GCE

Psychology

H167/02: Psychological themes through core studies

AS Level

Mark Scheme for June 2023

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

MARKING INSTRUCTIONS

PREPARATION FOR MARKING
RM ASSESSOR

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor assessor Online Training*; *OCR Essential Guide to Marking*.

2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal http://www.rm.com/support/ca

3. Log-in to RM Assessor and mark the **required number** of practice responses ("scripts") and the **number of required** standardisation responses.

MARKING

1. Mark strictly to the mark scheme.

2. Marks awarded must relate directly to the marking criteria.

3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.

4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RM Assessor messaging system, or by email.

5. **Crossed Out Responses**
   Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

   Rubric Error Responses – Optional Questions
   Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Contradictory Responses
When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only **one mark per response**)
Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth **two or more marks**)
If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)
Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there, then add a tick to confirm that the work has been seen.

7. Award No Response (NR) if:
   - there is nothing written in the answer space

   Award Zero '0' if:
   - anything is written in the answer space and is not worthy of credit (this includes text and symbols).

   Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.

8. The RM Assessor **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**

If you have any questions or comments for your team leader, use the phone, the RM Assessor messaging system, or e-mail.

9. A*ssistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.*

10. For answers marked by levels of response:
    a. **To determine the level** – start at the highest level and work down until you reach the level that matches the answer
    b. **To determine the mark within the level**, consider the following

Descriptor	**Award mark**
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

11. Annotations

Annotation	Meaning
	Blank page
	Meaning unclear
	Incorrect
	
	Something incorrect/contradictory
	Correct
	Development/explanation of point
	Missing information
APP	Application to the source/article
CONT	Development/expansion
NAQ	Not answering question
RES	Good use of evidence from research
SEEN	Seen (to show content on page has been noted but not credited)
BOD	Benefit of doubt given
IRRL	Irrelevant
EVAL	Evaluation
	Highlight

Question			Answer	Mark	Guidance
1	(a)		**Participants in Grant et al.'s (1998) study into context-dependent memory completed two types of test.** **Identify which <u>one</u> of these types of tests was completed first.** Short-answer or recall test.	1	**1 mark** – A correct answer. **0 marks** – No or incorrect answer.
1	(b)	(i)	**Outline why Loftus and Palmer conducted their (1974) experiments into eyewitness testimony.** Likely answers: • They conducted their experiments to investigate the effects of leading questions – information introduced after the event – on how accurately events were remembered. The researchers wanted to find out if changing the wording of a question describing how fast cars were travelling when involved in a crash would affect how participants perceived or remembered the event.	3	**3 marks –** A clear, well-described outline such as the one given, which must contain reference to **both** the effect of leading questions and influenced/distortion on/of memory, and includes precisely contextualised supporting detail (from either or both experiments). **2 marks** – An outline which contains references to **both** the effect of leading questions and influence/distortion on/of memory (may or may not contain limited supporting contextual detail from the study, e.g. verb) OR An outline which contains references to **either** the effect of leading questions **OR** influence/distortion on/of memory **AND** contains limited supporting contextual detail from the study (e.g. verb). **1 mark** – A partial or <u>uncontextualised</u> answer, e.g. The experiments looked at the effect of leading questions. **0 marks** – No or incorrect answer.
1	(b)	(ii)	**Describe how the independent variable (IV) was manipulated in Loftus and Palmer's (1974) <u>second experiment</u> into eyewitness testimony.** Likely answers: • (Through the wording in the questionnaire) one group was asked, 'About how fast were the cars going when they smashed into each other?',	3	**3 marks –** A correct reference is made to all three conditions, i.e. smashed, hit, no verb. **2 marks –** A correct reference is made to only two of the conditions. **1 mark –** A correct reference is made to only one of the conditions, each group was asked either a different question or no question at all (no real context) or each

			one group was asked, 'About how fast were the cars going when they hit each other?', a third group was not asked about speed. • One group was asked a question about speed using the verbs 'smashed', another group was asked a question about speed using the verb 'hit', a third group was not questioned about speed. • Other appropriate answer.		group had an altered verb in the question (with limited context). **0 marks –** No or incorrect answer.
2	**(a)**		**Outline <u>two</u> controls used by Milgram's (1963) study into obedience.** Possible suggestions include: • The setting at Yale University was the **same** for every participant. • Who was to be the teacher and who was to be the learner was **always** controlled through a fixed lottery. • The learner's responses were **always** the **same** (because they had been recorded/were played on a recorder). • The experimenter's verbal prods were **always** the **same**, e.g. 'Please continue/Please go on'; 'The experiment requires that you continue'; 'It is absolutely essential that you continue'; 'You have no other choice; you must go on'. • The **same** electric shock machine was used by **every** participant. • The shock machine was **standardised** with voltage levels rising in 15-volt intervals from 15v – 450v. • **Each** participant was given a 45v sample shock. • Other appropriate answer.	**(2+2) 4**	**For each control:** **2 marks –** A clear, contextualised response. **1 mark –** A partial or <u>uncontextualised</u> answer, e.g. The setting was the same for all participants. **0 marks –** No or incorrect answer. **N.B.** Understanding of the word 'control' must be demonstrated to get credit (e.g. same, all, always, standardised, every participant, each participant).

2	**(b)**		**Bocchiaro *et al.* used a comparison group to predict the results of their (2012) study into disobedience and whistleblowing.** **Describe the procedure used in this part of the study.** • Participants were provided with a detailed description of the scenario in which other students would be asked to persuade associates to participate in a sensory deprivation study. They were then asked to say, 'What would you do?' and 'What would the average student at your university would do?' • Participants were asked to predict their behaviour and that of others when facing the scenario designed for the main investigation in which other students would be asked to persuade associates to participate in a sensory deprivation study. • Participants were asked to predict how they would behave if they were asked to write a letter persuading associates to participate in a sensory deprivation study. They were also asked to predict how they thought other students from their university would behave if they were asked to do the same. • Other appropriate descriptions.	**3**	**3 marks –** A clear and accurate response that refers to all 3 aspects: (a) They were asked to predict what they would do. (b) They were asked to predict what other students at their university/people/participants would do. (c) The prediction of behaviour is related to the scenario on sensory deprivation designed for the main investigation. **2 marks –** Only two aspects of the procedure are identified, e.g. Participants were asked to predict what they and what other students at their university would do. **1 mark –** Only one aspect of the procedure is identified, e.g. They were asked to predict what they would do. **0 marks –** No or incorrect answer**.**

Question			Answer	Mark	Guidance
3	(a)		**Bandura *et al.* (1961) in their study on transmission of aggression used an independent measures design.** **Explain a strength of this design as used in this study.** Likely answer: • A strength of this design as used in this study is that there is no chance of boredom/fatigue/practice (order effects) by the children witnessing more than one condition (1), i.e. an aggressive male model, an aggressive female model, a non-aggressive male model, and a non-aggressive female model (1). • A strength of this design as used in this study is that because different children are used in each condition, they only witness one of a male/female aggressive model, male/female non-aggressive model or no model (1) and so they are unlikely to guess the aim and change their behaviour (demand characteristics) in the final stage (1). • Other appropriate answer.	2	**2 marks –** A clear contextualised strength of an independent measures design is identified. **1 mark –** A strength of an independent measures design is merely identified, i.e. no contextualisation, e.g. a strength of an independent measures design is that participants only take part in one condition so there is no chance of boredom influencing behaviour in the testing/final stage; OR understanding of an independent measures design is vague though the candidate has attempted to contextualise their response, e.g. the children only took part in either the aggressive or non-aggressive conditions. **0 marks –** No or incorrect answer.
3	(b)		**Identify <u>two</u> features of the sample used in Chaney *et al.'s* (2004) Funhaler study.** Any two from: • Australian / 32 / children / males and females / age range 1.5-6 years / mean age 3.2 years / average duration of asthma 2.2 years / asthma sufferers / used inhalers (and spacers).	1+1	**1 mark –** Any one feature. **0 marks –** No or incorrect answer.
4			**Describe how the type of data collected and the equipment used differed between Sperry's (1968) study on hemisphere deconnection and Casey et al.'s (2011) study on neural correlates of delay of gratification.**	2+2	

			Likely answers: **Type of data collected** Sperry gathered qualitative data whereas Casey *et al.* gathered quantitative data (1). One extra mark for elaborating on either: e.g. • Sperry presented his findings qualitatively by describing what participants could and could not do in relation to visual and tactile tasks, e.g. information presented to the left visual field could not be described in speech or writing (1), • OR Casey *et al.* presented their findings quantitatively, e.g. for experiment 2 in the 'hot' No-Go trial, low delayers made more false alarms/errors (14.5%) compared to the high delayers (10.9%) (1). **The equipment used** Sperry used a tachistoscope and objects (to test visual and tactile abilities) (1) whereas Casey *et al.* used a computer (for the Go/No-Go task) and a fMRI scanner (to examine neurocorrelates of delay of gratification) (1).		**In relation to the type of data:** **2 marks –** A description that: • identifies that Sperry collected qualitative data whereas Casey collected quantitative data. • Elaborates through contextualisation on either Sperry's OR Casey's data (numerical responses or description of quantitative data). **1 mark –** A description that merely identifies that Sperry collected qualitative data whereas Casey collected quantitative data. **0 marks –** No or incorrect answer. **In relation to the equipment used:** **2 marks –** A description that clearly identifies the equipment used by **both** Sperry and Casey. **I mark –** A description that **either** makes a vague attempt at describing the equipment used by both Sperry and Casey **OR** a clear description of the equipment used by one of the researchers**.** **0 marks –** No or incorrect answer.
5			**Baron-Cohen *et al.* conducted a study into autism in adults.** **Outline how the procedure used in the Eyes task helped to ensure the reliability of the findings.** Likely answers: • Baron-Cohen *et al.* used a standardised procedure (1) in which participants were shown 25/ black-and	**3**	**3 marks-** A clear and accurate description that refers to: (a) The fact that the procedure was standardised (to ensure reliability). (b) The fact that participants were all treated the same. (c) **One** feature of the Eyes task that was standardised.

			white photographs of eyes/the same size (dimensions)(1). This was the same for all participants which helped to ensure the reliability of the findings.(1) • All (1) participants being shown 25 black-and-white photographs of eyes (1) each being shown for 3 seconds (1). (This helped ensure the reliability of the findings.) • The procedure was standardised (1) by presenting all participants the same photographs of eyes (1). The Eyes Task required participants to choose between two mental state words (target and foil) (1). • Other appropriate answer.		**2 marks –** A reasonable answer which contains two of the above features, e.g. The procedure was standardised (1) with all (1) participants being shown the same sets of eyes. **1 mark –** A vague or uncontextualised answer, e.g. The procedure was standardised (1). **0 marks –** No or incorrect answer. **N.B**. A definition/understanding of reliability alone does not earn a mark.
6	**(a)**		**Outline the defining principles of the nature/nurture debate.** Likely answers: • Nature sees behaviour being strongly influenced by genetic, biological and physical factors. (1) Nurture, on the other hand, see behaviour being strongly influenced by learning processes and the environment. (1) • The nature side of the debate considers behaviour to be the result of genetic inheritance (1) whereas the nurture side of the debate considers behaviour to be due to how we have been brought up. (1) • Nature sees genetic, biological and physical factors as the explanation for thinking and behaviour (1) whilst nurture sees behaviour as learned or acquired through experiences in the environment. (1) • Other appropriate answer/principle(s).	**2**	**2 marks –** A clear response that identifies a defining principle of both nature and nurture. **1 mark –** A vague response *or* one that only refers to either nature or nurture, e.g. One believes behaviour is influenced by genetics and biological factors whilst the other believes behaviour is influenced by learning processes (vague); Nature sees behaviour being strongly influenced by genetic, biological and physical factors (only refers to only nature or nurture). **0 marks –** A muddled response that identifies nature/nurture but then provides the alternative explanation, e.g. Nature sees behaviour being strongly influenced by learning processes and the environment; nurture sees behaviour being strongly influenced by genetic, biological and physical factors.

Question			Answer	Mark	Guidance
6	(b)		**Explain how Freud's (1909) study of Little Hans can support the nature side of the nature/nurture debate.** Likely answers: • Freud claimed that all children go through set stages of psychosexual development which are determined by maturation. These are subconscious but natural stages and include the phallic stage during which boys experience the Oedipus complex. Whilst in this stage boys subconsciously develop a strong attachment to their mother and sense their father as a rival. Freud documented the case of Little Hans to show how his fears, dreams and fantasies were symbolic of his unconsciously passing through the phallic stage. Just before he was three, Hans started to show a lively interest in his 'widdler' which Freud attributed to Hans being in the phallic stage, (a natural stage of maturation). • Freud claimed that all children subconsciously go through natural, set stages of psychosexual development which are natural progressions as an individual matures. He documented the case of Little Hans to show how his fears, dreams and fantasies were symbolic of his unconsciously experiencing the Oedipus complex. For example, Hans had a giraffe fantasy in which there was a big giraffe and a crumpled giraffe. Hans took the crumpled giraffe away from the big one and sat on top of it. This was interpreted as a representation of Hans trying to take his mother away from his father so he could have her to himself. Freud claimed that a boy's subconscious desire to have his mother for himself is a feature of the Oedipus	3	**3 marks –** A clear and accurate explanation of how Freud's study can support the nature side of the debate. The response must include: (a) Reference to the nature side of the debate. (b) How Freud's study links to the nature side of the debate. (c) Supporting evidence from Freud's study. **2 marks –** A reasonable explanation which may lack clarity in relation to how Freud's study links to the nature side of the debate/may have weak or vague supporting evidence, e.g. Freud claimed that all children subconsciously go through natural, set stages of psychosexual development. Freud documented how Hans' fascination with his 'widdler' were symbolic of his unconsciously passing through the phallic stage. **1 mark –** A vague answer *or* one that is uncontextualised to Freud's study, e.g. Freud documented how Hans' fascination with his 'widdler' were symbolic of him unconsciously passing through the phallic stage (vague); Freud claimed that all children subconsciously go through set stages of psychosexual development (no contextualisation). **0 marks –** No or incorrect answer.

			complex which, in its turn, is a feature of the phallic stage of psychosexual development. • Other appropriate answer.		
6	**(c)**		**Explain how Chaney *et al.'s* (2004) Funhaler study can support the nurture side of the nature/nurture debate.** Likely answers: • Chaney *et al.* showed that behaviour can be strongly influenced by external factors in the environment. They showed that children can learn behaviour through the process of positive reinforcement because when participants used the Funhaler correctly, the positive reward of seeing/hearing the toy work, had a positive effect on their asthmatic conditions making them more willing to adhere to their medical regime, thus improving their health status. • Chaney *et al.* found that when children used the Funhaler correctly, their asthma improved. This external influence meant that the children learned through the process of operant conditioning (learning as a result of the consequences of behaviour) that using an inhaler correctly can lead to improved health status. This shows that behaviour can be strongly influenced by learning processes and the environment. • Other appropriate answer.	**3**	**3 marks –** A clear and accurate explanation of how Chaney *et al.'s* study can support the nurture side of the debate. The response must include: (a) Reference to the nurture side of the debate. (b) How Chaney *et al.'s* study links to the nurture side of the debate. (c) Supporting evidence from Chaney *et al.'s* study. **2 marks –** A reasonable explanation which may lack clarity in relation to how Chaney *et al.'s* study links to the nurture side of the debate/may have weak or vague supporting evidence, e.g. Chaney *et al.* showed that children can learn behaviour through the process of positive reinforcement because when participants used the Funhaler correctly, their asthma improved. **1 mark –** A vague answer *or* one that is <u>uncontextualised</u> to Chaney *et al.'s* study, e.g. Chaney et al. showed that children's asthma improved as they learned to use the Funhaler correctly (vague); Chaney *et al.* showed that children can learn behaviour from the external environment through the process of operant conditioning/ positive reinforcement (no contextualisation). **0 marks –** No or incorrect answer.
6	**(d)**		**Describe <u>two</u> strengths of the biological area. Support your answer with evidence from appropriate core studies.** Likely answers:	**(3+3) 6**	**For each strength:** **3 marks –** The clear and accurate answer which: (a) Identifies a relevant strength, (b) Elaborates on the strength, (c) Supports the strength with appropriate evidence from Sperry or Casey *et al*.

			• A strength of the biological area is that it uses scientific research methods which enhances the image of Psychology as a science. Studies are usually conducted in a laboratory setting using specialised equipment. For example, Sperry, in his study into hemisphere deconnection used as tachistoscope to project images onto a screen which were then flashed to either the participant's RVF or LVF/Casey et al. used a fMRI scanner to measure levels of activity in the right inferior frontal gyrus and ventral striatum. • A strength of the biological area is that it allows for the study of cause and effect. One is able to study the effect of an independent variable (IV) on a dependent variable (DV). For example, Casey *et al.* were able to study the effect of being either a low or a high delayer (a naturally occurring IV) on the performance on the impulse control task (DV) and having found that low delayers made the most errors on the 'happy face' Go/No-Go trial, they were able to suggest that this poorer performance was caused by those participants being low delayers. • A strength of the area is that it leads to advances in understanding and practical applications which can be useful not only for the individuals concerned but society as a whole. For example, Sperry's work showed that, although in reality, there were few debilitating effects of having a commissurotomy, one must be cautious when performing brain surgery as damaging parts of the left hemisphere may leave the patient unable to speak/Casey *et al.* showed how the ability to delay immediate gratification in favour of long-term goals may be useful for an individual's well-being.		**2 marks –** A reasonable explanation which may lack clarity, e.g. A strength of the biological area is that it allows for quantitative data to be gathered. Sperry was able to compare 'normal' people with those who had had a split-brain operation and showed that those with a split brain were unable to identify in speech or writing information presented to the left visual field whereas 'normal' people could. **1 mark –** A vague answer *or* one that is <u>uncontextualised,</u> e.g. A strength of the biological area is that it uses scientific research methods which enhances the image of Psychology as a science. Studies are usually conducted in a laboratory setting using specialised equipment (no contextualisation). **0 marks –** No or incorrect answer.

			• A strength of the biological area is that it allows for quantitative data to be gathered. This allows for comparisons to be made between individuals and/or groups. For example, the fMRI results in Casey *et al.'s* study showed that compared to high delayers, low delayers had diminished recruitment (low activity) of the inferior frontal gyrus for correct No-Go relative to Go trials. • Other appropriate strengths.		
6	**(e)**		**Discuss to what extent the biological area is similar to the developmental area. Support your answer with evidence from appropriate core studies.** Likely similarities: • Both allow experiments to be conducted, e.g. Sperry/Casey *et al.* + Bandura *et al.* /Chaney *et al*. • Both gather quantitative data, e.g., Casey *et al.* + Bandura *et al.*/Chaney *et al*. • Both allow for the use of specialised equipment, e.g., Sperry/Casey *et al*. + Bandura *et al.*/Chaney *et al*. • Both allow for studies to be conducted in controlled environments, e.g., Sperry/Casey *et al.* + Bandura *et al*. • Both use scientific methodology to measure behaviour by manipulating an IV to see its effect on a DV, e.g., Sperry/Casey *et al.* + Bandura/ Chaney *et al*. • Both can lack ecological validity, e.g., Sperry/Casey *et al.* + Bandura *et al.* • Other appropriate similarities.	**11**	**GOOD** **10-11 marks** for a response that demonstrates **good** analysis that is relevant to the demand of the question. Clear, detailed accurate similarities are made. Analysis/argument is **coherently** presented with **clear** understanding of the points raised (they are all identified AND explained). A range of at least three points of comparison *(any combination of BOTH similarity(ies) and difference(s))* are considered in detail. Discussion is highly skilled and shows good understanding. **All** points are supported by relevant and appropriate evidence. **REASONABLE** **7-9 marks** for a response that demonstrates **reasonable** analysis that is **mainly** relevant to the demand of the question. Analysis/argument is **mainly** coherently presented with **reasonable** understanding of the points raised (all points are identified AND mainly explained). At least three points of comparison that are one-sided *(only similarity(ies) OR difference(s))* are considered. **All** points are supported by relevant and appropriate evidence though this may, in places, be somewhat sparse of vague.

			Likely differences: • The biological area frequently studies adults whereas the developmental area tends to concentrate on children, e.g. Sperry/Casey *et al.* + Chaney *et al.*/Bandura *et al.* • The developmental area offers more opportunities than the biological area to conduct ecologically valid data, e.g. Sperry + Chaney *et al.* • The biological area supports nature whereas the developmental area supports nurture (and nature) e.g. Sperry/Casey *et al.* + Bandura/ Chaney *et al*. • Other appropriate differences. Example answers: GOOD • Both the biological and the developmental area allow for the collection of quantitative data. For example, Casey *et al.* found in Experiment 1 that both high and low delayers were highly accurate in their correct responses to Go trials in both 'cool' and 'hot' conditions (99.8% and 99.5% correct, respectively) and Bandura *et al.* found that boys who had witnessed a male aggressive model were significantly more likely to display imitative physical aggression than girls who had witnessed a male aggressive model (aggression scores 25.4 and 7.2 respectively). Both areas allow for the use of specialised equipment. For example, Sperry used a specially designed tachistoscope to test visual and tactile abilities and Chaney *et al.* devised the Funhaler to test whether adding enjoyment to using an inhaler would improve adherence to medical regimes subsequently improving asthmatic conditions. Furthermore, both areas can lack ecological validity. Sperry's		**LIMITED** **4-6 marks** for a response that demonstrates **limited** analysis that is **sometimes** relevant to the demand of the question. Analysis/argument lacks clear structure/organisation and has **limited** understanding of the points raised. At least two points of comparison *(either two similarities OR two differences OR one similarity and one difference)* are considered. Points are **occasionally** supported by relevant and appropriate evidence. **BASIC** **1-3 marks** for a response that demonstrates **basic** analysis that is rarely relevant to the demand of the question. Analysis/argument lacks clear structure/organisation and has **basic** understanding of the points raised (identified similarities are seldom explained). *Only one similarity/difference is likely to be identified.* The identified similarities are **not** supported by relevant and/or appropriate evidence/supporting evidence is hardly perceptible. **0 marks –** No or incorrect answer.

			participants sat in front of a tachistoscope and had images flashed to either their right or left visual field to test visual capabilities of split-brain patients. Whilst Bandura *et al.* had three rooms set out in an ordered way to test whether children who witnessed a model displaying aggressive behaviour would imitate that behaviour. Neither of these examples really relate to real life situations. On the other hand, the developmental area offers more opportunities than the biological area to conduct ecologically valid data. For example, Chaney *et al*. allowed the children to use the Funhaler in their own homes which offered high ecological validity whereas Sperry conducted his study in a high controlled environment using specially designed equipment and made participants cover one eye whilst trying to respond to visual and tactile tasks which does not reflect a real-life situation. REASONABLE • Both the biological and the developmental area allow for the collection of quantitative data. For example, Casey *et al.* found that individuals who had been identified as either high or low delayers whilst in nursery school remained either high or low delayers when adults and Bandura *et al*. found that children who witnessed an aggressive model were more likely to act aggressively than children who saw a non-aggressive model. Both areas allow for studies to be conducted in controlled environments. Sperry conducted his study using a tachistoscope in a controlled lab environment and Bandura *et al.* used three specially laid out rooms. Studies in both areas can lack ecological validity. Sperry's participants sat in front of a tachistoscope		

			and Bandura *et al*.'s participants had to sit at a table and play with toys whilst an adult played with a Bobo doll in the opposite corner. These situations do not represent real life. On the other hand, the biological area tends to support nature whereas the developmental area tends to support nurture. For example, Casey *et al*. attributed the ability to resist temptation as being due to the specific brain region of the right inferior frontal gyrus whereas Bandura *et al.* concluded that aggression can be learned through witnessing and imitating an aggressive model. LIMITED • Both the biological and the developmental areas lack ecological validity. Both Sperry's study of split-brain patients and Bandura ***et al.'s*** study into aggression did not represent real life situations. Patients with split brains do not normally sit in front of a special machine and have images flashed to their left and right visual fields. Both areas allow for researchers to see the effect of an IV on a DV. Casey *et al.* were able to see how being a low or high delayer affected activity in different brain areas and Chaney *et al.* were able to see the effect of a Funhaler on medical adherence. BASIC • Both areas collect quantitative data. This was done by both Casey *et al.* in her study on delaying gratification and Bandura *et al.* in their study into aggression in children. Both areas lack ecological validity and so studies to not represent real life situations. For example, Bandura *et al.* had children watch a model act aggressively towards a Bobo doll which is not true to real life.		

7	**(a)**		*In the 1600s, the philosopher John Locke believed that what is learnt in a given environment is best recalled in that environment. In 1975, Locke's belief was tested by Godden and Baddeley who used members of a university diving club as participants in an experiment in two different environments – on land and underwater. In a free recall experiment, the same divers learnt lists of words both on land and underwater. They were then asked to recall the words in either the environment of original learning, or in the alternative environment. Lists learned underwater were recalled significantly better underwater, and lists learnt on land were recalled significantly better on land.* **With reference to the article, identify the research design used by Godden and Baddeley.** *EITHER* • This was a repeated measures design as the same divers were asked to learn and recall information in the two conditions – underwater or on land. *OR* • This was a repeated measures design as the same divers took part in all four conditions: learn underwater/recall underwater; learn underwater/recall on land; learn on land/recall on land; learn on land/recall underwater.	**2**	**2 marks –** The research design correctly identified and supported by evidence from the article. **1 mark –** EITHER: The research design is merely identified. OR: Just the two/four conditions are identified from the article. **0 marks –** No or incorrect answer, e.g., any reference to the research method such as 'experiment'.

7	(b)		**With reference to the article, suggest why Godden and Baddeley's research had high ecological validity.** Likely answers: • Godden and Baddeley's research was high in ecological validity as it took place in a natural environment - on land and underwater -the use of an underwater environment presented an extremely good example of a natural environment which is very different from that on land. • Godden and Baddeley used an underwater environment because it presented an extremely good example of a natural environment which is very different from that on land. It therefore represented a real-world situation. • Other appropriate answer.	2	**2 marks –** A clear and accurate suggestion that shows an understanding of the term ecological validity which is supported by evidence from the article. **1 mark –** An uncontextualised or vague answer with no real understanding of ecological validity evident and is relevant to the article, e.g. it was high in ecological validity as it was conducted in two natural environments (no contextualisation)/ the experiment was done underwater and on land (vague). **0 marks –** No or incorrect answer.
7	(c)		**Explain how this article links to the cognitive area of psychology.** Likely answers: • The cognitive area is concerned with internal mental processes such as memory, perception and attention. This article links with this area because it focuses on memory and what can influence it. Godden and Baddeley found that divers who recalled/remembered list of words learned underwater were best recalled underwater and lists of words learned on land were better recalled/remembered on land. • Other appropriate answer.	2	**2 marks** – A clear and accurate explanation that refers to the focus of the cognitive area and supports this with evidence from the article. **1 mark** – An uncontextualised or vague answer with no identified link to the cognitive area and is relevant to the article, e.g. the cognitive area is interested in inner mental processes such as memory (no contextualisation)/ Godden and Baddeley found that divers who learn words underwater will have better recall underwater than on land (vague). **0 marks** – No or incorrect answer.
7	(d)		**Outline how this article can be linked to Grant *et al.'s* (1998) study into context-dependent memory.** Likely answers:	3	**3 marks –** A clear and accurate answer that refers to: (a) A clearly identified link between Grant *et al.'s* study and the article. (b) Evidence from Grant *et al*.

			• Grant *et al.'s* study is concerned with memory and how the context in which an individual learns information can influence the ability to recall the same information. They found that studying and testing in the same environment (e.g. 'noisy/noisy' and 'silent/silent') led to enhanced performance. This article can be linked to Grant *et al.'s* study as it is also linked to how the context in which something is learned can influence ability to recall the learned information. In the 1600s Locke believed that what is learnt gets associated with the environment it is learnt in, suggesting that the environment in which something is learned can influence an individual's ability to remember information. • Grant *et al.'s* study is concerned with the mental process of memory and how the environment in which an individual learns information can influence the ability to recall the same information. They found that studying and testing in different environments (e.g. 'silent/noisy') led to reduced memory. This article can be linked to Grant *et al.'s* study as it is also linked to how the context in which something is encoded can influence ability to recall the learned information. In 1975, Godden and Baddeley asked divers to learn lists of words on both land and underwater and were then asked to recall the words in either the environment of original learning, or in the alternative environment. Lists learned underwater were best recalled underwater and vice versa, showing how the environment in which something is learned can influence an individual's ability to remember information. • Other appropriate answer.		(c) Evidence from the article. **2 marks –** EITHER : A clear link is made between Grant *et al.'s* study and the article which is only supported by evidence from either Grant *et al.* or the article; OR: A description of the findings of both Grant *et al.* and the article with no clear link made between the two. **1 mark –** A vague or partial answer (<u>no contextualisation</u>), e.g. Both Grant *et al.'s* study and the article show how the context in which an individual learns information can influence their ability to accurately recall the same information. **0 marks –** No or incorrect answer.

7	(e)		**Using your knowledge of psychology, suggest <u>and</u> explain <u>two</u> ways teachers could encourage children to remember important information.** Likely suggestions: • Use of positive reinforcement (rewards)/a token economy, e.g. medals, certificates, tokens. • Vicarious reinforcement, e.g. adverts/ websites showing children who have been successful as a result of learning important information. • Use of observational learning/modelling, e.g. using popular celebrities and characters to promote the value of learning important information. • Establishing social norms, e.g. make learning important information socially desirable/ 'cool'. • Punishment, e.g. punishing children who fail to remember important information. • CBT/changing attitudes/schemas, e.g. children see that the benefits of learning important information outweigh the costs. • Delay of gratification, e.g. play times/ internet/TV usage only allowed after information has been learned. • Consciously applying aspects of Atkinson and Shiffrin's (1972) Multi-store Model of Memory. • Reducing arousal levels as attention and the process of encoding important information are negatively influenced by high arousal levels. • Make sure additional/unnecessary information is not added to what is to be remembered as Loftus and Palmer (1974) (Experiment 2) showed how adding information after an event is later recalled as part of the event.	8	**7-8 marks -** A **high** standard of knowledge and understanding is evident of how two ways could be used to encourage children to remember important information. There is **very effective application** of psychological knowledge within these suggestions. The suggestions are largely accurate and several details have been included about **how** they could be implemented and developed. **5-6 marks -** A **good** standard of knowledge and understanding is shown of how two ways could be used to encourage children to remember important information. There is **effective application** of psychological knowledge within these suggestions. The suggestions are mostly accurate and some details have been included about **how** they could be implemented and developed. **3-4 marks** – A **reasonable** standard of knowledge and understanding is shown of how two ways could be used to encourage children to remember important information. There is **some application** of psychological knowledge within these suggestions. The suggestions are partially accurate. **1-2 marks –** Only **basic** knowledge and understanding is evident of how two ways could be used to encourage children to remember important information. There is weak application of psychological knowledge within these suggestions. The suggestions may have limited accuracy. **0 marks** – No creditworthy response. **N.B.** If only one suggestion is made/the same psychological application is used twice, e.g. two examples of how positive reinforcement could be used, then a maximum of 4 marks to be awarded. Award marks in line with the descriptors above.

			• Present information in a chronological order as Morris & Morris (1985) found this leads to better recall. • Other appropriate suggestions.		**N.B.** The suggestions must be feasible.
7	**(f)**		**Evaluate the suggestions you have made in <u>7(e)</u> with reference to issues and debates you have studied in psychology.** Potential issues for evaluation: • Assumptions relating to nature/nurture • Assumptions relating to freewill/determinism • Assumptions relating to reductionism/holism • Assumptions relating individual/situational explanations • Usefulness • Ethical considerations • Social sensitivity • Psychology as a science • Ethnocentrism • Validity • Reliability	**8**	**7-8 marks -** There is evidence of **good** evaluation that is relevant to the demand of the question. The arguments are coherently presented with **clear understanding** of the points raised. At least **three** appropriate evaluation points relating to issues and debates are considered. The evaluation points are in context and supported by relevant evidence of the description given in 7(e). Both suggestions are evaluated. **5-6 marks** - There is a **reasonable** evaluation that is mainly relevant to the demand of the question. The arguments are coherently presented in the main with **reasonable understanding** of the points raised. At least **two** appropriate evaluation points relating to issues and debates are considered. The evaluation points are mainly in context and supported by relevant evidence of the description given in 7(e). Both suggestions are evaluated. **3-4 marks –** There is **limited** evaluation (most likely only **one** point relating to issues or debates) that is sometimes relevant to the demand of the question. The arguments may lack clear structure/ organisation and show **limited understanding of** the points raised in relation to issues and debates. The candidate may evaluate only **one** suggestion. The evaluation points are occasionally in context and supported by relevant evidence of the description given in 7(e).

					1-2 marks – There is a **basic** evaluation (**one** weak point, loosely related to issues or debates) that is rarely relevant to the demand of the question. Any arguments lack clear structure/ organisation and show a very **basic understanding** of the points raised in relation to issues and debates. Only **one** suggestion is likely to be evaluated. The evaluation points are not necessarily in context and are not supported by relevant evidence of the description given in 7(e). **0 marks** – No creditworthy response. **N.B.** If only one suggestion is evaluated then a maximum of 4 marks to be awarded. Award marks in line with the descriptors above. **N.B.** If the candidate merely evaluates their 7(e) suggestions **without** making any reference to issues and debates **no** marks can be awarded. Any issues and debates must be clearly identified to gain credit. **N.B.** Even if the candidate raises the required number of points for a particular mark band, this does not automatically place the response in that band. The overall quality of the response and the other requirements for each band must be considered.

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