

**Psychology**

Advanced Subsidiary GCE

Unit **G542**: Core Studies

**Mark Scheme for June 2013**

---

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

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.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

© OCR 2013

## Annotations

Annotation	Meaning
	Unclear
	Attempts evaluation
	Benefit of doubt
	Context
	Cross
	Evaluation
	Extendable horizontal line
	Extendable horizontal wavy line
	Significant amount of material which doesn't answer the question
	Not answered question
	Good use of resources
	Tick
	Development of point
	Omission mark

## SECTION A

Generic guidance

- Responses to all questions should relate to the study referred to in the question
- Accuracy of the responses should be checked by referencing the original version of the named study.

Question		Answer	Marks	Guidance
1	(a)	<p>Any two from:</p> <ul style="list-style-type: none"> <li>• (Adult) participants with autism/AS – allow reference to autism or AS alone.</li> <li>• ‘Normal’ (adults)</li> <li>• (Adults) with Tourette syndrome/Tourettes.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg children with autism, children with Down’s syndrome.</p> <p><b>(1 mark)</b> Partial or vague answer eg only one group identified.</p>	[2]	<p>[1+1]</p> <p><i>Up to 1 mark for each group identified (maximum of <b>two</b> identifications).</i></p> <p><i>Any reference to numbers can be ignored as the question only asks for mere identification of groups.</i></p>
	(b)	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• The autistic/AS group was used to show that adults with autism have the core cognitive deficit of a lack of advanced theory of mind skills/lack mindreading skills</li> <li>• The ‘normal’ adults were used as a control/comparison group for both intelligence and mental disorder because they were of normal intelligence and had no histories of psychiatric disorder</li> <li>• The adults with Tourette syndrome were used as a control for the cognitive deficit related to autism ie the lack of advanced TOM skills because they were of normal intelligence but had histories of a developmental/mental disorder since childhood</li> <li>• Other appropriate explanations.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer</p> <p><b>(1 mark)</b> Partial or vague answer eg the autistic group lack a TOM, ‘normal’ adults were used as a control / the ..... group was used as a comparison group, explanation not fully contextualised.</p> <p><b>(2 marks)</b> A clear, fully identified and contextualised explanation of why one of the groups was used, as outlined above eg the Tourette group was used to show lacking a TOM was a core deficit linked to autism.</p>	[2]	

Question	Answer	Marks	Guidance
2	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• Because an analysis was done of 4.5 hours of videotape in which the researchers checked their real time coding against the videotape. The scoring was done independently by two different observers, with one observer scoring the behaviour real time and the other scoring the tape. At the same time the scoring was done, the real-time observer did not know that the data would be used for a reliability check at a future date and thus the real-time scoring was not altered by the knowledge that this was a reliability test. Of the 37 (within +/- 2), utterances scored by both observers, there was 100% agreement with regard to which lexigrams Kanzi used and whether or not they were used correctly in context</li> <li>• Because when inside, Kanzi's language usage was recorded using a lexigram keyboard. This was attached by extension cords to a computer. When a symbol was touched, it brightened. The computer noted and stored which symbol(s) had been pressed. This was an objective and reliable method for recording Kanzi's symbol usage which avoided any researcher bias or misinterpretation of symbol usage</li> <li>• A behavioural concordance measure was devised which required that Kanzi and Mulika use their symbol/utterance correctly on 9 out of 10 occasions, so if a symbol became listed as part of Kanzi or Mulika's vocabulary it had occurred consistently over a number of occasions.</li> <li>• Other appropriate explanation e.g. reference to having 2 or more observers using the same criteria</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg mere reference to the study being longitudinal so the data recorded will be reliable.</p> <p><b>(1-2 marks)</b> Partial or vague answer eg 4.5 hours of videotape were compared to real-time coding which produced 100% agreement / when indoors an electronic keyboard was used which gave an objective and reliable record of symbol usage as it is not biased / symbols had to be used correctly on 9 out of 10 occasions.</p> <p><b>(3-4 marks)</b> An increasingly accurate and detailed description such as one of the ones or a combination of the ones outlined above.</p>	[4]	<p><i>Not all the information needs to be provided to gain full marks but the response must be accurate and contain some fine details.</i></p>

Question	Answer	Marks	Guidance
3	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• Participants were divided into 5 groups. All participants were shown the same seven film clips of different traffic accidents which were originally made as part of a driver safety film. After each clip participants were given a questionnaire which asked them firstly to describe the accident and then answer a series of specific questions about the accident. There was one critical question – ‘About how fast were the cars going when they hit each other?’ One group of participants was given this question whilst the other four were given the verbs ‘smashed’, ‘collided’, ‘bumped’ or ‘contacted’ instead of the verb ‘hit’</li> <li>• Other appropriate description.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg description of Experiment 2.</p> <p><b>(1-2 marks)</b> Partial answer or vague answer eg Participants watched video clips of car crashes and then answered questions on them. There was a critical question which asked them to estimate vehicular speed.</p> <p><b>(3-4 marks)</b> An increasingly accurate and detailed description such as the one outlined above.</p>	[4]	<i>For full marks all 5 verbs need to be correct.</i>

Question	Answer	Marks	Guidance
4	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• The study was conducted in a specially designed environment with three different rooms specially equipped with toys, games etc</li> <li>• Children are not normally escorted into a room, sat in a corner to play with stickers and potato prints whilst a strange adult bashes a bobo doll in the opposite corner</li> <li>• Children are not normally given nice toys to play with and then told by an experimenter that they could no longer play with the toys because they had to be reserved for other children</li> <li>• Other appropriate answers.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg The study was conducted in a specially designed environment / was not a real life situation ie <u>answer not contextualised in any way</u>.</p> <p><b>(2 marks)</b> A clear, accurate, fully contextualised outline of one way the study lacked ecological validity such as one of the ones outlined above.</p>	[4]	<p>[2+2]</p> <p><i>Up to two marks for each way outlined (maximum of <b>two</b> ways).</i></p>

Question	Answer	Marks	Guidance
5	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• The Oedipus complex is experienced by young boys aged about 4 when they are going through the phallic stage of psychosexual development. The boy has <i>subconscious</i> sexual feelings for his mother and fears his father as a rival for his mother's attentions. To resolve this <i>subconscious</i> conflict/complex he identifies with his father and takes on his/imitates his behaviour. Little Hans' fear of horses was considered by Freud as a <i>subconscious</i> fear of his father who he thought would castrate him to stop his <i>subconscious</i> sexual longings for his mother. This was because the dark around the mouth of a horse plus the blinkers resembled the moustache and glasses worn by his father</li> <li>• Other appropriate description.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> Partial or vague answer eg EITHER a mere description of the Oedipus complex not linked to the study OR a contextualised answer without reference to the Oedipus complex eg Little Hans' fear of horses was because they resembled his father who he was (unconsciously) afraid of.</p> <p><b>(3-4 marks)</b> An increasingly accurate, detailed and contextualised description such as the one outlined above.</p>	[4]	<p><i>If there is no reference to the role of the subconscious/unconscious, the candidate cannot gain full marks.</i></p>

Question	Answer	Marks	Guidance
6	<p>Any two from:</p> <ul style="list-style-type: none"> <li>• Conservation of number: two identical rows of counters were displayed. One row was then spread out or bunched up and the child was asked if there were the same number of counters in each row</li> <li>• Conservation of mass: two identical Playdoh cylinders were displayed. One cylinder was then squashed into a pancake or sausage shape and the child was asked if there was the same amount of Playdoh in each shape</li> <li>• Conservation of volume: two identical glasses of water were displayed. The water from one glass was poured into a taller, narrower or shallower, wider glass and the child was then asked if there was the same amount of liquid in each glass</li> <li>• Other appropriate descriptions</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg description of the three experimental conditions.</p> <p><b>(1 mark)</b> Partial or vague answer eg identification of task without a description eg <i>conservation of number / conservation of volume</i>.</p> <p><b>(2 marks)</b> Full description of task as outlined above.</p>	[4]	<p>[2+2]</p> <p><i>These descriptions have been taken from the original study but reference to plasticine/water etc should be credited provided the overall description is accurate.</i></p> <p><i>Diagrams may be included to support the description and so considered as part of the answer.</i></p> <p><i>For 2 marks - reference to the mass/number/volume being the same/identical to start with must be in the answer somewhere.</i></p> <p><i>Task need not be named but the description must make the task clearly identifiable.</i></p> <p><i>Up to 2 marks for each task described (maximum of <b>two</b> descriptions).</i></p>

Question		Answer	Marks	Guidance
7	(a)	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• A strength of a correlation is that it allows the researcher to see if there is a relationship / the strength of the relationship between the two variables being measured (1 mark). Here the variables were length of time as a taxi driver and the volume of grey matter in the (right) posterior hippocampus (1 mark).</li> <li>• A strength of a correlation is that it allows the researcher to see the direction of the relationship between two variables (1 mark). In Maguire's study a positive relationship was shown between the length of time as a taxi driver and the volume of grey matter in the (right) posterior hippocampus (1 mark).</li> <li>• Other appropriate outline.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg EITHER a mere identification of a strength of a correlation <u>with no link to the study</u> OR a mere description of the correlation found in the study.</p> <p><b>(2 marks)</b> A clear, accurate, contextualised outline of a strength of correlations, such as one of the ones outlined above.</p>	[2]	
	(b)	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• A weakness of a correlation is that no cause and effect can legitimately be inferred. Here length of time as a taxi driver cannot be said to be the cause of volume changes in the grey matter in the hippocampus</li> <li>• In Maguire's study, although a positive correlation was found, one cannot state that the length of time as a taxi driver caused the change in the grey matter volume in the (right) posterior hippocampus</li> <li>• Other appropriate outline.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg mere identification of a weakness of a correlation with no link to the study.</p>	[2]	

Question		Answer	Marks	Guidance
		<b>(2 marks)</b> A clear, accurate, contextualised outline of a weakness of correlations, such as one of the ones as outlined above.		
<b>8</b>	<b>(a)</b>	<p>Most likely answer:</p> <ul style="list-style-type: none"> <li>The participant (with one eye covered), centred his gaze on (a designated fixation point in) a translucent/projection screen. Visual stimuli were then back-projected onto the screen at 1/10 of a second/flashed to the left visual field</li> <li>Other appropriate description.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg reference to the right visual field.</p> <p><b>(1 mark)</b> Partial or vague answer eg visual stimuli were flashed to the left visual field / visual stimuli were back-projected onto a screen at 1/10 of a second.</p> <p><b>(2 marks)</b> A clear and accurate outline of how information was presented to the left visual field, such as the one outlined above eg visual stimuli were flashed to the left visual field by being back-projected onto a screen at 1/10 of a second.</p>	<b>[2]</b>	<i>Allow 'very short time' instead of 1/10 second.</i>

Question	Answer	Marks	Guidance
(b)	<p>Most likely answer:</p> <ul style="list-style-type: none"> <li>• Because material presented to the left visual field is received by the right hemisphere which is nonlingual/cannot speak or write</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg right hemisphere can't speak / information received by the LVF goes to the right hemisphere.</p> <p><b>(2 marks)</b> A clear explanation which refers to left visual field and right hemisphere and nonlingual, as outlined above.</p>	[2]	

Question		Answer	Marks	Guidance
9	(a)	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• 45 right answers were given after 5 minutes</li> <li>• 47 right answers were given after 15 minutes</li> <li>• DN was correct 8 times in their estimation of dream length when asked after 5 minutes.</li> <li>• There were more correct estimates of length of REM than incorrect estimates</li> <li>• There were more wrong estimates of length of REM after 15 minutes than after 5 minutes</li> <li>• Overall there were more correct estimates of length of REM for 5 minutes than for 15 minutes</li> <li>• Other appropriate answer</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg identification of one finding only.</p>	[2]	<p><i>Up to 1 mark for each result identified (maximum of <b>two</b> identifications).</i></p> <p><i>Reference to 'more participants' .... is incorrect.</i></p> <p><i>If 2 correct results are embedded in the same sentence award 2 marks.</i></p>
	(b)	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• Some, (but not all) people are able to accurately estimate the length of time they are in REM sleep eg WD made 13/14 correct identifications after 5 minutes</li> <li>• People are better able to estimate the length of time they have been in REM sleep if they are woken after 5 minutes (<i>rather than</i> after 15 minutes) because findings showed that out of 51 awakenings after five minutes of REM the total number of inaccurate estimations was 6 whereas out of 60 awakenings after 15 fifteen minutes of REM the total number of inaccurate estimations was 13</li> <li>• Other appropriate answer</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg another finding is given.</p> <p><b>(1 mark)</b> Partial or vague answer eg some, (but not all) people are able to accurately estimate the length of time they are in REM sleep ie conclusion <u>not supported with findings from the chart</u>.</p> <p><b>(2 marks)</b> Any clear conclusion is provided supported with appropriate evidence from the chart above.</p>	[2]	<p><i>If a comparative conclusion is made it must be supported by an appropriate piece of evidence for each side.</i></p>

Question	Answer	Marks	Guidance
10	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• The victim either: <ul style="list-style-type: none"> <li>- (the drunk condition) smelled of liquor and carried a liquor bottle (wrapped tightly in a brown bag)</li> <li>- or (the cane condition) appeared sober and carried a black cane</li> </ul> </li> <li>• Other appropriate outline.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> Partial answer or vague answer eg EITHER the drunk victim smelled of liquor and the lame victim carried a cane (vague description of both conditions) OR an accurate description of only one condition.</p> <p><b>(3-4 marks)</b> An increasingly accurate and contextualised <u>description</u> of <u>both</u> roles such as the one outlined above.</p>	<b>[4]</b>	<p><i>Not every piece of information has to be included to gain full marks.</i></p> <p><i>The mere identification of the drunk and cane (allow 'ill') condition = 1 mark.</i></p> <p><i>For 4 marks, identification of drunk and cane conditions and 3 other pieces of information relevant to the roles.</i></p>
11 (a)	<p>Most likely answer will cover the following:</p> <ul style="list-style-type: none"> <li>• At their initial briefing guards were told that they had been selected on the basis of their reliability, trustworthiness and initiative. However they were also told that it could have been possible that they had mis-assigned one or more of the prisoners. The guards were therefore told they should observe the behaviour of the prisoners to see if anyone showed guard-like qualities. If they did they were told there was provision for promotion to be made on day 3. This information was also announced to the prisoners over the loudspeaker</li> <li>• Other appropriate outline.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg reference to the variable of legitimacy.</p> <p><b>(1 mark)</b> Partial or vague answer eg prisoners were told they could become guards.</p> <p><b>(2 marks)</b> A clear, accurate description of how the variable was manipulated, based on the information given above.</p>	<b>[2]</b>	

Question	Answer	Marks	Guidance
(b)	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• Many of the prisoners sought to improve their lot by displaying individual qualities necessary for promotion</li> <li>• The prisoners did not develop a shared identity and/or consensus about how they should behave because many of them were trying to show desired guard-like qualities so they could be promoted</li> <li>• Other appropriate outline e.g. prisoners behaved well and co-operated with the guards</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg prisoners tried to be good/behave well.</p> <p><b>(2 marks)</b> A clear, contextualised outline of how the prisoners behaved, such as one of the ones outlined above.</p>	[2]	
12	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• The participant was placed in a position in which he had to respond to the competing demands of two people: the experimenter and the victim/learner. This conflict had to be resolved by meeting the demands of one or the other; the satisfaction of the victim/learner and the experimenter are mutually exclusive. The participant is therefore forced into a conflict with does not permit any completely satisfactory solution and this conflict leaves them stressed and in emotional turmoil</li> <li>• While the demands of the experimenter carry the weight of scientific authority, the demands of the victim/learner spring from his personal experience of pain and suffering. The two claims need not be regarded as equally pressing and legitimate. The experimenter seeks an abstract scientific datum; the victim/learner cries out for relief from physical suffering caused by the participant's actions. Concern over deciding which person to favour leaves the participant stressed and emotional strained</li> <li>• Other appropriate explanation eg reference to being paid and wanting to quit</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p>	[4]	<i>For 4 marks specific reference to the requirement to respond to the competing demands of two people/ situations.</i>

Question	Answer	Marks	Guidance
	<p><b>(1-2 marks)</b> Partial answer or vague answer eg participants were torn between obeying the experimenter and not harming the victim/learner. Participants were distressed because they believed they were hurting the learner with the electric shocks.</p> <p><b>(3-4 marks)</b> An increasingly accurate, detailed and contextualised explanation, such as one of the ones outlined above eg the learner and the authority figure/ being paid and wanting to quit.</p>		

Question	Answer	Marks	Guidance
13	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• The IQ test showed Eve White to have an IQ of 110 and Eve Black an IQ of 104</li> <li>• The memory test showed Eve White to have a memory above her IQ and showed Eve Black to have a memory on par with her IQ</li> <li>• The Rorschach (ink blot) test and the drawings of human figures test showed Eve White to be rigid and not capable of dealing with her hostility, anxious and having obsessive compulsive traits whereas Eve Black was much healthier though a hysterical tendency was predominant/showed Eve White to be repressive and Eve Black regressive</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg reference to the results of the EEG test, qualitative descriptions of the personalities, mere identification of a psychological test (this would be NAQ).</p> <p><b>(1 marks)</b> Partial or vague answer eg Eve White was more intelligent than Eve Black; eg Eve White scored 110 on the IQ test / Eve White scored 110 on the IQ test whereas Eve Black scored 106 / Eve White has a superior memory to Eve Black.</p> <p><b>(2 marks)</b> A clear, contextualised result <u>including fine details for both personalities.</u></p>	[4]	[2+2]

Question	Answer	Marks	Guidance
14	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• 60 participants (44 males, 16 females), mean age 23.4 (+/- 2) years, all of whom had played fruit machines at least once in their lives, were drawn from Plymouth/Devon. 30 of the participants (29 males, 1 female), with a mean age 21.6 (+/- 2) years were defined as regular gamblers/RGs because they gambled on fruit machines at least once a week. The other 30 participants (15 male, 15 female) were defined as non-regular gamblers/NRGs because they gambled on fruit machines once a month or less.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> Partial answer or vague answer eg 30 regular gamblers and 30 non-regular gamblers including males and females.</p> <p><b>(3-4 marks)</b> An increasingly accurate and detailed description such as the one outlined above ie 4 or more features/fine details of the sample.</p>	[4]	<i>Not every piece of information has to be included to gain full marks.</i>
15 (a)	<p>Most likely answers:</p> <ul style="list-style-type: none"> <li>• Writing/making notes was seen as part of their pathological behaviour and so entered on their medical records as 'patient engages in writing behaviour'</li> <li>• When a pseudopatient was found pacing the hospital corridors because he was bored the nurse presumed he was nervous</li> <li>• When a group of patients were seen sitting outside the cafeteria entrance half an hour before lunchtime the behaviour was seen as characteristic of oral-acquisitive nature of their psychiatric condition</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg patients were seen as engaging in writing behaviour, patients were labelled with oral-acquisitive syndrome ie answer not fully contextualised.</p> <p><b>(2 marks)</b> A clear, contextualised answer, such as the one outlined above.</p>	[2]	

Question	Answer	Marks	Guidance
(b)	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• The hospital itself imposes a special environment in which the meaning of behaviour can be easily misunderstood</li> <li>• Psychiatrists would not expect normal people to want to gain admittance to a psychiatric hospital so it was natural that their behaviour would be interpreted as part of their illness</li> <li>• Hospitals are places where patients are often treated in such a way as to perpetuate any problems they may have rather than providing an environment that would help and support them</li> <li>• Staff thought/presumed all patients had psychiatric problems and so viewed all their behaviour in the light of their identified mental illness.</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg because they pretended to exhibit signs of schizophrenia such as saying they could hear voices.</p> <p><b>(1 mark)</b> Partial or vague answer eg the situation itself meant behaviour could be misinterpreted ie <u>answer not contextualised</u>.</p> <p><b>(2 marks)</b> A clear, contextualised suggestion, such as the one outlined above.</p>	[2]	
	<b>Section A Total</b>	<b>[60]</b>	

## SECTION B

Generic guidance

*Responses to all parts of this question must be clearly and accurately related to the chosen study.*

Question		Answer	Marks	Guidance
16	(a)	<p>Likely answers:</p> <p><u>Sperry</u>: to study the functions of separated and independent hemispheres, specifically to see the effects of hemispheric disconnection in split-brain patients.</p> <p><u>Loftus and Palmer</u>: to see the effect of leading questions on memory specifically to find out if changing the verb used in a question about speed would have any effect on the speed estimates given by participants.</p> <p><u>Baron-Cohen</u>: to provide support for a cognitive explanation of autism, specifically that autistic <i>adults</i> lack advanced theory of mind skills / to show that autistic <i>adults</i> lack (advanced) theory of mind skills / to show that autistic <i>adults</i> lack the ability to predict the thoughts or behaviours of another person.</p> <ul style="list-style-type: none"> <li>Other appropriate descriptions.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Partial or vague answer eg <u>Sperry</u> – to study the functions of separated and independent hemispheres; <u>Loftus and Palmer</u> – to see the effect of leading questions on memory / the accuracy of recall; <u>Baron-Cohen</u> – to provide support for a cognitive explanation of autism / to show autistics lack theory of mind; ie <u>answer not contextualised</u>.</p> <p><b>(2 marks)</b> A clear, contextualised description, such as the one outlined above.</p>	[2]	<p><i>Sperry: If there is no reference to ‘the effects of hemispheric disconnection’, the answer has not been fully contextualised so should only be awarded 1 mark.</i></p> <p><i>Loftus &amp; Palmer: If there is no reference to either speed and/or recalling seeing broken glass/ car crashes, the answer has not been fully contextualised so should only be awarded 1 mark.</i></p> <p><i>Baron-Cohen: If there is no reference to adults, the answer has not been fully contextualised so should only be awarded 1 mark.</i></p>

Question	Answer	Marks	Guidance
(b)	<p>Likely answers:</p> <p><u>Sperry:</u></p> <ul style="list-style-type: none"> <li>• All materials (visual and tactile) were presented to all participants using the same testing set/tachistoscope</li> <li>• All participants had one eye covered throughout the visual tests</li> <li>• All visual material was presented to either the LVF or RVF for 1/10 second or less</li> <li>• For all tactile tests participants were unable to see their hands</li> <li>• All the split-brain participants had undergone a commissurotomy to contain severe epileptic convulsions</li> <li>• Other appropriate answer.</li> </ul> <p><u>Loftus and Palmer:</u></p> <p>In Experiment 1:</p> <ul style="list-style-type: none"> <li>• All participants watched the <u>same</u> 7 films of <i>traffic accidents/car crashes</i></li> <li>• After watching each film all participants completed the <u>same</u> questionnaire with the exception of the verb in the critical question about vehicular speed</li> <li>• A different ordering of the films was presented to each group of participants (to prevent order effects).</li> </ul> <p>In Experiment 2:</p> <ul style="list-style-type: none"> <li>• All participants watched the same film clip of a <i>multiple car accident/crash</i></li> <li>• After watching the film all participants completed the same questionnaire with the exception of either the inclusion or exclusion of a question about vehicular speed</li> <li>• All participants returned a week after seeing the film and completing the first questionnaire</li> <li>• All participants answered the same set of questions including the critical one, "Did you see any broken glass?"</li> </ul>	[2]	<p><i>As the question asks for an outline, the response must go beyond the mere identification of an appropriate control.</i></p> <p><i>Responses should be for accuracy checked against the original study – especially those related to either the Loftus and Palmer or Baron-Cohen studies.</i></p>

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>• The critical question about broken glass appeared randomly in the list of 10 questions in the questionnaire</li> <li>• Other appropriate answer.</li> </ul> <p><u>Baron-Cohen:</u></p> <ul style="list-style-type: none"> <li>• All the autistic, TS and normal participants were age-matched</li> <li>• The sex ratio of participants in the autistics and TS groups was the same</li> <li>• All the autistic, TS and normal participants were within the normal IQ range</li> <li>• All participants completed the two control tasks: Gender Recognition Task and Basic Emotion Recognition Task (to check whether deficits on the Eyes task were due to factors other than lacking a TOM)</li> <li>• All autistic and TS participants were tested on Happé's Strange Stories (as a way to validate the Eyes Task)</li> <li>• In the Eyes Task the same 25 photographs of eyes were shown to all autistic, TS and normal participants</li> <li>• Each picture was shown to all autistic, TS and normal participants for 3 seconds</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer eg reference to either of the control groups.</p> <p><b>(1 mark)</b> Vague or partial answer eg the procedure was standardised, all participants did the same tests ie answer not contextualised; Sperry—participants were unable to see their hands; Loftus and Palmer—all participants watched the same film clips; Baron-Cohen— the same photos were used ie the mere identification of an appropriate control, not fully described or contextualised.</p> <p><b>(2 marks)</b> A clear, fully contextualised outline of an appropriate control such as the ones outlined above.</p>		

Question	Answer	Marks	Guidance
(c)	<p>Most likely answers/content from:</p> <p><u>Sperry:</u></p> <ul style="list-style-type: none"> <li>• Sperry used a specially designed apparatus – a tachistoscope – which exposes visual stimuli for very brief and carefully measured intervals. This apparatus allows for the lateralised testing of the left and right halves of the visual field, separately or together, and the right and left hands and legs with vision excluded. In testing vision, the participant sat at a table with one eye covered and centred his gaze on a designated fixation point on an upright translucent screen directly in front of him. Visual stimuli were then back-projected, via 35-millimetre transparencies arranged in a standard projector equipped with a shutter, at 1/10 of a second or less to either the right or left side or both sides of the central point on the screen. Below the screen there was a gap so that participants could reach objects which had been placed in a grab bag but not see his hands. Tactile tests included objects being put in either the right or left hand and the participant being asked to identify the objects; objects being put in either the right or left hand, then taken away and put in a grab bag and participants being asked to find the objects in the grab bag. In addition, visual stimuli were projected to either the right or left visual field or simultaneously to both visual fields via the tachistoscope and participants were asked to find what they had seen from the grab bag</li> <li>• Other appropriate description.</li> </ul> <p><u>Loftus and Palmer:</u></p> <ul style="list-style-type: none"> <li>• In Experiment 1 participants were shown seven clips of traffic accidents (segments taken from road safety films produced by the Evergreen Safety Council and the Seattle Police Department). The segments were between 5 and 30 seconds long. Following each film, participants were given a questionnaire which asked them to firstly give an account of what they had just seen and secondly to answer a series of specific questions about the accident just seen. The entire experiment lasted about an hour and a half and the films were presented in a different order for each group of participants. In Experiment 2 participants were shown a film depicting a multiple car accident. The film lasted less than one minute and the accident in the film lasted 4 seconds.</li> </ul>	[8]	<i>Not all information has to be included to gain full marks.</i>

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>• At the end of the film participants were given a questionnaire asking them to describe in their own words the accident they had just seen and then to answer a series of questions about the accident. A week later all participants returned and were asked to complete a further questionnaire relating to the accident</li> <li>• Other appropriate description.</li> </ul> <p><u>Baron-Cohen:</u></p> <ul style="list-style-type: none"> <li>• Participants were asked to attempt the Eyes Task, the Strange Stories task and two control tasks which were presented to each participant in a random order. In the Eyes Task, black and white magazine photographs of the eye region (midway along the nose to just above the eyebrow) of 25 different faces (male and female) were standardised to one size. Each picture was then shown for 3 seconds and participants were asked to make a forced choice between two mental state terms printed under each picture to describe the emotion being shown. The autistic and Tourette syndrome participants were also tested using Happé's (1994a) Strange Stories. The Strange Stories test comprises contextually embedded and realistic theory of mind tasks, including simple accounts of events related to the various motivations underlying everyday utterances that are not literally meant. The story-types comprised Double Bluff, Figure of Speech, Joke, Lie, Persuade, Pretend, Sarcasm and White Lie. There were also physical control stories which did not involve mental states, and were not social in nature. However, they did require participants to make global inferences that went beyond what was explicitly mentioned in the text. One control task was the Gender Recognition Task where each participant was asked to identify the gender of a person by looking at the same set of eyes as used in the Eyes Task. The other control task was the Basic Emotion Recognition Task (Emotion Task) in which each participant was asked to look at black and white photographs of whole faces displaying the basic emotions based on the Ekman categories and to make a forced choice between two basic emotions printed under each picture</li> <li>• Other appropriate description.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p>		

Question	Answer	Marks	Guidance
	<p><b>(1-3 marks)</b> Description of apparatus/materials is very basic and lacks detail and accuracy (eg two or three general statements are made, no fine details are included). Limited understanding is shown and expression is generally poor. <u>There is little, if any, contextualisation.</u></p> <p><b>(4-6 marks)</b> Description of apparatus/materials is mostly accurate and some fine details have been included. Understanding is evident. Expression and use of psychological terminology is reasonable. <u>There is some contextualisation.</u></p> <p><b>(7-8 marks)</b> Description of apparatus/materials is accurate, detailed and appropriate to the level and time allowed. Understanding, expression and use of psychological terminology are very good. <u>There are clear and appropriate links to the chosen study.</u></p>		
(d)	<p><u>Sperry:</u></p> <ul style="list-style-type: none"> <li>• When visual stimuli were presented to one visual field: <ul style="list-style-type: none"> <li>- An image shown and responded to in one visual field was only recognised again if it was presented to the same visual field</li> <li>- An image presented to the RVF (left hemisphere) could be described in speech and writing as normal</li> <li>- If an image was presented to the RVF (left hemisphere) the participant could point to a matching picture or object in a collection of pictures/objects with his right hand</li> <li>- If an image was presented to the LVF (right hemisphere) the participant either said he did not see anything or that there was just a flash of light on his left side / was unable to name it</li> <li>- If an image was presented to the LVF (right hemisphere) the participant could draw it (with eyes closed) with their left hand</li> <li>- If an image was presented to the LVF (right hemisphere) the participant could point to a matching picture or object in a collection of pictures/objects with his left hand, even though he had just insisted he had not seen anything</li> </ul> </li> </ul>	<b>[8]</b>	<p><i>Results should be checked carefully against the original study – not text books.</i></p> <p><i>Not all results have to be included to gain full marks.</i></p> <p><i>To be placed in the top band: For Sperry reference to both visual and tactile results must be made, for Loftus and Palmer reference to results from both experiments must be made, for Baron-Cohen reference to the results from at least 2 tests must be given.</i></p>

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>• When visual stimuli were presented to both visual fields:               <ul style="list-style-type: none"> <li>- If a \$ sign was flashed to the LVF at the same time as a ? sign was flashed to the RVF, the participant was able to draw the \$ sign with his left hand but verbally identified what had been presented to the RVF – the ? sign</li> <li>- When words were partly flashed to the LVF and partly to the RVF, letters were responded to separately eg the word ‘keycase’ – if ‘key’, was presented to the LVF and ‘case’ to the RVF, participant would (a) select a key from a collection of unseen objects with his left hand, (b) write the word ‘case’ with his right hand, (c) say the word ‘case’ if asked what word had been presented</li> </ul> </li> <li>• Tactile investigations:               <ul style="list-style-type: none"> <li>- If an object was placed in the right hand it could be named in speech and written with the right hand</li> <li>- If an object was placed in the left hand participants could only make wild guesses as to what they were holding and some seemed unaware they were holding anything. However if the same object was then placed in a grab bag with other objects, the participant was able to find the original object with his left hand</li> <li>- Participants were unable to retrieve an object with their right hand if it had been sensed first with the left hand</li> <li>- If two objects were placed simultaneously one in each hand and then hidden in a pile of objects, both hands were able to select their own object from the pile but ignored the other hand’s object</li> </ul> </li> <li>• Other appropriate findings.</li> </ul> <p><u>Loftus and Palmer:</u></p> <ul style="list-style-type: none"> <li>• Experiment 1:               <ul style="list-style-type: none"> <li>- The average speed estimates showed that the group with the verb ‘smashed’ in the critical question estimated a higher speed than the other groups – 40.8 / 40.5 mph</li> <li>- The average speed estimates showed that the group with the verb ‘contacted’ in the critical question estimated the lowest speed – 31.8 mph</li> </ul> </li> </ul>		

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>- The average speed estimates in mph for each of the verbs was as follows: 'smashed' = 40.5 / 40.8, 'collided' = 39.3, 'bumped' = 38.1, 'hit' = 34.0, 'contacted' = 31.8</li> <li>- The accuracy of speed estimates in the four staged crashes where the speed of the cars was known was not very good: Film 1: actual speed = 20 mph, estimated speed = 37.7 mph; Film 2: actual speed = 30 mph, estimated speed = 36.2 mph; Film 3: actual speed = 40 mph, estimated speed = 39.7 mph; Film 4: actual speed = 40 mph, estimated speed = 36.1 mph</li> <li>• Experiment 2: <ul style="list-style-type: none"> <li>- The results in relation to average speed estimates were the same as in Experiment 1 ie participants gave higher speed estimates in the 'smashed' condition (a mean of 10.46 mph) compared with the 'hit' condition where the mean average speed was 8.00 mph</li> <li>- When asked a week later whether they recalled seeing broken glass, participants in the 'smashed' condition were also more likely to think they had seen broken glass (16/50) compared with either the 'hit' (7/50) or 'control/no verb' condition (6/50)</li> <li>- A calculation of the probability of saying 'yes' or 'no' in relation to the 'smashed' and 'hit' conditions; the probability of saying 'yes' to seeing broken glass was 0.32 when the verb was 'smashed' compared with 0.14 when the verb was 'hit'</li> </ul> </li> <li>• Other appropriate findings.</li> </ul> <p><u>Baron-Cohen:</u></p> <ul style="list-style-type: none"> <li>• The Eyes Task: <ul style="list-style-type: none"> <li>- The mean score for adults with autism/AS was 16.3/25 whereas it was 20.3/25 for normal participants and 20.4/25 for those with Tourette syndrome</li> <li>- The range of correct answers was 13-23 for those with autism/AS, 16-25 for normal participants and 16-25 for those with Tourette syndrome / greater for those with autism/AS than either those with Tourette syndrome or normal adults</li> </ul> </li> </ul>		

Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>- Within the normal group males did less well with a mean score = 18.8/25 than females whose mean score was 21.8/25</li> <li>- Normal males performed significantly better with a mean average = 18.8/25 than those with autism/AS whose mean score was 16.3/25</li> <li>• The Strange Stories Task: <ul style="list-style-type: none"> <li>- No participants with Tourettes syndrome made any mistakes / participants with TS scored 100%, whereas those with autism/AS were significantly impaired</li> </ul> </li> <li>• The Gender Recognition Task: <ul style="list-style-type: none"> <li>- There were no significant differences between the groups</li> <li>- Those with autism/AS had a mean score of 24.1/25, those with Tourette syndrome had a mean score of 23.7/25 and normal adults had a mean score of 23.3/25</li> <li>- Within the normal group males performed better with a mean score of 24.0/25 compared to females with a mean score of 23.8/25.</li> </ul> </li> <li>• The Basic Emotion Recognition Task <ul style="list-style-type: none"> <li>- There were no significant differences between the groups</li> </ul> </li> <li>• Other appropriate findings.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-3 marks)</b> Description of results is very basic and lacks detail and accuracy (eg one or two general statements are made, no fine details are included). Limited understanding is shown and expression is generally poor. <u>There are few, if any links to the chosen study.</u></p> <p><b>(4-6 marks)</b> Description of the results is mostly accurate and some fine details have been included. Understanding is evident. Expression and use of psychological terminology is reasonable. <u>There are some appropriate links to the chosen study.</u></p> <p><b>(7-8 marks)</b> Description of results is accurate, detailed with and appropriate to the level and time allowed. Understanding, expression and use of psychological terminology are very good. <u>There are clear and appropriate links to the chosen study.</u></p>		

Question	Answer	Marks	Guidance
(e)	<p>Most likely answers:</p> <p><u>Sperry:</u></p> <p><u>Supporting generic explanation:</u></p> <ul style="list-style-type: none"> <li>• Some of the tasks, notably the tactile tasks, performed by the participants were ones that people often have to do and so the study has ecological validity and the findings show difficulties that split-brain patients may experience in their everyday lives</li> <li>• Other appropriate explanation.</li> </ul> <p><u>Supporting evidence:</u></p> <ul style="list-style-type: none"> <li>• For example, if an object was placed in the left hand participants could only make wild guesses as to what they were holding and some seemed unaware they were holding anything. This would therefore reflect difficulties such patients would experience in everyday life as they may easily be given/pick up something in their left hand without being able to see it. In which case they would not know what they were holding/would be unaware they were holding anything</li> <li>• Participants were unable to retrieve an object with their right hand if it had been sensed first with the left hand. This would reflect genuine difficulties split-brain patients may have in everyday life as normal people often have something in one hand, put it down/drop it and then try in pick it up with the other hand eg in sporting situations/in the kitchen. Such patients would not be able to do this</li> <li>• Participants were unable to retrieve an object with their right hand if it had been sensed first with the left hand. In everyday life such patients would be able to do this as they would use sight to compensate and so be able to pick the object up with the other hand</li> <li>• Other appropriate evidence.</li> </ul> <p><u>Challenging generic explanation:</u></p> <ul style="list-style-type: none"> <li>• In many ways this study lacks ecological validity. Many of the tasks performed by the split-brain patients separated visual and tactile information which in everyday life can be received simultaneously/the way information was presented to participants (via the tachistoscope) is not the way people normally</li> </ul>	[8]	

Question	Answer	Marks	Guidance
	<p>receive visual information and so the study's findings do not reflect how these people would respond in everyday life</p> <ul style="list-style-type: none"> <li>• Other appropriate explanation.</li> </ul> <p><u>Challenging evidence:</u></p> <ul style="list-style-type: none"> <li>• In this study, participants were unable to retrieve an object with their right hand if it had been sensed first with the left hand. However in everyday life this is not a problem because the presentation is normally accompanied by visual clues which allow the patient to recognise the object</li> <li>• In testing vision, the participant sat at a table with one eye covered and centred his gaze on a designated fixation point on an upright translucent screen directly in front of him. Visual stimuli were then back-projected, via 35-millimetre transparencies arranged in a standard projector equipped with a shutter, at 1/10 of a second or less to either the right or left side or both sides of the central point on the screen. Normally an individual does not have such a short time to identify material flashed to one visual field only, they have time to compensate by moving their eyes so the material is received by both visual fields allowing them to correctly identify the material</li> <li>• Other appropriate evidence.</li> </ul> <p><u>Loftus and Palmer:</u></p> <p><u>Supporting generic explanation:</u></p> <ul style="list-style-type: none"> <li>• Asking people to recall events is an everyday occurrence and so the study is high in ecological validity as it reflects real life situations / people are frequently asked leading questions when asked to recall events and so this study has high ecological validity</li> <li>• Other appropriate explanation.</li> </ul> <p><u>Supporting evidence:</u></p> <ul style="list-style-type: none"> <li>• In both experiments, following each film, participants were given a questionnaire which asked them to firstly give an account of what they had just seen. This is often what eyewitnesses are asked to do by the police when they are asked to give a statement</li> <li>• In Experiment 1 participants were asked a critical question about speed. For</li> </ul>		

Question	Answer	Marks	Guidance
	<p>each group of participants the verb in this question was different. The question was 'About how fast were the cars going when they smashed/collided/hit/bumped/contacted each other?' This was a leading question which influenced the speed estimates given by the participants with the most severe-sounding verb, 'smashed', eliciting the fastest speed estimates. Such questions are frequently asked both in court and in other situations when people are asked to recall events and the person asking the questions wants to influence the response given</p> <ul style="list-style-type: none"> <li>• Other appropriate evidence.</li> </ul> <p><u>Challenging generic explanation:</u></p> <ul style="list-style-type: none"> <li>• This study lacks ecological validity as in real life assessing eyewitness testimony is not so contrived. Other things are going on at the same time which may influence the evidence given and so the findings do not reflect real life</li> <li>• Other appropriate explanation.</li> </ul> <p><u>Challenging evidence:</u></p> <ul style="list-style-type: none"> <li>• Individuals are not usually asked to sit in a laboratory, focus their vision on a screen, watch seven clips of traffic accidents (segments taken from road safety films produced by the Evergreen Safety Council and the Seattle Police Department) which varied between 5 and 30 seconds long and then answer questions on the crashes to assess eyewitness accuracy</li> <li>• In Experiment 2 participants were shown a film of a multiple car accident. They were then given a questionnaire asking them to describe in their own words the accident they had just seen and then to answer a series of questions about the accident. A week later all participants returned and were asked to complete a further questionnaire relating to the accident. Although in real life there may be a gap between witnessing an incident and having to make a witness statement, the questioning does not usually take place in two distinct stages and so this study does not reflect what happens in real life.</li> </ul>		

Question	Answer	Marks	Guidance
	<p><u>Baron-Cohen:</u></p> <p><u>Supporting generic explanation:</u></p> <ul style="list-style-type: none"> <li>• This study has some ecological validity because people are, at times, asked to assess what they think other people are thinking/feeling and the fact that the autistic/AS participants found this hard reflects the problems that have already been shown by these individuals in everyday life</li> <li>• Other appropriate explanation.</li> </ul> <p><u>Supporting evidence:</u></p> <ul style="list-style-type: none"> <li>• In the Eyes Task participants were asked to make a forced choice between two mental state terms printed under each of the 25 photos of the eye region of males and females to describe the emotion being shown. This reflects what individuals, regardless of their mental state, are asked to do in real life when they are asked to describe people's faces as part of police interviewing techniques/in English exams or lessons when asked to describe characters in novels from sketches or pictures</li> <li>• In the Gender Recognition Task participants were asked to identify the gender of a person from photographs of the eye region. This again reflects real life as people are frequently asked whether the person they saw briefly was male or female</li> <li>• Other appropriate evidence.</li> </ul> <p><u>Challenging generic explanation:</u></p> <ul style="list-style-type: none"> <li>• This study lacks ecological validity because the tasks used to assess theory of mind were simpler than the real demands of a live social situation. There are other factors in a real situation which help individuals, of all mental states, to assess the gender and emotions of other individuals</li> <li>• Other appropriate explanation.</li> </ul>		

Question	Answer	Marks	Guidance
	<p><u>Challenging evidence:</u></p> <ul style="list-style-type: none"> <li>• Participants were shown 25 black and white photographs of the eye region of men and women and asked to make a forced choice between two mental states printed under each of the photos. In real life, one rarely has to make a judgement on emotional state based on photos of eyes alone. In addition one is rarely asked to make a forced choice decision on emotional state, one is usually asked an open question asking how one thinks the person was feeling</li> <li>• In the Gender Recognition Task participants were asked to identify the gender of a person from photographs of the eye region. This again lacks ecological validity because in real life one normally sees more than just the eye region of a person from which to assess their gender eg clothes, accessories etc</li> <li>• Other appropriate evidence.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-3 marks)</b> A mere description of ecological validity is made with <u>no/very weak link to the chosen study</u>/only a supporting statement/evidence is provided eg In Baron-Cohen, the Gender Recognition Task participants were asked to identify the gender of a person from photograph of the eye region. This reflects real life as people are frequently asked whether the person they saw briefly was male or female. In both of Loftus and Palmer's experiments, following each film, participants were given a questionnaire which asked them to firstly give an account of what they had just seen. This is often what eyewitnesses are asked to do by the police when they are asked to give a statement. / Only a challenging suggestion/evidence is provided eg in Sperry's study, participants were unable to retrieve an object with their right hand if it had been sensed first with the left hand. However in everyday life this is not a problem because the presentation is normally accompanied by visual clues which allow the patient to recognise the object / two very weak statements/pieces of evidence have been provided.</p> <p><b>(4 – 6 marks)</b> An explanation is provided showing good understanding. <u>More than one piece of EITHER supporting AND/OR challenging evidence, clearly linked to the chosen study</u> is provided, elaborating understanding.</p>		<p><i>To reach the top band both supporting and challenging evidence must be provided.</i></p>

Question	Answer	Marks	Guidance
	<p>Expression and use of psychological terminology is reasonable eg asking people to recall events is an everyday occurrence and so Loftus and Palmer's study is high in ecological validity as it reflects real life situations. In both of their experiments, following each film, participants were given a questionnaire which asked them to firstly give an account of what they had just seen. This is often what eyewitnesses are asked to do by the police when they are asked to give a statement / Baron-Cohen's study lacks ecological validity because the tasks used to assess theory of mind were simpler than the real demands of a live social situation. There are other factors in a real situation which help individuals, of all mental states, to assess the gender and emotions of other individuals. Participants were shown 25 black and white photographs of the eye region of men and women and asked to make a forced choice between two mental states printed under each of the photos. In real life, one rarely has to make a judgement on emotional state based on photos of eyes alone. In addition one is rarely asked to make a forced choice decision on emotional state, one is usually asked an open question asking how one thinks the person was feeling.</p> <p><b>(7-8 marks)</b> An explanation is provided showing good understanding. This is supported by appropriate supporting <b>AND</b> challenging evidence eg asking people to recall events is an everyday occurrence and so Loftus and Palmer's is high in ecological validity as it reflects real life situations. In both of their experiments, following each film, participants were given a questionnaire which asked them to firstly give an account of what they had just seen. This is often what eyewitnesses are asked to do by the police when they are asked to give a statement. On the other hand this study lacks ecological validity as in real life assessing eyewitness testimony is not so contrived. Other things are going on at the same time which may influence the evidence given and so the findings do not reflect real life. In Loftus and Palmer's second experiment, participants were shown a film of a multiple car accident. They were then given a questionnaire asking them to describe in their own words the accident they had just seen and then to answer a series of questions about the accident. A week later all participants returned and were asked to complete a further questionnaire relating to the accident. Although in real life there may be a gap between witnessing an incident and having to make a witness statement, the questioning does not usually take place in two distinct stages and so this study does not reflect what happens in real life.</p>		

Question	Answer	Marks	Guidance
(f)	<p><u>Changes:</u></p> <p>Answers are likely to refer to ways of:</p> <ul style="list-style-type: none"> <li>• Improving ecological validity</li> <li>• Reducing the chance that demand characteristics will influence results</li> <li>• Reducing the chance that socially desirable behaviour will influence results</li> <li>• Improving ethical issues</li> <li>• Improving the sample</li> <li>• Improving how the sample was gathered</li> <li>• Improving aspects of the method</li> <li>• Other appropriate suggestions should be considered and accepted.</li> </ul> <p><u>Evaluation:</u></p> <p>Answers are likely to refer to:</p> <ul style="list-style-type: none"> <li>• More natural/realistic behaviour will be recorded</li> <li>• Improved reliability</li> <li>• Improved generalisability</li> <li>• Improved usefulness</li> <li>• Changes in findings/results</li> <li>• Advantages/disadvantages of improving ethical issues</li> <li>• Sampling problems</li> <li>• Cost and time implications</li> <li>• Other appropriate suggestions should be considered and accepted.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> An improvement and its implications are very basic and lack detail eg improve EV by doing the study in a natural environment, use more participants to improve generalisability. Some understanding may be evident but the answer is unstructured, muddled and <u>not linked to the chosen study</u>.</p>	[8]	

Question			Answer	Marks	Guidance
			<p><b>(3-4 marks)</b> Description of an improvement, how it can be implemented and its implications is accurate. Detail is reasonable and the answer has some structure and organisation. There may be a few appropriate / weak links to the chosen study.</p> <p><b>(5-6 marks)</b> Description of an improvement showing some understanding of how it might be implemented and possible implications is accurate. There are some links to the chosen study. Expression and use of psychological terminology is reasonable.</p> <p><b>(7-8 marks)</b> Description of an improvement, how it might be implemented and possible implications of the improvements is accurate. Detail is appropriate to the level and time allowed. Understanding is good. The answer is structured and there are clear links to the study throughout.</p>		
			<b>Section B Total</b>	<b>36</b>	

## SECTION C

Generic guidance for Section C

*Answers throughout must be clearly linked and referenced to the selected approach*

Question	Answer	Marks	Guidance
17 (a)	<p>Likely answer:</p> <ul style="list-style-type: none"> <li>• All that is psychological is first physiological – that since the mind appears to reside in the brain, all thoughts, feelings and behaviours ultimately have a physiological cause</li> <li>• Other appropriate answer</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Assumption is identified. Description is basic and lacks detail though some understanding may be evident.</p> <p><b>(2 marks)</b> Description of assumption is accurate. Detail is appropriate and understanding is very good.</p>	<b>[2]</b>	<p><i>The assumption must be:</i></p> <ul style="list-style-type: none"> <li>• <i>Linked to the physiological approach</i></li> <li>• <i>Linked to behaviour.</i></li> </ul> <p><i>It is not necessary for the assumption to be unique to the physiological approach.</i></p>
(b)	<p>Likely answer may cover the following content:</p> <ul style="list-style-type: none"> <li>• As physiological psychology involves studying the effect of biological processes on behaviour, this approach could explain spatial memory in terms of differences in hippocampal structure. People who use navigational skills constantly in their work show differences in the hippocampus – the part of the brain that deals with these skills – compared to those who don't. This was shown in Maguire's study because there was an increased volume of grey matter in the right posterior hippocampus of taxi drivers compared to non taxi drivers. Furthermore, Maguire found a positive correlation between the length of time spent as a taxi driver and the volume of grey matter in the right posterior hippocampus, suggesting that changes in brain structure had occurred in response to environmental stimulation leaving taxi drivers with superior spatial memory ability</li> <li>• Other appropriate explanation.</li> </ul>	<b>[4]</b>	

Question	Answer	Marks	Guidance
	<p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> Description is generally accurate, but is basic and lacks detail. Some understanding and elaboration may be evident. Expression is generally poor.  <u>NB: A maximum of 1 mark can be gained for a generic explanation not linked to the named study/mere findings from Maguire’s study not linked to the approach.</u></p> <p><b>(3-4 marks)</b> Description is accurate. Detail is appropriate and understanding is good. Elaboration (specific detail or example) is evident. Expression and use of psychological terminology are good.</p>		
<b>(c)</b>	<p>Possible answers:</p> <p><b>Similarity:</b>  Eg both Maguire and Dement and Kleitman used technical equipment to gain their results. Maguire used MRI scans to measure hippocampal volume and Dement and Kleitman used an EEG machine to measure/identify sleep patterns.</p> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Similarity is identified, with little or no elaboration.</p> <p><b>(2 marks)</b> Description of similarity is basic and lacks detail. Some understanding may be evident. Expression is generally poor.</p> <p><b>(3 marks)</b> Description of similarity is accurate and has elaboration. Understanding is good.</p> <p><b>Difference:</b>  Eg the participants used by Maguire and Dement and Kleitman were drawn from different parts of the world. Maguire used London-based taxi drivers whereas Dement and Kleitman used participants drawn from America/the Chicago area (of America).</p> <p><b>(0 marks)</b> No or irrelevant answer.</p>	<b>[6]</b>	<p><i>[3+3]</i></p> <p><i>This question requires candidates to refer to the 3 physiological approach core studies i.e. Sperry, Maguire, Dement &amp; Kleitman</i></p> <p><i>Guidance for allocating marks:</i></p> <p><i>1 mark – An appropriate similarity/difference between two appropriate studies is merely identified.</i></p> <p><i>2 marks – An appropriate similarity/difference is identified and supported by <u>relevant contextualised</u> evidence from <u>one</u> appropriate study.</i></p> <p><i>3 marks – An appropriate similarity/difference is identified and supported by <u>relevant contextualised</u> evidence from <u>two</u> appropriate studies.</i></p>

Question	Answer	Marks	Guidance
	<p><b>(1 mark)</b> Difference is identified, with little or no elaboration.</p> <p><b>(2 marks)</b> Description of difference is basic and lacks detail. Some understanding may be evident. Expression is generally poor.</p> <p><b>(3 marks)</b> Description of difference is accurate and has elaboration. Understanding is good.</p>		<p><i>If the similarity/difference merely refers to the topic/focus of the study/ies a maximum of 1 mark can be awarded for each.</i></p>
<b>(d)</b>	<p><b>Strengths</b> may include:</p> <ul style="list-style-type: none"> <li>• It provides strong counter-arguments to the nurture side of the nature-nurture debate...</li> <li>• Its research methods are very reliable...</li> <li>• It uses scientific/objective methods which provide accurate unbiased data...</li> <li>• It is reductionist so therefore allows one to focus on one particular influence on human behaviour....</li> </ul> <p><b>Weaknesses</b> may include:</p> <ul style="list-style-type: none"> <li>• It is very reductionist as it only focuses on one influence on human behaviour...</li> <li>• Research methods have low ecological validity and therefore findings may not reflect behaviour in real life...</li> <li>• It raises particular ethical issues such as...</li> <li>• Because it relies heavily on the use of scientific equipment this is costly and requires specially trained personnel to operate machines....</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-3 marks)</b> There may be a few strengths and/or weaknesses which are peripheral to the question. Discussion and expression are poor with limited or no understanding. There is no supporting evidence.</p> <p><b>(4-6 marks)</b> There may be some strengths and/or weaknesses which are appropriate to the question. Discussion is reasonable with some understanding though expression may be limited. Sparse use of supporting examples.</p>	<b>[12]</b>	<p><i>This question requires candidates to refer to the 3 physiological approach core studies ie Sperry, Maguire, Dement &amp; Kleitman</i></p> <p><i>The candidate must make it clear why their suggestion is a strength/weakness.</i></p> <p><i>The supporting evidence must actually support the identified strength/weakness ie be appropriately contextualised.</i></p> <p><i>Study specific answers are not creditworthy.</i></p> <p><i>Responses that refer to methodology MUST be directly related to the strengths and weaknesses of the approach. Methodology specific responses are therefore NOT creditworthy.</i></p> <p><i>If only strengths/only weaknesses/only one strength and one weakness have been referred</i></p>

Question		Answer	Marks	Guidance
		<p><b>(7-9 marks)</b> There may be a range of strengths and weaknesses which are appropriate to the question. There may be an imbalance between the two. Discussion is reasonable and understanding is evident. Some use of supporting examples.</p> <p><b>(10-12 marks)</b> There is a good range of strengths (2 or more) and weaknesses (2 or more) which are appropriate to the question. Both strengths and weaknesses have been considered there is a balance between the two. Discussion is detailed showing sound understanding, clear expression and good literacy. Appropriate supporting evidence has been given throughout.</p>		<p><i>to a maximum of 6 marks can be awarded.</i></p> <p><u><i>Read through the mark bands carefully before allocating marks.</i></u></p>
18	(a)	<p>Likely answers:</p> <ul style="list-style-type: none"> <li>• Individuals differ in their behaviour and personal qualities so not everyone can be considered 'the average person'</li> <li>• Every individual is genetically unique and this uniqueness is displayed through their behaviour. So everyone behaves differently</li> <li>• All human characteristics can be measured and quantified. The measures gained from one person are different to those gathered from another</li> <li>• All psychological characteristics are inherited and as everyone inherits different characteristics, everyone is different and unique</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Assumption is identified. Description is basic and lacks detail though some understanding may be evident.</p> <p><b>(2 marks)</b> Description of assumption is accurate. Detail is appropriate and understanding is very good.</p>	[2]	<p><i>The assumption must be:</i></p> <ul style="list-style-type: none"> <li>• <i>Linked to the individual differences approach</i></li> <li>• <i>Linked to behaviour.</i></li> </ul> <p><i>It is not necessary for the assumption to be unique to the individual differences approach.</i></p>

Question	Answer	Marks	Guidance
(b)	<p>Likely answer may cover the following content:</p> <ul style="list-style-type: none"> <li>• As the individual differences approach studies the differences both between and within people, the approach can explain multiple personality disorder. People with multiple personalities show both qualitative and quantitative differences in their individual personalities. These differences are distinct, identifiable and measurable. This was shown by Thigpen and Cleckley in their attempt to establish that Eve White had more than one personality. They found that ...(reference to differences in either the psychological tests and/or the qualitative personality features)... which therefore suggests that not only is everyone different, but that even one person can possess a variety of different personalities</li> <li>• Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-2 marks)</b> Description is generally accurate, but is basic and lacks detail. Some understanding and elaboration may be evident. Expression is generally poor.  <u>NB: A maximum of 1 mark can be gained for a generic explanation not linked to the named study/mere findings of Thigpen and Cleckley's study not linked to the approach.</u></p> <p><b>(3-4 marks)</b> Description is accurate. Detail is appropriate and understanding is good. Elaboration (specific detail or example) is evident. Expression and use of psychological terminology are good.</p>	[4]	

Question	Answer	Marks	Guidance
(c)	<p>Possible answers:</p> <p><b>Similarity:</b></p> <ul style="list-style-type: none"> <li>Eg a similarity between two studies that take the individual differences approach is that both the Rosenhan study 'sane in insane places' and Griffiths' study into fruit machine gambling were conducted in natural environments. The Rosenhan study looked at the behaviour of staff in 12 psychiatric wards in 12 real hospitals across various states in America and Griffiths' study was conducted in a real gambling arcade in Exeter, Devon, England</li> <li>Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Similarity is identified, with little or no elaboration.</p> <p><b>(2 marks)</b> Description of similarity is basic and lacks detail. Some understanding may be evident. Expression is generally poor.</p> <p><b>(3 marks)</b> Description of similarity is accurate and has elaboration. Understanding is good.</p> <p><b>Difference:</b></p> <ul style="list-style-type: none"> <li>Eg a difference between two studies that take the individual differences approach is the sample size. Thigpen and Cleckley in their study into multiple personality disorder only studied one individual – Eve White, whereas Rosenhan's sample was much larger as it consisted of any of the staff on duty during the time of the study in the 12 hospitals selected for the investigation</li> <li>Other appropriate answer.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1 mark)</b> Difference is identified, with little or no elaboration.</p> <p><b>(2 marks)</b> Description of difference is basic and lacks detail. Some understanding may be evident. Expression is generally poor.</p> <p><b>(3 marks)</b> Description of difference is accurate and has elaboration. Understanding is good.</p>	<b>[6]</b>	<p><i>[3+3]</i></p> <p><i>This question requires candidates to refer to the 3 individual differences approach core studies ie Thigpen &amp; Cleckley, Rosenhan, Griffiths.</i></p> <p><i>Guidance for allocating marks:</i></p> <p><i>1 mark – An appropriate similarity/difference between two appropriate studies is merely identified.</i></p> <p><i>2 marks – An appropriate similarity/difference is identified and supported by <u>relevant contextualised</u> evidence from <u>one</u> appropriate study.</i></p> <p><i>3 marks – An appropriate similarity/difference is identified and supported by <u>relevant contextualised</u> evidence from <u>two</u> appropriate studies.</i></p> <p><i>If the similarity/difference merely refers to the topic/focus of the study/ies a maximum of 1 mark can be awarded.</i></p>

Question	Answer	Marks	Guidance
(d)	<p>Discuss strengths and weaknesses of the individual differences approach using examples from any of the core studies that take this approach.</p> <p><b>Strengths</b> may include:</p> <ul style="list-style-type: none"> <li>• Allows psychologists to learn more about human behaviours because all behaviours, not just average ones are studied</li> <li>• Allows psychologists to measure differences between individuals in qualities such as personality, intelligence, memory etc</li> <li>• Allows one to identify differences between individuals, so comparisons can be made</li> <li>• Allows for a variety of methods to be used so findings can be checked for reliability.</li> </ul> <p><b>Weaknesses</b> may include:</p> <ul style="list-style-type: none"> <li>• Techniques used are not fully objective and therefore open to bias</li> <li>• It creates divisions between people because individuals are identified as being 'different'</li> <li>• It is difficult to define and measure individual qualities such as personality, intelligence etc</li> <li>• Ethical concerns may be raised</li> <li>• Because samples are usually small in number, findings are not generalisable and therefore of limited usefulness.</li> </ul> <p><b>(0 marks)</b> No or irrelevant answer.</p> <p><b>(1-3 marks)</b> There may be a few strengths and/or weaknesses which are peripheral to the question. Discussion and expression are poor with limited or no understanding. There is no supporting evidence.</p> <p><b>(4-6 marks)</b> There may be some strengths and/or weaknesses which are appropriate to the question. Discussion is reasonable with some understanding though expression may be limited. Sparse use of supporting examples.</p> <p><b>(7-9 marks)</b> There may be a range of strengths and weaknesses which are appropriate to the question. There may be an imbalance between the two. Discussion is reasonable and understanding is evident. Some use of supporting examples.</p>	<b>[12]</b>	<p><i>This question requires candidates to refer to the 3 individual differences approach core studies ie Thigpen &amp; Cleckley, Rosenhan, Griffiths.</i></p> <p><i>The candidate must make it clear why their suggestion is a strength/weakness.</i></p> <p><i>The supporting evidence must actually support the identified strength/weakness ie be appropriately contextualised.</i></p> <p><i>Study specific answers are NOT creditworthy.</i></p> <p><i>Responses that refer to methodology MUST be directly related to the strengths and weaknesses of the approach. Methodology specific responses are therefore NOT creditworthy.</i></p> <p><i>If only strengths/only weaknesses/only one strength and one weakness have been referred to a maximum of 6 marks can be awarded</i></p> <p><u><i>Read through the mark bands carefully before allocating marks.</i></u></p>

Question	Answer	Marks	Guidance
	<b>(10-12 marks)</b> There is a good range of strengths (2 or more) and weaknesses (2 or more) which are appropriate to the question. Both strengths and weaknesses have been considered, there is a balance between the two. Discussion is detailed showing sound understanding, clear expression and good literacy. Appropriate supporting evidence has been given throughout.		
	<b>Section C Total</b>	<b>24</b>	

**OCR (Oxford Cambridge and RSA Examinations)**  
1 Hills Road  
Cambridge  
CB1 2EU

**OCR Customer Contact Centre**

**Education and Learning**

Telephone: 01223 553998

Facsimile: 01223 552627

Email: [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

**[www.ocr.org.uk](http://www.ocr.org.uk)**

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

**Oxford Cambridge and RSA Examinations**  
is a Company Limited by Guarantee  
Registered in England  
Registered Office; 1 Hills Road, Cambridge, CB1 2EU  
Registered Company Number: 3484466  
OCR is an exempt Charity

**OCR (Oxford Cambridge and RSA Examinations)**  
Head office  
Telephone: 01223 552552  
Facsimile: 01223 552553

© OCR 2013

