

Cambridge International AS & A Level

PSYCHOLOGY**9990/11**

Paper 1 Approaches, issues and debates

May/June 2025**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.

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This document consists of **22** printed pages.

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 descriptions 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.

PUBLISHED**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).

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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 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

4 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.

Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	A creditworthy point made by the candidate A creditworthy 'what' for a generic everyday application question
	An incorrect response
	Benefit of Doubt
	Repetition of a point
	Unclear response
	The named issue in the 10-mark essay

Annotation	Meaning
L1 L2 L3 L4 L5	Levels used for the 10-mark essay (L1–L5) Levels used for the 8-mark similarity/difference question (L1–L4)
NAQ	Not Answering the Question
SEEN	The blank page has been seen. An attached response has been seen.
+	A creditworthy strength in the 10-mark essay. A creditworthy 'how' for a generic everyday application question
—	A creditworthy weakness in the 10-mark essay.
✓ _b	A creditworthy point in the 10-mark essay that is brief
✓ _d	A creditworthy point in the 10-mark essay that is detailed The mark for data in Q4
✓ _i	A creditworthy identification mark in Q6(b)
✓ _e	A creditworthy example in Q6(a)

Question	Answer	Marks	Guidance
1(a)	From the study by Fagen et al. (elephant learning): State the number of elephants that successfully passed the trunk-wash test. 1 mark for correct number. 4.	1	If more than one response given, take first one only.
1(b)(i)	Identify the primary reinforcer used in this study. 1 mark for correct answer. Banana.	1	If more than one response given, take first one only. Do not accept 'food'.
1(b)(ii)	Identify the secondary reinforcer used in this study. 1 mark for correct answer. Whistle (sound).	1	If more than one response given, take first one only. Do not accept 'sound' by itself.
1(c)	Outline the trained behaviour of 'steady' as used in this study. 1 mark per correct point. e.g., The elephant holds the trunk still. The previously requested (trunk behaviour) was held in the position. The elephant can move her head/ears/feet.	2	List is definitive. Do not accept 'holds the trunk steady'. 'Had to hold still' = 0 marks

Question	Answer	Marks	Guidance
2(a)	In the study by Perry et al. (personal space), in Experiment 1 each participant took a computerised test of comfortable interpersonal distance. Outline the <u>two</u> possible ways that this computerised test could end for a participant. 1 mark per correct way. When the two figures collided/after 3 seconds/reached the centre/reached maximum distance (Before collision) the participant pressed the spacebar.	2	List is definitive. 'When the participant stops the figure' = 0 marks. Accept 'hit the button' to mean spacebar.
2(b)	Explain <u>one</u> weakness of this study in relation to ethics. 1 mark for explaining the weakness (generic or by guideline). 1 mark for example from the study. e.g., The study could have broken the ethical guideline of minimising harm/stress/distress (1 mark: guideline). This is because the participant may have become stressed as the figure approached them (if they needed a large personal space)/they thought they were going to discuss personal topics (1 mark: example). The study could have broken the ethical guideline of deception (1 mark: guideline). This is because the participants <u>might have felt stressed</u> thinking that they had to speak with someone at a later date (as they were deceived into thinking this) (1 mark: example).	2	Do accept deception for the 1 mark for guideline, but to get the example <u>the candidate must link it to feeling stressed as the deception was justifiable, and participants were debriefed.</u> 'Deceived' as they did not know if they were taking oxytocin or placebo = 0 marks (and in this instance no ID mark can be awarded). Not debriefed = 0 marks No informed consent = 0 marks

Question	Answer	Marks	Guidance
3(a)	From the study by Saavedra and Silverman (button phobia): One aim was to investigate the role of disgust in a childhood phobia. Outline <u>one</u> other aim of this study. 2 marks for full/detailed aim. 1 mark for brief/partial aim. e.g., To investigate the role of classical conditioning/evaluative learning in the (button) phobia of a boy (2 marks). To investigate whether behavioural/imagery exposure to buttons would help to treat his phobia (2 marks). To investigate if positive reinforcement helped treat a boy with a phobia (of buttons) (2 marks). To investigate what caused the phobia of buttons in a boy (1 mark). To help treat his phobia of buttons (1 mark). To investigate the origin of the phobia (1 mark). To investigate the role of disgust in phobias (0 marks = already given in the question).	2	Do not credit any aim about the role of disgust in phobias. Do accept cognitive-behavioural therapy. The role of operant conditioning = 1 mark max. If disgust is mentioned as an aim about treatment = 1 mark max.
3(b)	The sample in the study was a boy with a phobia of buttons. Identify <u>two</u> other features of the sample. 1 mark per correct feature. 9-year-old. Hispanic/American. Presented by his mum to a Child Anxiety and Phobic Program. Did not meet the criteria for OCD. Did meet the criteria (DSM–IV) for a phobia. He had experienced a bowl of buttons falling on him (at school).	2	List is definitive. Do not accept boy or phobia of buttons. Do credit 'got his phobia at 5 years of age/4 years prior to study.'

Question	Answer	Marks	Guidance
3(c)	Suggest <u>one</u> application to everyday life using evidence from this study. Your suggestion must 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 this study). 1 mark for how it will be achieved (explicit). 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 can use imagery exposure therapy with people who are diagnosed with a phobia (1 mark: what). There are other creditworthy suggestions.	2	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. Only accept that imagery expose therapy should be used (as behavioural increased <u>his</u> severity ratings).

Question	Answer	Marks	Guidance
4	From the study by Dement and Kleitman (sleep and dreams). Outline <u>one</u> result about dream recall and stages of sleep. You <u>must</u> use data in your answer. 2 marks for the result with a meaningful comparison 1 mark for result with no meaningful comparison 1 mark for correct data e.g., 3 marks There was more dream recall during REM sleep (152 in total) compared to NREM sleep. KK had more dream recall in REM than NREM where they recalled zero dreams. e.g., 2 marks There was more dream recall during REM sleep compared to NREM sleep. KK had more dream recall in REM than NREM. e.g., 1 mark There was more dream recall during REM sleep. KK had more dream recall in REM. e.g., 0 marks 80% of <u>participants</u> recalled a dream in REM. Dream recall only happens in REM and <u>not</u> NREM. <u>Most</u> participants could recall dreams during REM.	3	Do not credit answers about no dream recall. Use tick–d for the data mark. Credit can be given for results from any of the 9 individuals. More vivid dreams in REM compared to NREM = max 1. If data presented is incorrect but it shows the correct direction of results then can be awarded up to 2 marks. Dreams reported: REM – 79.6% of awakenings NREM – 6.8% of awakenings (tolerance of 1%) Overall dream recall: 93% of dreams reported in REM 7% of dreams reported in NREM (tolerance of 1%) No tolerance for total number of dreams recalled in REM/NREM. Do credit if the response reads like a conclusion (e.g., Dreams are recalled more often in REM).

Question	Answer	Marks	Guidance
5(a)	Outline <u>one</u> assumption of the biological approach. 2 marks: full/detailed assumption 1 mark: partial/brief assumption e.g., 2 marks Human behaviour/cognitions can be explained in terms of brain function and the effect of hormones/genes (any two of the three terms required: brain–hormone–gene). The similarities and differences seen in human behaviour can be understood in terms of internal (biological) factors and how they interact (with internal/external factors). e.g., 1 mark Behaviour can be explained via brain function. Behaviour can be explained because of genes. Behaviour can be explained via hormones. The similarities and differences seen in human behaviour can be understood in terms of internal (biological) factors.	2	Do accept neurotransmitters, evolution. 2 marks can be awarded if the similarities and differences assumption names a biological concept instead of stating 'biological factors'.
5(b)	Explain how the study by Hölzel et al. (mindfulness and brain scans) supports the assumption you outlined in part (a). 1 mark for result/conclusion/biological example. 1 mark for linking it to an assumption explicitly. e.g., Those who practised mindfulness showed an increase in grey matter (1 mark: result) so this shows that there was an interaction between mindfulness (external factor) and brain density (internal factor) (1 mark: assumption link); scores on the FFMQ change showing that brain structure can affect behaviour (1 mark: alternative assumption link). There are other creditworthy explanations.	2	If the link is not with an assumption from 5a, it can only be awarded the result/conclusion mark. 1 mark maximum if linked to the aim of the study, rather than a finding including they measured GMC.

Question	Answer	Marks	Guidance
6(a)	Describe the psychology being investigated in the study by Pozzulo et al. (line-ups). 1 mark for each correct statement. Examples from the study Pozzulo can gain credit (max 1). e.g., Some eyewitnesses can produce false positive responses which is when a person in a line-up is chosen by an eyewitness that is not accurate, but the eyewitness believes it is (2 marks: detailed). Eyewitness testimony is when a person attempts to recall what they have seen in relation to a crime. The information can be anything from what the person looked like/what they were wearing. The information obtained from an eyewitness may be used in a court of law. Social demands are when people/children feel pressured to make a choice. Children were asked to choose a cartoon face from a line-up (1 mark: example) There are other creditworthy responses, including the use of line-ups to help recall.	3	 use this when you award the 'example mark'. Anything that is about what Pozzulo did (e.g., aim, finding, conclusion) is the example mark. 1 mark maximum for computer analogy or input–process–output. Do not credit any response in relation to children being good at identifying cartoon characters for the example mark. Do credit a generic description of a line-up for 1 mark.

Question	Answer	Marks	Guidance
6(b)	Two friends, Eric and Quinn are discussing the validity of the study by Pozzulo et al. (line-ups). Eric says the study has validity, but Quinn says it does <u>not</u> have validity. Outline why you think <u>either</u> Eric <u>or</u> Quinn is correct, using evidence from this study. 1 mark per point made, with: 1 identification mark for a relevant type of validity. Up to 3 marks for examples in relation to why/why not valid. e.g., Eric It can be argued that the study had ecological validity (1 mark: identification) as children are used to watching cartoons and identifying characters, (1 mark). The study did have some controls like the cartoon foils were rated by three judges to ensure they were similar to the cartoon target faces (1 mark). This means that this variable was less likely to affect the DV of identification/rejection (1 mark). This also meant that it was more likely that the social pressures of target-absent line-ups affected identification/rejection rates (1 mark). e.g., Quinn The act of having to look at a line-up and choose/reject cartoon faces is not an everyday activity, even for children (1 mark). This means that the study lacks ecological validity/mundane realism (1 mark: identification) and has limited relevance to eyewitness line-up identification (1 mark). Also, there were no participant variables controlled for, like exposure to the cartoon foils/personality of the child being tested (1 mark) so it could be that a child 'went along' with the situation not because of social factors/pressures but because they are a more obedient child (1 mark) There are other creditworthy responses.	4	If both Eric and Quinn feature in the answer, mark them independently and credit the highest score. If the candidate mixes up Eric and Quinn (e.g., says Quinn but gives a 'it is valid' based answer) then max 2 and annotate with?  = identification mark Standardisation, reliability, replicability = 0 marks Identification mark from: Ecological validity/external Mundane realism Internal validity/IV affects DV/causal relationship Population validity Control extraneous variables

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Question	Answer	Marks	Guidance
7	In the study by Hassett et al. (monkey toy preferences), each trial used a ‘plush’ toy and a ‘wheeled’ toy. Describe the procedure for <u>one</u> trial. 1 mark per point made. 1 mark available for identification of one of the toys. Initially, the monkeys were kept indoors. One plush toy and one wheeled toy were already in the outdoor area. They were separated by 10 metres. Left or right placement was counterbalanced per trial. Monkeys were allowed/released into the outdoor area/let out/let into outdoor area. Any interaction was videotaped/the monkeys’ behaviours were recorded. Using separate cameras for each toy (in the area)/used 2 cameras/observed through cameras. Each trial lasted 25 minutes. One mark for <u>any</u> of these (only award once): Plush = Winnie-the-Pooh/Raggedy-Ann/koala/armadillo/bear/Scooby-Doo/turtle. Wheeled = wagon/truck/car/construction vehicle/shopping cart/dump truck.	5	List is definitive. Do not credit anything that was recorded (e.g., duration or frequency of play) as these were post-trial. Do not credit that the observers recorded behaviours as this is incorrect (everything was videotaped). All of this happened post-trial.

Question	Answer	Marks	Guidance
8	Your friend, Imelda, tells you about a problem with her child's behaviour. Her child keeps taking all of his toys from where they are stored in a box and throwing them aggressively around the room. When she asks him to tidy the toys his only response is to shout. Imelda wants your advice on how to improve her child's behaviour. Outline the advice you would give to Imelda, using your knowledge of the study by Bandura et al. (aggression). Your advice <u>must</u> be ethical. 1 mark per piece of evidence clearly based on the study by Bandura et al. e.g. Imelda could use a model that shows calm/peaceful/positive behaviour (generic mark). The child could be asked to watch the model as they tidy up the toys/play with the toys. Imelda could reward the <u>model</u> for their good behaviour. Imelda could make sure that she does not display negative behaviour in front of her child. Imelda could make sure the child does not get annoyed/frustrated before opening the toy box. Imelda could make sure that any model is male/her husband/an uncle (as her child is male). Imelda could try to make sure her child is not exposed to aggressive behaviours (at home). Imelda could try to find out who the child might be imitating and stop them from observing. Imelda could stop her child from watching aggressive TV shows/cartoons. Imelda could encourage her child to watch TV shows/cartoons with friendly behaviour/less aggression in them. There are other creditworthy pieces of advice.	4	No credit for justifying advice as this is not what the question is about. Do <u>not</u> credit positive reinforcement directly to the children as this is operant conditioning. Any part of the study (e.g., frustration) can gain credit. Go with intentions of the candidate. Do not credit trying to explain why he might be aggressive. The question is about advising Imelda on <u>improving</u> behaviour. The generic examples of non-aggressive behaviours (e.g., calm/peaceful) can <u>only</u> be credited once.

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Question	Answer	Marks	Guidance
9(a)	In the study by Andrade (doodling), the sample size was 40 participants. Describe the sample of participants used in this study, other than the sample size of 40. 1 mark for correct point. Recruited via opportunity sampling. They had just finished a different study (before being asked to participate in this one). Members of a university participant panel/Applied Psychology Unit. General population. Aged 18–55 years. Paid for participation. Majority female/35 females/5 males. Doodling group = Female 17/Male 3 or Control group = Female 18/Male 2.	4	List is definitive. Do not accept members of the Medical Research Council or that they were students. Do accept psychology panel, research panel, research unit etc.

Question	Answer	Marks	Guidance
9(b)	Explain <u>two</u> differences between the study by Andrade (doodling) and <u>one</u> other study from the cognitive approach. Do <u>not</u> refer to the sample of participants. Use the marking grid below. 4 marks for each difference, e.g., qualitative data collection, experimental design used, cognitive skills be assessed, individual-situation arguments, sampling <u>techniques</u>, use of a control group, levels of mundane realism. Each difference must be based on psychological principles. e.g., 4 marks The studies by Andrade and Pozzulo used different experimental designs within them. Andrade was only independent groups with participants being placed in the doodling or control group. Part of the Pozzulo study was repeated measures as all participants saw target absent and target present line-ups. Therefore, in Andrade Ps only participated in one level of the IV whilst in Pozzulo Ps participated in multiple levels of the IV (explanation). e.g., 3 marks The studies by Andrade and Pozzulo used different experimental designs within them. Andrade was only independent groups with participants being placed in the doodling or control group. Part of the Pozzulo study was repeated measures. e.g., 2 marks Andrade used only independent measures whilst Pozzulo used repeated measures for part of the study. e.g., 1 mark Andrade and Pozzulo used different experimental designs.	8	The other cognitive approach studies are Baron–Cohen and Pozzulo. Do not credit any answer about the sample but do credit sampling technique. Award L1–L4 for each difference For Level 4 there must be some attempt at <i>explaining</i> the difference. All of the following are L1 max: Different aims/psychology Andrade using deception or is unethical. Audio vs. visual The procedures were different All of the following are L0: Standardisation comparisons Different conclusions Different number of groups If response is about Baron–Cohen being Matched Pairs = L2 max.

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Question	Answer		Marks	Guidance
9(b)	Mark/ Level	Description		
	4	The difference is well explained using both studies as examples.		
	3	The difference is well explained but only one study is used as an example OR both studies are used briefly.		
	2	The difference is brief with an attempt at using at least one study as an example OR The difference is well explained but there is no study evidence.		
	1	The difference is brief with no attempt at using the studies as examples.		
	0	No creditable response.		

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 must be about the sampling technique used to recruit participants. Strengths include reliability/replicability (standardisation), quantitative data, validity. Weaknesses include sample, ethics, generalisability, quantitative data, sampling technique. Example: in detail Reading out word pairs is not an everyday task so lacks mundane realism. Ps had to judge accuracy and give what they thought was an electric shock. However, this is not what happens in reality. We do not think we are giving people an electric shock as punishment to a stranger in the real world. Example: brief but in context In the study all were males from one geographical area of the United States. This could make it difficult to generalise to a wider population of other males/females. Example: no context There was a standardised procedure meaning it could be replicated/tested for reliability. <table><tr><th>Level</th><th>Description</th><th>Marks</th></tr><tr><td>5</td><td> • Very good evaluation including the named issue. • Thoroughly addresses both strengths and both weaknesses in detail. • Selection of evidence is very thorough and effective. </td><td>9–10</td></tr></table>	Level	Description	Marks	5	• Very good evaluation including the named issue. • Thoroughly addresses both strengths and both weaknesses in detail. • Selection of evidence is very thorough and effective.	9–10	10	
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Question	Answer			Marks	Guidance
10	Level	Description	Marks		
	4	• Good evaluation including the named issue. • Addresses strengths and weaknesses but may include three or four points. The majority of the points are in depth. • Selection of evidence is thorough and effective.	7–8		
	3	• Mostly appropriate evaluation but may not include the named issue. • Addresses either two strengths or two weaknesses in detail or one of each in detail or all four briefly. • Selection of evidence is mostly effective.	5–6		
	2	• Weak evaluation and may not include the named issue. • Addresses either a strength or a weakness. Evaluation points are brief. • Some points may have no context. • Selection of evidence is sometimes appropriate.	3–4		
	1	• Little or no evaluation. • Discussion of strengths and weaknesses is absent or superficial. • Selection of evidence is limited.	1–2		
	0	No creditable response.	0		

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- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
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- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
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- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
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4 Annotation:

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The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	A creditworthy point made by the candidate A creditworthy 'what' for a generic everyday application question
	An incorrect response
	Benefit of Doubt
	Repetition of a point
	Unclear response
	The named issue in the 10-mark essay
    	Levels used for the 10-mark essay (L1-L5) Levels used for the 8-mark similarity/difference question (L1-L4)

Annotation	Meaning
	Not Answering the Question
	The blank page has been seen. An attached response has been seen.
	A creditworthy strength in the 10-mark essay. A creditworthy 'how' for a generic everyday application question
	A creditworthy weakness in the 10-mark essay.
	A creditworthy point in the 10-mark essay that is brief
	A creditworthy point in the 10-mark essay that is detailed The mark for data in Q4
	A creditworthy identification mark
	A creditworthy example

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Question	Answer	Marks	Guidance
1(a)	In the study by Perry et al. (personal space), Experiment 2 used four coloured pictures of a room. In these pictures there were several objects including a lamp and a clock. Name <u>one</u> other object that was always in the pictures. 1 mark for correct object. Chair/table/plant/closet.	1	If more than one response given, take first one only. Accept 'cupboard'. Accept 'chairs'.
1(b)	Outline how the participants were deceived in Experiment 2 of this study. 1 mark per correct point. At the end of the experiment, they would discuss personal topics with another participant. This would happen in an 'average' room that has been calculated by a computer. However, this was not true (for both of the above)/actually about preferred distance.	2	List is definitive. Not knowing if given OT or PL = 0 marks.

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Question	Answer	Marks	Guidance
1(c)	Outline <u>one</u> result from Experiment 2 of this study in relation to the hormone oxytocin. 2 marks for the result with a meaningful comparison 1 mark for result with no meaningful comparison Participants in the high empathy group who had oxytocin chose closer distances compared to placebo/low empathy group (2 marks). Oxytocin did not affect the average angle between objects across empathy status/treatment/condition (2 marks). Participants in the high empathy group who had oxytocin chose closer distances (1 mark). Participants with oxytocin chose closer distance (0 marks: incorrect).	2	Do accept the opposite trend for low empathy Ps even though it did not reach significance. Must mention empathy grouping to gain credit. No significant result for tables = 1 mark max.

Question	Answer	Marks	Guidance
2(a)	From the study by Pozzulo et al. (line-ups). Identify <u>two</u> features of the female used as a ‘human face target’. 1 mark per correct point. Caucasian. Student. 22 years old. (she was) brushing her hair (in bathroom).	2	List is definitive. Accept ‘white’. Accept ‘combing hair’.

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Question	Answer	Marks	Guidance
2(b)	Explain <u>one</u> strength of this study in relation to reliability. 1 mark for standardisation <u>and</u> replication (identification of the strength) 1 mark for example from the study e.g. The procedure was standardised so could be replicated (1 mark). For example, every participant saw all four videos in a random order (1 mark link). There are other creditworthy responses.	2	Ignore reference to controls <u>only</u> .

Question	Answer	Marks	Guidance
3(a)	From the study by Milgram (obedience): Identify <u>two</u> features of the sample used in this study. 1 mark per correct feature. Volunteers/from newspaper advert/direct mail. n=40. All males. Age 20–50 New Haven area. Wide range of occupations. Wide range of educational levels.	2	List is definitive. Do not accept ‘adults’.

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Question	Answer	Marks	Guidance
3(b)	Outline <u>one</u> conclusion from this study. 2 marks full/detailed conclusion 1 mark partial/brief conclusion Individuals appear to be much more obedient to an authority figure than we might expect (2 marks). People will follow/listen to an authority figure even if it means harming another person (2 marks). People are willing to harm someone if responsibility is taken away/passed on to someone else (2 marks). People find it stressful to follow destructive orders from a person in authority (2 marks). People will be obedient to an authority figure (1 mark). People find it stressful to follow destructive orders (1 mark). 100% of participants pressed the 300 V switch (0 marks: result). There are other creditworthy responses.	2	Ignore responses that are simply results. ‘Comply’ = max 1 mark. ‘Conform’ = 0 marks. Did not support Germans are different hypothesis = max 1 mark.

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Question	Answer	Marks	Guidance
3(c)	Suggest <u>one</u> application to everyday life using evidence from this study. Your suggestion <u>must</u> be ethical. 1 mark for what the application is (clearly based on Milgram) 1 mark for how it will be achieved. e.g., A teacher could get students to be more obedient in the classroom (1 mark: what) by wearing clothes that show authority like a technician's coat (1 mark: how). Soldiers could be encouraged to be more obedient (1 mark: what) as an authority figure can give out commands in a firm tone/stern voice (1 mark: how). There are other creditworthy suggestions, including whistleblowing policies in the workplace.	2	Annotate with a tick for what the application is and a + for how it will be achieved. Military examples e.g., soldiers being made more obedient to protect a country may be ethical (the question is about the process). Link to explaining named/specific historical events is creditworthy. 'Help us to understand obedience' = 0 marks. Examples must be specific for dress code and prods to be awarded credit.

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Question	Answer	Marks	Guidance
4	From the study by Hassett et al. (monkey toy preferences): Describe <u>one</u> result for toy preferences of the male monkeys. You <u>must</u> use data in your answer. 2 marks for the result with a meaningful comparison 1 mark for result with no meaningful comparison 1 mark for correct data e.g., 3 marks Males played with the wheeled toys (average 10 times) more often than the plush toys. Males played with plush toys for less time than wheeled toys (4.76 minutes on average). 73% of males preferred wheeled toys over plush toys. e.g., 2 marks Males played with the wheeled toys more often than the plush toys. Males played with plush toys for less time than wheeled toys. Males preferred wheeled toys over plush toys. e.g., 1 mark Males played with the wheeled toys more often. Males played with plush toys for less time. Males preferred wheeled toys. e.g., 0 marks Females played with wheeled toys for less time than males. Females played with plush toys more often than males.	3	Result can be about frequency or duration. Use tick-d for the data mark. Male vs. female preference = 0 marks, but if correct direction for males given and “compared to females” written at the end, then can still be credited. Data tolerance is 0.5 or 1% Accept masculine and feminine toys.

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Question	Answer	Marks	Guidance
5(a)	Outline <u>one</u> assumption of the learning approach. 2 marks: full/detailed assumption. 1 mark: partial/brief assumption. e.g., 2 marks We all begin life as a blank slate. The experiences and interactions we have then shape our behaviour(s). We learn through the mechanisms of classical conditioning/operant conditioning/social learning/stimulus-response model (any 2 mechanisms = 2 marks) e.g., 1 mark We all begin life as a blank slate. We learn through the mechanisms of classical conditioning/operant conditioning/social learning (1 mechanism named = 1 mark).	2	Do not credit learn from environment, surroundings or conditioning by itself. Max 1 if the assumption is about naming/outlining one mechanism (e.g., we learn from models).
5(b)	Explain how the study by Saavedra and Silverman (button phobia), supports the assumption you outlined in part (a). 1 mark for result/conclusion/concept. 1 mark for linking it to an assumption explicitly. e.g., Part of this therapy was based on positive reinforcement (1 mark). He was rewarded for being able to handle buttons on the Feeling Thermometer (1 mark). He had an experience of the bowl of buttons falling on to him (1 mark). He never had this phobia before/not born with it, so it developed after this incident (1 mark). There are other creditworthy responses.	2	If the link is not with an assumption from 5(a), it can only be awarded the result/conclusion mark. For a link back to an assumption about a mechanism, a named component must be covered, e.g., positive reinforcement. 1 mark maximum if linked to the aim/procedure of the study, rather than a finding. Accept 'he was not born with the phobia'.

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Question	Answer	Marks	Guidance
6(a)	Outline what is meant by the term ‘positive reinforcement’. Include an example from the study by Fagen et al. (elephant learning) in your answer. 1 mark per correct point. 1 mark for an example from the study by Fagen. e.g., Positive reinforcement is when a reward is given after the completion of a desired behaviour. This increases the probability that the desired behaviour will be repeated. In the study by Fagen, the elephants were rewarded with banana when a specific behaviour was shown (1 mark: example). There are other creditworthy responses	3	Only credit examples from the study by Fagen. Do credit ‘encourage/strengthen/enhances behaviour’ as meaning increasing probability. Do not credit ‘rewarded with food’. Do not credit ‘rewarded with banana’ by itself.

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Question	Answer	Marks	Guidance
6(b)	Two friends, Roksana and Tien are discussing the study by Fagen et al. (elephant learning) in terms of the individual and situational explanations for behaviour. Roksana says the study supports the individual explanation, but Tien says it supports the situational explanation. Outline why you think <u>either</u> Roksana <u>or</u> Tien is correct, using evidence from the study. 1 mark per point made, with 1 mark available for definition of individual/situational explanation. Up to 4 marks for examples/explanations that support individual/situational. e.g., Roksana The individual side refers to behaviours from factors within the person (dispositional) (1 mark: definition). There were individual differences in the amount of time it took the elephants to be trained on the trunk wash (1 mark: example). Elephant 2 only needed 25 sessions/Elephant 1 needed 30 etc. (1 mark: example). Elephant 5 did not successfully complete the training (1 mark: example). This could have been because she was older than the rest of the elephants/had vision problems/abscess on foot/trunk weakness (1 mark: explanation).	4	If both Roksana and Tien feature in the answer, mark them independently and credit the highest score. If the candidate mixes up Roksana and Tien (e.g. says Tien but gives an individual explanation answer) then max 2 and annotate with a ? Do not credit definitions that are tautological, for example, the situational explanation is based on the situation. Do not credit why it is not individual or situational. Do not credit individual differences as a definition mark. Do credit statements like ‘elephant 2 as the fastest’ etc. For Roksana: If the elephants are not correctly ‘numbered’ then generic statements like ‘one elephant was faster’ or ‘one failed to complete the trunk wash’ can only be credited <u>once</u>.

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Question	Answer	Marks	Guidance
6(b)	e.g., Tien The situational side refers to behaviour from factors in the external environment (1 mark). The reason the elephants could complete the trunk wash was because of the training/operant conditioning (1 mark: explanation). Their behaviour was shaped by the researchers who rewarded a series of different behaviours like trunk here (1 mark: example). The elephants received banana pieces every time they performed a certain behaviour correctly, so this encouraged them to repeat the behaviours (1 mark: example/explanation). There were distractions like tourists which slowed training (1 mark: example). There are other creditworthy examples/explanations.		

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Question	Answer	Marks	Guidance
7	From the study by Bandura et al. (aggression): Describe the procedure for the ‘Aggression Arousal’ part of this study. 1 mark per correct point The child was brought to an anteroom/a room. It contained toys (for the children)/shown toys. These included a fire engine, locomotive, a fighter jet, cable, spinning top, doll, doll carriage, crib, car, wardrobe (two need to be named to gain 1 mark). They were told they could play with them. As soon as they did begin to play/get involved (usually 2 mins), the experimenter stopped them/took the toys away. The experimenter explained that she did not let just anyone play with the toys. She then said that she decided they were reserved for some other children. The children were told that they were her very best toys. The experimenter sat away from the child (during this phase)/completed some paperwork.	5	List is definitive. If the description follows the definitive list presented here but they say ‘model’ then award credit. Do not credit ‘they were not allowed to play with the toys’ as they were.

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Question	Answer	Marks	Guidance
8	Your friend, Rosalia, tells you that she has recently begun to feel stressed, even though nothing in her life has changed. Rosalia wants your advice on how to help reduce her level of stress. Outline the advice you would give to Rosalia, using your knowledge of the study by Hölzel et al. (mindfulness and brain scans). 1 mark per piece of advice clearly based on the study by Hölzel et al. Rosalia should engage in mindful yoga with some stretching exercises. These are slow movements in conjunction with breathing. She can be taught to become “fully aware” of her body sensations. And use the deep breathing exercise to help control feelings of stress. She can also use meditation to become aware of different sounds/feelings/emotions. She can be encouraged to practise this for 45-minutes per day/daily. She can join an (8 week) MBSR course. She can practice mindfulness when eating/walking/at home. There are other creditworthy pieces of advice.	4	No credit for justifying advice as this is not what the question is about. Do not credit ‘mindfulness’ by itself. 1 mark max can be awarded for identification of a relevant task, e.g., yoga, meditation, body scan etc. Only credit any timeframe once, e.g., 8-weeks, 45 mins, long-term, daily etc. e.g., she should attend an 8-week MBSR course = 2 marks total (1 for MBSR and 1 from the timeframe). Credit descriptions of what would happen in body scanning, yoga, meditation etc. Doing it in her ‘daily life’ as a statement by itself = 0 marks.

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Question	Answer	Marks	Guidance
9(a)	From the study by Piliavin et al. (subway Samaritans): Describe the <u>two</u> victims used in this study. 1 mark for identifying a victim plus 1 mark for a correct feature of that victim ×2. e.g., The first victim was drunk (1 mark). They smelled of liquor/alcohol (1 mark). The liquor/alcohol bottle was wrapped in brown paper bag (1 mark: alternative). The second victim was ill (1 mark). They had a (black) cane (1 mark). They acted sober (1 mark: alternative).	4	List is definitive. 1 mark max for: What they were wearing Male Aged 26–35 White/black n=4 Only award above if not been awarded 4 marks with drunk/ill statements. Accept 'sick' to mean 'ill'. Do not accept 'cane' as the identifying mark for the 'ill' victim.

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Question	Answer	Marks	Guidance
9(b)	Explain <u>two</u> differences between the study by Piliavin et al. (subway Samaritans) and the study by Perry et al. (personal space). One of your differences <u>must</u> be about the sample of participants. Use the marking grid below. 4 marks for each difference (twice), e.g., sample, stooges, ethics, data collection techniques, generalisability, (ecological) validity. Each difference must be based on psychological principles. e.g., 4 marks The studies used stooges in <u>different ways</u> (explanation). Piliavin used a human stooge that the participant did not know as acting ill/drunk/was a model. In the Perry study the participants 'met' the animated stooge in various rooms/scenarios until they felt the stooge was invading personal space. Example: 3 marks The studies used stooges. Piliavin used a human stooge that the participant did not know as acting ill/drunk/was a model and in the Perry study the participants 'met' the animated stooge in various rooms/scenarios until they felt the stooge was invading personal space. Example: 2 marks The studies used stooges. Piliavin used a human stooge that the acted ill or drunk/Perry used an animated stooge. Example: 1 mark The stooges were different/one was human/one was animated.	8	Award L1–L4 for each difference For Level 4 there must be some attempt at <i>explaining</i> the difference. If both differences do not focus on the sample, then <u>mark both but only credit the best, and place an X next to the Q.</u> Place a tick next to the difference that is about the <u>sample</u>. Note: sampling technique does not count as the sample. At least one feature of each sample must be correct to get above L2. If the sample information about one of the studies is incorrect (e.g., give it from a different study to Piliavin or Perry) = L0. Different aims = L1 Sample information from only Piliavin or Perry = L1 max. Description of two samples only = L2 To get L4, the candidate needs to explicitly state what the difference is.

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Question	Answer		Marks	Guidance
9(b)	Mark/Level	Description		
	4	The similarity/difference is well explained using both studies as examples.		
	3	The similarity/difference is well explained but only one study is used as an example OR both studies are used briefly.		
	2	The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.		
	1	The similarity/difference is brief with no attempt at using the studies as examples.		
	0	No creditable response.		

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Question	Answer	Marks	Guidance
10	Evaluate the study by Baron-Cohen et al. (eyes test) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about quantitative data. Strengths include: reliability (standardisation), quantitative data, validity. Weaknesses include: ecological validity, ethics, generalisability, quantitative data. Example: in detail (named issue) The study collected quantitative data which makes it easier to make meaningful comparisons between groups/conditions (as you compare like with like). They counted the number of correct emotions identified from looking at the eyes. As a result, they could compare performance across the four groups of participants to see any trends/differences between the AS/HFA groups and the other three groups. Example: brief but in context The sample for the AS/HFA group was 15 males which may make generalisation difficult and may not represent females with AS/HFA. Example: no context There was a standardised procedure meaning it could be replicated/tested for reliability.	10	

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Question	Answer			Marks	Guidance
10	Level	Description	Marks		
	5	• Very good evaluation including the named issue. • Thoroughly addresses both strengths and both weaknesses in detail. • Selection of evidence is very thorough and effective.	9–10		
	4	• Good evaluation including the named issue. • Addresses strengths and weaknesses but may include three or four points. The majority of the points are in depth. • Selection of evidence is thorough and effective.	7–8		
	3	• Mostly appropriate evaluation but may not include the named issue. • Addresses either two strengths or two weaknesses in detail or one of each in detail or all four briefly. • Selection of evidence is mostly effective.	5–6		

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Question	Answer			Marks	Guidance
10	Level	Description	Marks		
	2	- Weak evaluation and may not include the named issue. - Addresses either a strength or a weakness. Evaluation points are brief. - Some points may have no context. - Selection of evidence is sometimes appropriate.	3–4		
	1	- Little or no evaluation. - Discussion of strengths and weaknesses is absent or superficial. - Selection of evidence is limited.	1–2		
	0	No creditable response.	0		

Cambridge International AS & A Level

PSYCHOLOGY**9990/13**

Paper 1 Approaches, issues and debates

May/June 2025**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 May/June 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **23** printed pages.

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 descriptions 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.

PUBLISHED**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)

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- 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).

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	A creditworthy point in the 10-mark essay that is detailed The mark for data in Q4
	A creditworthy identification mark
	A creditworthy example

PUBLISHED

Question	Answer	Marks	Guidance
1(a)	From the study by Fagen et al. (elephant learning): State the number of elephants used in this study. 1 mark for correct number. 5.	1	If more than one response given, take first one only. Accept '4 juvenile + 1 adult'
1(b)	Identify <u>two</u> criteria used to select the elephants in this study. 1 mark per correct criterion. (level of) docility. Lack of pregnancy/does not currently have calf. Willingness of mahout to participate. Trained using traditional methods. No previous experience with secondary positive reinforcement.	2	List is definitive. Accept 'pregnancy' by itself. Do not accept healthy, Nepalese, or 'not trained'.
1(c)	Elephants were trained to do a number of behavioural tasks including 'trunk here'. Outline the 'trunk here' task. 1 mark per correct point. (Distal) end of trunk placed (gently) on palm of trainer. The underside (ventral) part of the trunk must also be touching the palm of trainer.	2	List is definitive.

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Question	Answer	Marks	Guidance
2(a)	In the study by Dement and Kleitman (sleep and dreams), an EEG (electroencephalogram) was used. Outline where on each participant's body the EEG electrodes were attached. 1 mark per correct point. Electrodes were placed next to the eyes. Electrodes were placed on the scalp/head. All electrode lead wires were further attached to top of the head.	2	List is definitive. Do not credit 'on the eyes', 'in the brain', 'under eyes', 'in a ponytail.' Accept 'skull'.
2(b)	Explain <u>one</u> weakness of this study in relation to validity. 1 mark for identifying the weakness in relation to validity/identifying a type of validity. 1 mark for example from the study. e.g., Ecological validity is how well the setting for a study reflects a real-life setting (1 mark: explain) so in the study by Dement and Kleitman the setting was an artificial sleep laboratory/not at home that might have changed sleep/dream patterns (1 mark: example). There are other creditworthy responses, including do not know if they are telling the truth about dream content, could be difficult to fall asleep in the laboratory, the stress of being in a laboratory might affect dream content.	2	Credit population validity but not generalisability. The identification mark can be awarded by term or outline of the problem with validity (e.g., it wasn't real).

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Question	Answer	Marks	Guidance
3(a)	From the study by Bandura et al. (aggression): One aim was to investigate whether children would reproduce the aggression shown by a model when that model is no longer there. Outline <u>one</u> other aim of this study. 2 marks full/detailed aim 1 mark partial/brief aim. e.g., 2 marks To investigate whether children imitate the aggressive behaviour of an aggressive model To investigate whether children are more likely to imitate the behaviour of a same-sex model To investigate whether males imitate more aggression than females. e.g., 1 mark To investigate how children learn aggression. To see if aggression was nature or nurture. There are other creditworthy responses, including sex of model.	2	Do not credit responses about imitation in absence of model as this is in the question. ‘Imitate’ needed for the sex differences aim to be awarded 2. Terms like reproduce, copy, repeat are synonyms for imitate.
3(b)	Identify <u>two</u> features of the sample in this study. 1 mark per correct point. n=72 Aged 37–69 months/mean age of 52 months. Split evenly across sex/36 male and 36 female. Enrolled at Stanford University Nursery School.	2	List is definitive. Accept age as 3–6 years. Male + female = 0 marks. From Stanford Uni = 0 marks.

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3(c)	Suggest <u>one</u> application to everyday life using evidence from this study. Your suggestion <u>must</u> be ethical. 1 mark for what the application is (clearly based on Bandura). 1 mark for how it will be achieved. e.g. Children can be taught prosocial behaviour (1 mark: what). A child can observe a model engaging in prosocial behaviour/speech and they are likely to imitate this (1 mark: how). Children can be taught a new skill at school (1 mark: what). A child can observe a teacher showing them how to complete a new skill and then are given the opportunity to replicate it (1 mark: how). Can be used by TV companies/video games creators/toy companies (1 mark: what) by reducing the amount of aggression in programmes/presenting more prosocial behaviour (1 mark: how). Parents can use it to sensor TV/videogame content/time for their children (1 mark: what) by restricting the time played/presenting more prosocial behaviour/not allowing them to play aggressive games (1 mark: how). There are other creditworthy suggestions.	2	Annotate with a tick for what the application is and a + for how it will be achieved. Do not credit explaining everyday behaviours, for example, we must be careful what we do around others, or it explains why some people get aggressive. A finding can be used as a 'what' if it leads logically into the 'how'.

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Question	Answer	Marks	Guidance
4	In Experiment 1 in the study by Perry et al. (personal space), participants were given oxytocin (OT) or a placebo (PL). Describe <u>one</u> result from the high empathy OT condition that compares two approaching figures. You <u>must</u> use data in your answer. 2 marks for the result with a meaningful comparison. 1 mark for result with no meaningful comparison. 1 mark for correct data. e.g., 3 marks The mean distance for the ball invading personal space was lower than that for a stranger (40). The mean distance for the stranger invading personal space was higher than that for a friend (8.4). e.g., 2 marks The mean distance for the ball invading personal space was lower than that for a stranger. The mean distance for the stranger invading personal space was higher than that for a friend e.g., 1 mark The mean distance for a friend invading personal space was the lowest. The mean distance for the stranger invading personal space was the highest.	3	Tolerance for any reported mean is 2. Use tick-d for the data mark. Authority = boss/teacher but not parent/family. No credit for comparisons with placebo or low empathy.

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Question	Answer	Marks	Guidance
5(a)	Outline <u>one</u> assumption of the social approach. 2 mark full/detailed assumption. 1 mark partial/brief assumption. e.g., 2 marks Behaviour, cognitions, and emotions are influenced by social contexts, social environments and social groups (any 2 mechanisms). Behaviour, cognitions and emotions are influenced by actual, implied or imagined presence of others (any 2 of these). e.g., 1 mark Behaviour is affected by other people. Behaviour is influenced by groups.	2	For 2 marks need two of the ‘influenced’ components to be presented by the candidate. Other acceptable ‘influenced by’ examples include: Interaction with others Social pressure
5(b)	Explain how the study by Piliavin et al. (subway Samaritans) supports the assumption you outlined in part (a). 1 mark for result/conclusion/concept. 1 mark for linking it to an assumption explicitly. e.g. They were affected by the social context of witnessing a drunk person needing help (1 mark). They were less likely to help as it was seen as ‘self-inflicted’ (1 mark). When there was a larger group, it affected their behaviour as they were faster at helping (1 mark).	2	If the link is not with an assumption from 5(a), it can only be awarded the result/conclusion mark. 1 mark maximum if linked to the aim of the study, rather than a finding, e.g., diffusion of responsibility.

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Question	Answer	Marks	Guidance
6(a)	Describe the psychology being investigated in the study by Hassett et al. (monkey toy preferences). 1 mark for each correct statement. Examples from the study by Hassett can gain credit (max 1). e.g., Sex differences refer to behavioural differences based on <u>biological</u> differences between males and female. These can be based on hormones/chromosomes. The main male hormone is testosterone/the main female hormone is oestrogen. Play is any mental/physical activity performed in leisure time for enjoyment/pleasure. Socialisation is any mechanism that changes/adapts a behaviour to societal/cultural expectations. The study looked at whether male and female monkeys preferred masculine or feminine toys (1 mark: example). There are other creditworthy responses.	3	 use this when you award the 'example mark'. Do not accept any answer about <u>gender of monkeys</u>. Accept description of nature-nurture for 1 mark.

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Question	Answer	Marks	Guidance
6(b)	Two friends, Madison and Zach, are discussing the validity of the study by Hassett et al. (monkey toy preferences). Madison says the study has validity, but Zach says it does <u>not</u> have validity. Outline why you think <u>either</u> Madison or Zach is correct, using evidence from the study. 1 mark per point made, with: 1 identification mark for a relevant type of validity. Up to 3 marks for examples in relation to why/why not valid. e.g., Madison it could be argued that the study has some ecological validity (1 mark: identification) as the enclosure was their everyday setting (1 mark). The study did have some controls like the types of toys chosen for wheeled/plush (1 mark). This means that this variable was less likely to affect the DV of toy choice/preference (1 mark). This also meant that it more likely that the idea of masculine/feminine toys was affecting the frequency/duration of play (1 mark). e.g., Zach The act of having to choose human toys to play with is not an everyday activity for monkeys (1 mark). This means that the study lacks ecological validity/mundane realism (1 mark: identification). Also, there were no participant variables controlled for like amount of previous experiences with novel objects (1 mark), it could be that a monkey/monkeys were drawn to the more exciting toys and not because of the sex-typing (1 mark)	4	If both Madison and Zach feature in the answer, mark them independently and credit the highest score. If the candidate mixes up Madison and Zach (e.g., says Zach but gives a 'it is valid' based answer) then max 2 and annotate with ?  = identification mark Standardisation, reliability, replicability = 0 marks Identification mark from: Ecological validity/external Mundane realism Internal validity/IV affects DV/causal relationship Population validity Control extraneous variables

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Question	Answer	Marks	Guidance
6(b)	There are other creditworthy responses, including monkeys were not exposed to any societal pressures, videotaped so no effect if having an experimenter nearby, toy categorisation may have influenced toy choice, use of counterbalancing, social rank controlled.		

Question	Answer	Marks	Guidance
7	In the study by Milgram (obedience), a shock generator was used. It consisted of 30 lever switches in a horizontal line. Describe the shock generator used in this study, other than these features. 1 mark per correct point. Each switch was clearly labelled with a voltage. The volts ranged from 15 V to 450 V/minimum 15 V/maximum 450 V. Each button went up by 15 V levels. Verbal designations for groups of four voltage levels. Last two were labelled (simply) XXX. Upon depressing a switch, a red light appeared. An electric buzzing was emitted. A blue light labelled ‘voltage energizer’ would light up. Labelled Slight Shock to Danger Severe Shock (any two of these can be credited for max 1 mark). Was connected to the learner by electrodes/wires that were ‘supposed’ to send a shock.	5	List is definitive. If XXX already awarded, then needs to be two <u>different</u> labels to gain the final marking point. Do not credit the 1,2,3,4 answer box.

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Question	Answer	Marks	Guidance
8	Your friend, Alfonso, is finding it difficult to concentrate at school. He tells you that his concentration is worse when he is bored. He has come to you for advice about ways to help him improve his concentration. Outline the advice you would give to Alfonso, using your knowledge of the study by Andrade (doodling). 1 mark per piece of advice clearly based on the study by Andrade. e.g. Tell Alfonso to have a piece of paper in class. Tell Alfonso that he can draw shapes on the paper. Tell Alfonso that he can shade the shapes. Alfonso can shade/draw whenever he wants/about whatever he wants. Tell Alfonso it does not matter how neat/quick he is when shading/drawing. The paper can already have shapes on it he can colour them in. He could do this when the teacher has told him that important information needs to be remembered. There are other creditworthy pieces of advice.	4	No credit for justifying advice as this is not what the question is about. Do not credit ‘doodling’, ‘doodle’ or ‘secondary task’ by itself. Do not accept scribbling. Do not accept go into a quiet dull room.

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Question	Answer	Marks	Guidance
9(a)	Describe the Five Facet Mindfulness Questionnaire (FFMQ) used in the study by Hölzel et al. (mindfulness and brain scans). 1 mark per correct point. 1 mark available for <u>naming</u> one of the five facets. It is a 39-item questionnaire. Measures the five factors of mindfulness: observing/describing/acting with awareness/non-judging of inner experiences/ non-reactivity to inner experience (1 mark maximum). Rated on 5-point scale/scale of 1–5/Likert scale 1=never or rarely true. 5=very often or always true.	4	List is definitive. No credit for <u>describing</u> any of the five facets. A response of: 1 = never; 5 = very often is 3 marks (1–5 and the two correct examples)

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Question	Answer	Marks	Guidance
9(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Hölzel et al. (mindfulness and brain scans) and <u>one</u> other study from the biological approach. Do <u>not</u> refer to questionnaires. Use the marking grid below. 4 marks for the similarity, e.g., small samples, data collection techniques, experimental design, brain scans. 4 marks for the difference, e.g., brain measurement techniques, research techniques used, type of data collected (quantitative/qualitative). e.g. difference 4 marks Hölzel used an MRI scan to be able to see brain density changes after a mindfulness stress reduction course. Dement & Kleitman used a different technique called an EEG that could only monitor brain wave activity/patterns. Therefore, Hölzel's method looked at structure whereas Dement looked at (real-time) function (explanation). 3 marks Different techniques were used to measure the brain. Hölzel used an MRI scan to be able to see brain density changes after a mindfulness stress reduction course/Dement & Kleitman used a different technique called an EEG that could only monitor brain wave activity/patterns. 2 marks Hölzel used an MRI scan to measure brain density whilst Dement & Kleitman used an EEG. 1 marks Both studies used different techniques to measure the brain.	8	The other biological approach studies are Hassett and Dement. Do accept Perry but only for oxytocin-related comparisons. Award L1–L4 for the similarity Award L1–L4 for the difference For Level 4 there must be some attempt at <i>explaining</i> the similarity/difference. Different aims = L1. Different species = L1. Same species = L1. Both have applications = L1. Both study biology = L0. Any response where it is just describing what each study did, take as different aim = L1

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Question	Answer		Marks	Guidance
9(b)	Mark/ Level	Description		
	4	The similarity/difference is well explained using both studies as examples.		
	3	The similarity/difference is well explained but only one study is used as an example OR both studies are used briefly.		
	2	The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.		
	1	The similarity/difference is brief with no attempt at using the studies as examples.		
	0	No creditable response.		

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Question	Answer	Marks	Guidance
10	Evaluate the study by Saavedra and Silverman (button phobia) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about subjective data. Strengths include reliability (standardisation), quantitative data, validity, self-reports. Weaknesses include subjective data, ethics, generalisability, quantitative data, self-reports. Example: in detail The sample was one boy with a button phobia so it may be difficult to generalise/he had a 'unique' phobia of buttons. Females may react differently to the type of therapy as they tend to be more emotional, plus people with other types of phobia may not find a Feelings Thermometer useful if the phobia is not a concrete object. Example: brief but in context The participant could have lied/given false responses/shown social desirability. He could have rated some of the buttons differently to how he felt as he did not want to look as scared. Example: no context There was a standardised procedure meaning it could be replicated/tested for reliability.	10	

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Question	Answer			Marks	Guidance
10	Level	Description	Mark		
	5	• Very good evaluation including the named issue. • Thoroughly addresses both strengths and both weaknesses in detail. • Selection of evidence is very thorough and effective.	9–10		
	4	• Good evaluation including the named issue. • Addresses strengths and weaknesses but may include three or four points. The majority of the points are in depth. • Selection of evidence is thorough and effective.	7–8		
	3	• Mostly appropriate evaluation but may not include the named issue. • Addresses either two strengths or two weaknesses in detail or one of each in detail or all four briefly. • Selection of evidence is mostly effective.	5–6		

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Question	Answer			Marks	Guidance
10	Level	Description	Mark		
	2	- Weak evaluation and may not include the named issue. - Addresses either a strength or a weakness. Evaluation points are brief. - Some points may have no context. - Selection of evidence is sometimes appropriate.	3–4		
	1	- Little or no evaluation. - Discussion of strengths and weaknesses is absent or superficial. - Selection of evidence is limited.	1–2		
	0	No creditable response.			