Level 2 max If mixture of tick-b and tick-d then likely Level 3 If three tick-d and one tick-b then Level 4 8 marks max All have to be tick-d and in context to gain Level 4 If no points are in context then Level 1 max, unless well explained then Level 2
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10	Level 2 (4–5 marks) - Evaluation is mostly appropriate but limited. - Answer demonstrates limited organisation or lacks clarity. - Analysis is limited. - Answer lacks consistent levels of detail and demonstrates a limited understanding of the material.	Max 5: The candidate has given either two strengths or two weaknesses (contextualised). Max 4: if The candidate has given one strength or weakness that is in the context of the Laney et al. study which is in-depth		
	Level 1 (1–3 marks) - Evaluation is basic. - Answer demonstrates little organisation. - There is little or no evidence of analysis. - Answer does not demonstrate understanding of the material.	Max 3: The candidate has given two evaluation points that are generic/brief. Max 2: The candidate has given one evaluation point that is generic/brief.		
	Level 0 (0 marks) No response worthy of credit.	If the answer is a description of the study		



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1(a)	The study by Baron-Cohen et al. used the eyes test as a measure of theory of mind. The eyes test results were negatively (inversely) correlated with the results of another measure. Name this measure. 1 mark for correct answer. Take the first answer only. Autism [Spectrum] Quotient/AQ.	1	Reject IQ. Reject Autism Spectrum Test.
1(b)	Outline the Group 4 sample from this study. 1 mark per correct point. Random sample. General population. n=14. IQ matched with Group 1 / similar to Group 1/AS-HFA group. Same age distribution as Group 1. Mean IQ = 116. Mean age = 28 years Not diagnosed with AS/HFA.	2	List is definitive. No tolerance on n or IQ. Age tolerance 27–29 years. Ignore reference to ‘normal people’. Do not credit <u>do not suffer</u> from AS/HFA

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Question	Answer	Marks	Guidance
2	The study by Saavedra and Silverman investigated a boy with a phobia of buttons. The boy reported an experience that he thought was the cause of his button phobia. Describe the experience the boy reported. 1 mark per correct point. The incident happened when he was five years old / happened four years before study. There was an art project / during art class (using buttons). He had run out of buttons (for his project). He was asked to go to the front of the class to get more (buttons). They were in a large bowl (on the teacher's desk). His hand slipped as he reached for the bowl / accidentally knocked over the bowl. All of the buttons fell down on him.	4	List is definitive.

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3	Explain <u>one</u> problem that could arise if children were used as participants in the study by Canli et al. (brain scans and emotions). 1 mark for identification of the problem. 1 mark for elaboration of the problem (can be linked to study or not) 1 mark for linking it to Canli et al. e.g. fMRI/MRI scans were used in the study to measure brain structure/activity (1 mark: elaboration). This requires participants to be still which might be difficult for children (1 mark: identification). This could mean that none of the scans would be useful / be completed successfully (1 mark: link) Children may lack understanding of emotions (1 mark: identification) and this study was dealing with complex emotions like tranquil (1 mark: elaboration) so it would not be a valid test of brain function and emotion (1 mark: link) e.g., identification of other creditworthy problems include: Children would need to keep still during the brain scans (1 mark). Children may be scared to enter the machine so refuse to go in (1 mark). The children may find images distressing / scared of pictures (1 mark).	3	Go with the intention of the candidate. If more than one problem presented, mark all and credit the best. Cannot be awarded 1 mark for simply stating it reduces / affects validity. Unethical/ethical issues can be the identification of the problem.

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Question	Answer	Marks	Guidance
4(a)	In the study by Pepperberg (parrot learning), a principal trainer was used during the ‘test procedures’. Describe the procedure that the principal trainer followed during the ‘test procedures’. 1 mark per correct point. She was sat in the room with her back to Alex / the parrot. She did not look at Alex / the parrot during the presentation of (test) objects. She did not know what object was being presented. She repeated out loud what Alex / the parrot said. It was then decided if the response was correct/incorrect /indistinct.	4	The list is definitive.
4(b)	Outline <u>one</u> conclusion from this study. 2 marks detailed conclusion. 1 mark partial/brief. No credit for any actual results. Must be generic. e.g. That an avian subject, an African Grey parrot, showed <u>symbolic comprehension</u> / cognitive ability of the concept <u>same/different</u>. (2 marks) It would therefore appear that <u>symbolic representation</u>, in this case of same/different, is not exclusive to primates (2 marks) The study showed that he could comprehend same/different (1 mark) Not only primates can understand same/different (1 mark) Alex's accuracy rate was 70% for novel objects (0 marks = result).	2	If the same/different does not mention symbolic but does explain a mechanism as to why, for example, SLT or Model/Rival, then award 2 marks.

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Question	Answer	Marks	Guidance
5(a)	The study by Piliavin et al. (subway Samaritans) used models and victims. Name <u>two</u> features of the models used in this study. 1 mark per correct feature White. Males. Aged 24–29 years. Informally clothed / not the same attire / casual clothing. Students from Columbia University.	2	Accept any age answer in the range. List is definitive.
5(b)	Outline <u>one</u> result in relation to the time taken to help the victims. 2 marks for result with a meaningful comparison. 1 mark for partial result / no meaningful comparison. e.g., The average time it took people to help the ill victim was significantly faster than the average time taken to help the drunk victim (2 marks). People were consistently faster to help in groups of 7 compared to groups of 3 (2 marks). People helped the ill victim faster (on average) (1 mark). People were slower to help in groups of 3 (1 mark).	2	Ignore reference to any results about early versus late as the participants never knew this would happen.

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Question	Answer	Marks	Guidance
5(c)	Outline <u>one</u> result in relation to participants leaving the critical area. 2 marks for result with a meaningful comparison. 1 mark for partial result / no meaningful comparison. e.g., People were more likely to leave the critical area when the victim was black compared to when the victim was white (2 marks). People were more likely to leave the critical area when the victim was drunk compared to when the victim was ill (2 marks). People were more likely to leave the critical area when help had not been offered within 70s (of collapse) compared to when help had been given (2 marks). 34 people left the critical area (1 mark) on 21 (20%) of trials (1 mark). People left the critical area less when the victim was white (1 mark).	2	

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Question	Answer	Marks	Guidance
6(a)	From the study by Andrade (doodling): Describe the background to this study. 1 mark per correct point made. e.g., Daydreaming had been linked to moments of boredom in people. In these situations, people may resort to doodling to help concentration. Dual task designs are used to pinpoint our cognitive resources. Arousal levels need to be maintained to be able to concentrate. Boredom plays a role in paying attention to information. Information processing can be difficult when asked to do 'two things at once'. It has been assumed that doing concurrent tasks (e.g., doodling) impairs concentration / distracts from primary task. The effects of boredom on processing have been overlooked.	4	No credit for providing <u>results</u> from the Andrade study, but 1 mark available for the aim of Andrade's study.

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Question	Answer	Marks	Guidance
6(b)	Explain why this study is from the cognitive approach. 2 marks = clearly linked to cognitive approach (either through example or assumption) 1 mark = partially linked to cognitive approach e.g., One assumption of the cognitive approach is that behaviour can be explained using cognitive systems like attention (1 mark) and this study examined the role of split attention in recall (1 mark). Differences between people can be attributed to individual patterns of cognition (1 mark) and in this study not all people recalled the same amount of correct information (1 mark).	2	

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Question	Answer	Marks	Guidance
7	Suggest <u>two</u> real-world applications based on the study by Yamamoto et al. (chimpanzee helping). Your suggestions must be ethical. 1 mark for what the application is (clearly based on Yamamoto et al.). 1 mark for how it will be achieved. e.g. The procedure could be used in schools to teach about helping behaviour (1 mark: what); teachers could set up a similar scenario so that children have to interact / understand the needs of others to be able to complete the task of helping someone else (1 mark: how) Parents can use these ideas to promote helping behaviour in their children (1 mark: what). Parents can reward their children when specific helping behaviours are seen (to increase the likelihood they continue) (1 mark: how) A teacher can use rewards in the classroom to motivate children (1 mark: what).	4	Annotate with a tick for what the application is and a + for how it will be achieved. Do not credit the same 'what' twice (e.g., teachers in classroom), but do credit different 'hows'. Suggestions based on the use of rewards are creditworthy here.

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Question	Answer	Marks	Guidance
8	Two friends, Zayn and Danna, are discussing the nature versus nurture debate in relation to the study by Bandura et al. (aggression). Zayn thinks the study supports the nature side of the debate but Danna thinks the study supports the nurture side of the debate. Explain <u>one</u> reason why Zayn is correct and <u>one</u> reason why Danna is correct using evidence from this study. 1 mark per correct point. 3 marks for Zayn. 1 mark for defining nature. 3 marks for Danna. 1 mark for defining nurture. e.g., Zayn Nature is about behaviours being genetically encoded and with us from birth (1 mark: definition). Boys were more physically aggressive than girls across a range of the conditions irrespective of the sex of the model (1 mark). This could be due to them having higher levels of testosterone which is biological (1 mark). e.g., Danna Nurture is about the learning of behaviours through experiences / after birth (1 mark: definition). Participants in all conditions had already been matching on (pre-existing) aggression levels yet, for instance, male participants were much more likely to imitate a physically aggressive male role model (1 mark). Therefore, this imitated behaviour must have been learned (1 mark).	6	For Zayn, do not credit 'naturally' for a definition. For Danna, do not credit 'nurtured' for a definition. For Danna, definition of nurture + they observed/imitated = 2 marks. For Danna, accept arguments about being exposed to aggression at home etc. for 1 mark max. If there is no explicit evidence presented from Bandura then max 2. An explicit explanation must be present for max 3.

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Question	Answer	Marks	Guidance
8	Participants had been matched on levels of aggression (1 mark) and there were differences in levels of imitated behaviour depending if a model was aggressive or not so learned (1 mark). They learned to be aggressive by observing/imitating a model (1 mark).		

Question	Answer	Marks	Guidance
9(a)	From the study by Schachter and Singer (two factors in emotion): Describe the sample. 1 mark per correct point. (predominantly) volunteers/90% volunteers. n=184/185. 1 refused to participate. Males. (College) students / undergraduates. Taking introductory psychology class / studying psychology. University of Minnesota. All cleared with Student Health Service. Two extra points on final examination (for every hour).	4	List is definitive. Sample size tolerance 180–190. Do not credit ‘given course credit’. Accept alternative spellings of Minnesota.

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Question	Answer	Marks	Guidance												
9(b)	Explain whether each ethical guideline below was broken in the study by Schachter and Singer (two factors in emotion). • Confidentiality • Lack of Deception • Privacy • Protection from physical harm For each guideline, use the following banded mark scheme: <table><tr><th>Level</th><th>Descriptor</th><th>Marks</th></tr><tr><td>2</td><td>The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.</td><td>2</td></tr><tr><td>1</td><td>The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation, OR The ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study, OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct.</td><td>1</td></tr><tr><td>0</td><td>The description of the ethical guideline is incorrect and/or the contextualised example is incorrect, OR no answer given</td><td>0</td></tr></table>	Level	Descriptor	Marks	2	The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.	2	1	The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation, OR The ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study, OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct.	1	0	The description of the ethical guideline is incorrect and/or the contextualised example is incorrect, OR no answer given	0	8	Annotate with L2, L1 or SEEN. Do not credit tautological answers: e.g., they kept their names confidential etc. Accept arguments about a deceptive aim here.
Level	Descriptor	Marks													
2	The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.	2													
1	The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation, OR The ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study, OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct.	1													
0	The description of the ethical guideline is incorrect and/or the contextualised example is incorrect, OR no answer given	0													

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Question	Answer	Marks	Guidance
9(b)	Confidentiality e.g., Any data should not be identifiable as a single participants' responses / participants' data must not be named as theirs. All we know is that there were male students from the University of Minnesota / only the doctors had access to their medical records. Lack of Deception e.g., A participant should not be deceived without a strong justification / only if revealing the deception would not cause discomfort. This guideline was broken as they were told the wrong information whilst getting the injection. Privacy e.g., Researchers should always attempt to refrain from making participants reveal personal details (that they would not reveal in everyday life). The questionnaire in the anger condition made participants rate various traits about family members which were sensitive matters. Protection from physical harm e.g., Participants should leave the study in the same physical state as they entered. The guideline was broken as the participants did receive an injection which may have caused physical pain. The guideline was not broken as the injection was given by a professional doctor to ensure minimal pain.		

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Question	Answer	Marks	Guidance				
10	Evaluate the study by Milgram (obedience) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about validity. Suitable strengths include: reliability, use of controls (linked to elements of internal validity), quantitative data Suitable weaknesses include: ethics, external validity, quantitative data <table><tr><th></th><th>Additional guidance</th></tr><tr><td> Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material. </td><td> 10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Milgram study and it includes the named evaluation point, in depth. </td></tr></table>		Additional guidance	Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material.	10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Milgram study and it includes the named evaluation point, in depth.	10	Use tick-d for detailed (so the candidate clearly explains why it is a strength or a weakness). Use tick-b for brief (tends to not explain why). Rules (points in context) If all tick-b then Level 2 max If mixture of tick-b and tick-d then likely Level 3 If three tick-d and one tick-b then Level 4 8 marks max All have to be tick-d and in context to gain Level 4 If no points are in context then Level 1 max, unless well explained then Level 2
	Additional guidance						
Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material.	10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Milgram study and it includes the named evaluation point, in depth.						

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Question	Answer		Marks	Guidance
10	Level 3 (6–7 marks) • Evaluation is good. • Answer demonstrates some planning and is well organised. • Analysis is often evident but may not be consistently applied. • Answer demonstrates a good understanding of the material.	Max 6: if the answer does not include the named evaluation point. Max 6: if The candidate has given one strength and one weakness and they are in the context of the Milgram study and in-depth.		
	Level 2 (4–5 marks) • Evaluation is mostly appropriate but limited. • Answer demonstrates limited organisation or lacks clarity. • Analysis is limited. • Answer lacks consistent levels of detail and demonstrates a limited understanding of the material.	Max 5: The candidate has given either two strengths or two weaknesses (contextualised). Max 4: if The candidate has given one strength or weakness that is in the context of the Milgram study which is in-depth		

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Question	Answer		Marks	Guidance
10	Level 1 (1–3 marks) • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material.	Max 3: The candidate has given two evaluation points that are generic/brief. Max 2: The candidate has given one evaluation point that is generic/brief.		
	Level 0 (0 marks) No response worthy of credit.	If the answer is a description of the study		



Cambridge International AS & A Level

PSYCHOLOGY

9990/13

Paper 1 Approaches, Issues and Debates

October/November 2023

MARK SCHEME

Maximum Mark: 60

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

PUBLISHED**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

PUBLISHED**Social Science-Specific Marking Principles
(for point-based marking)****1 Components using point-based marking:**

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

- a** DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
- b** DO credit alternative answers/examples which are not written in the mark scheme if they are correct
- c** DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons ...).
- d** DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
- e** DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
- f** DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
- g** DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

3 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

Question	Answer	Marks	Guidance
1(a)	From the study by Milgram (obedience): State the percentage of participants who pressed the 300–volt level switch. 1 mark for the correct answer. Take the first answer only. 100(%)	1	No tolerance.
1(b)	Outline the payment given to participants. 1 mark per correct point. They were paid \$4.50. Told it was simply for coming to the laboratory. They were told they could keep it no matter what happened.	2	List is definitive. Tolerance is \$4–\$5 Credit 50c for taxi ride.

Question	Answer	Marks	Guidance
2	From the study by Pepperberg (parrot learning): Describe the procedure of the ‘Transfer Tests with Novel Objects’. 1 mark per correct point. At least 1 must come from the following: Alex was presented with (pairs of) objects never used in training. They also had not been used in any previous tests asking same/different. The objects may also have been ‘totally’ novel/never encountered before. 1 mark per correct point (maximum 3): These objects were kept on a shelf in view of Alex. Therefore, at least one of the pair of objects was unfamiliar to Alex. These could be colours/shapes he had no label for. He was then asked, ‘What’s Same?’/‘What’s Different?’ If he answered correctly he was praised or rewarded (kept object)/if incorrect the experimenter said ‘no’.	4	List is definitive. If a candidate has not been awarded 4 marks, they can gain one mark for one of the following: Principal trainer sat with back to Alex. Principal trainer did not know what objects were being presented. Principal trainer repeated what Alex said. Do not credit ‘given novel objects’ as it is in the Q. Accept ‘unfamiliar’ as novel.

Question	Answer	Marks	Guidance
3	Explain <u>one</u> problem that could arise if children were used as participants in the study by Laney et al. (false memory). 1 mark for identification of the problem. 1 mark for elaboration of the problem (can be linked to study or not) 1 mark for linking it to Laney et al. e.g. Children's linguistic ability/experiences of food are not the same as adult (1 mark: identification). The questionnaires used (potentially had) terminology on that a child may find difficult to comprehend (1 mark: elaboration) for example would a child know what sautéed asparagus is? (1 mark: link). Children would be an inappropriate sample to use (1 mark: identification). The aim of the study was about a childhood memory before the age of 10 (1 mark: link) so this would not be possible if children under 10 were used (1 mark: elaboration). There are other creditworthy problems including ethical issues.	3	Go with the intention of the candidate. Do not accept anything about generalisations. One mark must be from an example from Laney. Unethical enough for ID.

Question	Answer	Marks	Guidance
4(a)	From the study by Schachter and Singer (two factors in emotion). Describe the procedure from immediately after the injection to immediately before the stooge began his standardised behaviours. 1 mark per correct point. The experimenter brought a stooge into the room. The experimenter introduced the stooge to the participant. The experimenter explained that there would be a 20-minute delay. This was to ensure that the Suproxin was in the bloodstream. (Anger) The experimenter then asked the P and stooge to use the 20 minutes to complete some questionnaires. (Anger) The experimenter then handed out the questionnaires (to the P and stooge). (Anger) The experimenter then said he will be back in 20 minutes to collect questionnaires/begin vision test. (Euphoria) The experimenter apologised for the disarray in room/taken to a room that was in disarray. (Euphoria) The experimenter told them that they could use anything in the room. The experimenter then left the room.	4	List is definitive. Ignore any reference to the content of the questionnaires or any of the stooge's standardised behaviours.
4(b)	Outline <u>one</u> conclusion from this study. 2 marks detailed conclusion. 1 mark partial/brief. e.g. There are two factors involved when we experience emotions: a physiological/biological one and a psychological/cognitive one (2 marks). The findings supported the two-factor theory of emotion (1 mark). The highest pulse rate change was in the Anger condition with EPI-IGN (0 marks).	2	Do not credit results.

Question	Answer	Marks	Guidance
5(a)	From the study by Baron-Cohen et al. (eyes test): One aim was to investigate whether there would be a correlation between scores on the revised ‘Reading the Mind in the Eyes’ test and the Autism Spectrum Quotient (AQ). Outline <u>one</u> other aim. 2 marks full aim 1 mark partial/brief aim e.g., To test people on a revised Eyes Test to see if some of the original deficits were no longer seen (2 marks). To see if people with AS/HFA lack/have a Theory of Mind (2 marks). To investigate sex differences in performance on the revised Eyes Test (2 marks). To investigate if females will score higher on the revised Eyes Test (2 marks). To improve the Eyes test (1 mark). To test for Theory of Mind (1 mark).	2	Ignore aim based on correlation between eyes test and AQ. Ignore reference to scoring ‘better’ = 0.
5(b)	Outline <u>one</u> result in relation to the Autism Spectrum Quotient (AQ). 2 marks for result with a meaningful comparison. 1 mark for partial result/no meaningful comparison. e.g., The AS/HFA group scored (significantly) higher than Group 3 / Group 4 (2 marks). Males in Group 3 scores higher than females in Group 3 (2 marks). Participants in Groups 3 and Groups 4 scored roughly the same (2 marks). The AS/HFA group scored the highest (1 mark). Females in Group 3 scored the lowest (1 mark). Group 4 scored better on the AQ test (0 marks = value judgement).	2	Ignore reference to scoring ‘better’ = 0. If the response is about an inverse/negative correlation between AQ and Eyes Test then max 1. Group 2 did not complete the AQ.

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Question	Answer	Marks	Guidance
5(c)	Outline <u>one</u> result comparing the participants of Group 1 to the participants of Group 2. You <u>must</u> use data in your answer. 1 mark for result with a meaningful comparison between two groups given in the question. 1 mark for correct data. e.g. The AS/HFA group / Group 1 scored (significantly) lower on the Eyes Test than Group 2 / General population (1 mark) with a mean of 21.9 (2 marks) The AS/HFA scored the lowest (1 mark).	2	The answer can only be about the eyes test result as Group 2 did not complete the AQ or have their IQ measured. Data only needs to be provided for one group. Tolerance: Group 1: 21–22 Group 2: 26–27 Ignore reference to scoring ‘better’ = 0. Use tick-d for data mark.

Question	Answer	Marks	Guidance
6(a)	From the study by Bandura et al. (aggression): Describe the background to this study. e.g., Previous studies had shown that children readily imitate behaviour in the presence of an adult model. Social Learning theory was being investigated, which centres around observing and imitating behaviours. People pay attention to a role model. They retain this information in their memory. They must feel like they are capable of imitating the behaviour. They must feel motivated to want to imitate the behaviour / feel will get rewarded for imitation. This study looked into delayed imitation. This when someone witnesses a behaviour at one time point but only reproduces that behaviour at a different time point.	4	If in doubt, refer to the introduction of the original paper. Do not credit results from Bandura as NAQ. 1 mark is available for a term linked to SLT (annotate with tick-e).
6(b)	Explain why this study is from the learning approach. 2 marks = clearly linked to learning approach (either through example or assumption) 1 mark = partially linked to learning approach e.g. One assumption of the learning approach is that we learn through Social Learning (1 mark). In this study, participants observed and imitated a model's aggressive behaviours (1 mark).	2	Do not credit rewards/reinforcement. Do credit vicarious reinforcement / learning and effect of environment and experiences.

Question	Answer	Marks	Guidance
7	Suggest <u>two</u> real-world applications based on the study by Saavedra and Silverman (button phobia). Your suggestions <u>must</u> be ethical. 1 mark for what the application is (clearly based on Saavedra and Silverman) or an element of the study that is useful to know for an application (due to the nature of the study). 1 mark for how it will be achieved. e.g. The boy revealed that during an art class a bowl of buttons fell on him as he tried to get some (1 mark: what). Therefore, a therapist may need to investigate / discover a situation when the person first came into contact with their phobic stimulus to (potentially) unearth the cause (1 mark: how) After just four sessions of the mother providing positive reinforcement the boy could cope with his worst button fears (1 mark: what). Therefore, for children with phobias, having a parent involved in the therapy might bring about faster positive outcomes (1 mark: how) Therapists could use imagery exposure to help treat for other phobias (1 mark: what). Clients can be asked to imagine their phobia in different scenarios (1 mark: how) Therapists can use a Feelings Thermometer to measure level of fear/disgust (1 mark: what). Clients can be asked to rate different elements of their phobia so then the therapist can begin with the least traumatic (1 mark: how). There are other creditworthy responses.	4	Annotate with a tick for what the application is and a + for how it will be achieved. In this instance the ‘what’ can be a finding. Anything linked to a therapeutic <i>process</i> used in the study <u>is</u> ethical for this question. If any suggestion is about using therapy then a specific one needs to be named (e.g., imagery exposure or behavioural exposure).

Question	Answer	Marks	Guidance
8	Two friends, Xander and Silvia, are discussing the individual and situational explanations for behaviour in relation to the study by Andrade (doodling). Xander thinks the study supports the individual explanation but Silvia thinks the study supports the situational explanation. Explain <u>one</u> reason why Xander is correct and <u>one</u> reason why Silvia is correct using evidence from this study. 1 mark per correct point 3 marks for Xander. 1 mark available for defining the individual explanation. 3 marks for Silvia. 1 mark available for defining the situational explanation. e.g., Xander The individual explanation states that we behave because of our personality (1 mark). Different personalities will doodle in many different ways (1 mark). There were individual differences in the amount of doodling that each participant engaged in. (1 mark) It supports the individual side of the debate as everyone doodled in different ways, may be based on their personality type (1 mark) / wide variety in the amount of doodles (someone doodled 100 items) (1 mark); for example, people who are labelled as extraverts may require doing more than one thing at once to help stimulate themselves and concentrate better (1 mark) e.g., Silvia The situational explanation states that we behaviour because of the environment we find ourselves in / our surroundings / other people around us (1 mark).	6	For Xander, do not credit 'individual' for a definition. For Xander, having a better memory is creditworthy. For Silvia, do not credit 'situation' for a definition. If there is no explicit evidence presented from Andrade then max 2.

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Question	Answer	Marks	Guidance
8	The situation of a boring/monotonous telephone message made the participants doodle (1 mark) and some of these participants may be used to doodling in boring situations (1 mark) Andrade had made sure that everyone was bored so that the situation caused them to doodle / concentrate more when doodling (1 mark); the task itself may have brought about an improvement in concentration as doodling helped them focus more (1 mark) as the doodling group did recall more correct names than the control (1 mark)		

Question	Answer	Marks	Guidance
9(a)	Describe the sample in the study by Yamamoto et al. (chimpanzee helping). 1 mark per correct point Five pairs/five chimpanzees. Each paired with kin/mother. Three were juveniles. Socially housed. Primate Research Institute at Kyoto University. Had participated in previous research (about perceptual/cognitive mechanisms /sharing behaviour). Had demonstrated sharing behaviour before.	4	List is definitive. Accept n=6 Do not accept opportunity sample. Do not accept 'been well trained'.

Question	Answer	Marks	Guidance												
9(b)	Explain whether each ethical guideline below, relating to animals, was broken in the study by Yamamoto et al. (chimpanzee helping). • deprivation and aversive stimuli • housing • pain and distress • reward For each guideline, use the following banded mark scheme: <table><tr><th>Level</th><th>Descriptor</th><th>Marks</th></tr><tr><td>2</td><td>The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.</td><td>2</td></tr><tr><td>1</td><td>The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation. OR the ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study. OR the ethical guideline is incorrectly described but the contextualised example from the named study is correct</td><td>1</td></tr><tr><td>0</td><td>The description of the ethical guideline is incorrect and/or the contextualised example is incorrect. OR no answer given</td><td>0</td></tr></table>	Level	Descriptor	Marks	2	The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.	2	1	The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation. OR the ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study. OR the ethical guideline is incorrectly described but the contextualised example from the named study is correct	1	0	The description of the ethical guideline is incorrect and/or the contextualised example is incorrect. OR no answer given	0	8	Do not credit tautological answers: e.g., housing is about where they house the chimpanzees. Go with the intentions of the candidate. Annotate with L2, L1 or SEEN. Accept not deprived of food/water. Accept familiar with tools. Do not accept anything about the experimental booths. Do accept placed in a cage <u>for trials</u> may be distressing. Do accept being given a reward of juice as an example.
Level	Descriptor	Marks													
2	The answer explicitly describes the ethical guideline, <i>and</i> the example is contextualised from the named study.	2													
1	The answer explicitly describes the ethical guideline <i>without</i> correct contextualisation / no contextualisation. OR the ethical guideline is <i>identified</i> from the use of a brief example contextualised from the named study. OR the ethical guideline is incorrectly described but the contextualised example from the named study is correct	1													
0	The description of the ethical guideline is incorrect and/or the contextualised example is incorrect. OR no answer given	0													

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Question	Answer	Marks	Guidance
9(b)	e.g., deprivation and aversive stimuli Deprivation needs to be avoided / justified based on the needs of the species. The chimpanzees were only deprived of social contact for a limited time during trials / were socially housed outside of trials (not broken) e.g., housing Housing should take into account the social behaviour of species (e.g., caging). The chimpanzees were socially housed at Kyoto University (not broken). e.g., pain and distress Researchers should always attempt to <u>minimise</u> pain and distress that might arise in a study. There were no invasive procedures carried out on the chimpanzees, it as just tool selection (not broken) e.g., reward Behaviours cannot be controlled by the use of rewards only / Rewards should be tailored to the animal and based on preferred food choices / object choice. In this case it could be argued that one chimpanzee did get a reward at the expense of the other (broken).		

Question	Answer	Marks	Guidance						
10	Evaluate the study by Canli et al. (brain scans and emotions) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about generalisations. Suitable strengths include internal validity, reliability, quantitative data. Suitable weaknesses include generalisations, ethics, external validity. <table><tr><th></th><th>Additional guidance</th></tr><tr><td> Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material. </td><td> 10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Canli et al. study and it includes the named evaluation point, in depth. </td></tr><tr><td> Level 3 (6–7 marks) - Evaluation is good. - Answer demonstrates some planning and is well organised. - Analysis is often evident but may not be consistently applied. - Answer demonstrates a good understanding of the material. </td><td> Max 6: if the answer does not include the named evaluation point. Max 6: if The candidate has given one strength and one weakness and they are in the context of the Canli et al. study and indepth. </td></tr></table>		Additional guidance	Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material.	10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Canli et al. study and it includes the named evaluation point, in depth.	Level 3 (6–7 marks) - Evaluation is good. - Answer demonstrates some planning and is well organised. - Analysis is often evident but may not be consistently applied. - Answer demonstrates a good understanding of the material.	Max 6: if the answer does not include the named evaluation point. Max 6: if The candidate has given one strength and one weakness and they are in the context of the Canli et al. study and indepth.	10	Use tick-d for detailed (so the candidate clearly explains why it is a strength or a weakness). Use tick-b for brief (tends to not explain why). Rules (points in context) If all tick-b then Level 2 max If mixture of tick-b and tick-d then likely Level 3 If three tick-d and one tick-b then Level 4 8 marks max All have to be tick-d and in context to gain Level 4 If no points are in context then Level 1 max, unless well explained then Level 2
	Additional guidance								
Level 4 (8–10 marks) - Evaluation is comprehensive. - Answer demonstrates evidence of careful planning, organisation and selection of material. - Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. - Answer demonstrates an excellent understanding of the material.	10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point. Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Canli et al. study and it includes the named evaluation point, in depth.								
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Question	Answer		Marks	Guidance
10	Level 2 (4–5 marks) - Evaluation is mostly appropriate but limited. - Answer demonstrates limited organisation or lacks clarity. - Analysis is limited. - Answer lacks consistent levels of detail and demonstrates a limited understanding of the material.	Max 5: The candidate has given either two strengths or two weaknesses (contextualised). Max 4: if The candidate has given one strength or weakness that is in the context of the Canli et al. study which is in-depth		
	Level 1 (1–3 marks) - Evaluation is basic. - Answer demonstrates little organisation. - There is little or no evidence of analysis. - Answer does not demonstrate understanding of the material.	Max 3: The candidate has given two evaluation points that are generic/brief. Max 2: The candidate has given one evaluation point that is generic/brief.		
	Level 0 (0 marks) No response worthy of credit.	If the answer is a description of the study		