GCE

Psychology

Advanced Subsidiary GCE

Unit **G542:** Core Studies

Mark Scheme for June 2012

Annotations used in the detailed Mark Scheme (to include abbreviations and subject-specific conventions)

Annotation	Meaning
AE	Attempts evaluation
BOD	Benefit of doubt
CONT	Context
✖	Cross
EVAL	Evaluation
▭	Extendable horizontal line
∿	Expandable horizontal wavy line
IRRL	Significant amount of material which doesn't answer the question
NAQ	Not answered question
✔	Tick
✔+	Development of point
∧	Omission mark
❓	Unclear
RHS	Good use of research/supporting evidence

Generic guidance for Section A
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	Any two from: • The Eyes Task: Participants were asked to look at 25 black and white photographs of eyes and select from two mental states printed under each picture. • (Happé's) Strange Stories Task: Participants had to listen to a selection of stories and then answer questions asking them to judge either the mental state or the physical state of the characters in the stories. • Gender Recognition Task: Participants had to identify the gender of a person from black and white photographs of <u>eyes.</u> • Basic Emotion Recognition Task /Emotion Task: Participants had to identify basic emotions from black and white photographs of <u>whole faces.</u> • Other appropriate descriptions **0 marks** – No or irrelevant answer e.g. The Sally-Anne Test **1 mark** – Partial or vague answer e.g. mere identification of a task / very inaccurate outline such as: in the Eyes Task participants had to look at photographs of eyes. **2 marks** – Correct identification and accurate outline of a task as outlined above eg the eyes task-participants were asked to look at 25 photos of eyes and suggest the emotion shown	2+2 4	No other suggestions can be credited. Happé need not be mentioned.

Question			Answer	Marks	Guidance
2			Most likely answer may include: • Because previous research has shown that context-appropriate responses can occur without comprehension, for this study a) behavioural concordance measure was devised which required Kanzi to verify his utterances on 9 of 10 occasions. Only spontaneous utterances were considered appropriate candidates for behavioural verification. • Other appropriate description. **0 marks** – No or irrelevant answer. **1-2 marks –** Partial or vague answer e.g. utterances had to be produced correctly and spontaneously more than once, if Kanzi made regular correct use of a symbol it would be added to a list. **3-4 marks –** An increasingly accurate answer with a good description of the full criterion outlined above e.g. utterances had to be produced correctly and spontaneously on a predetermined/set number of occasions to be verified.	4	This criterion can be found in the original study (page 217).
3	(a)		• The sample in the first experiment comprised of 45 students **0 marks** – No or incorrect answer. **1 mark** – Partial or vague answer e.g. 45 participants/ students **2 marks** – Accurate <u>description</u> of sample 45 students	2	Number of participants must be accurate.

Question			Answer	Marks	Guidance
	(b)		Most likely answers may include: • Biased sample as all were students who may not be representative of the population as a whole. • Students may have better memories than other members of the population so the <u>results</u> are not generalisable to the population as a whole. • Students may not be used to estimating vehicular speed so <u>results</u> are not generalisable to the population as a whole. • (45 is) a small sample size so conclusions in relation to the accuracy of eyewitness testimony/ the ability to accurately estimate vehicular speed should be treated with caution. • Other appropriate answer. **0 marks** – No or incorrect answer. **1 mark** – Partial or vague answer e.g. biased sample, all students, not representative, can't generalise results i.e. mere identification of an appropriate weakness not contextualised. **2 marks** – Appropriate limitation identified, supported by an explanation and contextualised, as outlined above.	2	Reference to generalisability must relate to results/ findings/ outcomes . Representativeness relates to sample.

Question			Answer	Marks	Guidance
4	(a)		Most likely answers may include: • Through observations (of Little Hans) / conversations / interviews/questions (with Little Hans) conducted by Hans' father and <u>sent to Freud via letter /correspondence</u>. • Through the interview between Freud and Little Hans • Other appropriate answer. **0 marks** – No or irrelevant answer e.g. by telephone, use of video **1 mark** – Partial or vague answer e.g. e.g. through observations / correspondence, by Little Hans' father. **2 marks** – Accurate description of how the data was collected as outlined above.	2	If candidates refer to observations (of Little Hans) by his father / conversations between Hans and his father, to gain 2 marks they <u>must</u> also include: sent to Freud via letter / correspondence/reported back to Freud.
	(b)		Most likely answers may include: • As Freud was a third party he may have misinterpreted the information passed to him by Little Hans' father. • Freud wanted evidence to support his theory of infant sexuality and so may have interpreted the data in ways that would support his theory. • Because there was no objective evidence to support the qualitative data so interpretations were subjective. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. because he wanted evidence to support his theory i.e. answer not contextualised. **2 marks** – Clear, appropriate, contextualised suggestion as to why there may have been a problem with the way Freud interpreted the data.	2	

Question			Answer	Marks	Guidance
5	(a)		Most likely answers may include: • Piaget said that children's cognitive abilities develop with age. Results from this study support this suggestion because they showed that the older (8-year-old) children performed better in the conservation tasks for number, mass and volume than the younger (5-year-old) children. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. because older children did better/conserved better than younger children (no link to Piaget's theory). **2 marks** – Clear, accurate description of how findings from this study support Piaget's theory, as outlined above.	2	
	(b)		Most likely answers may include: • Piaget said that children in the pre-operational stage of cognitive development (18 months to about 7 years) are unable to conserve. However results from this study showed that children as young as 5 years old were able to conserve number, mass and volume. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. because children as young as 5 were able to conserve (no link to Piaget's theory), because children in the pre-operational stage were able to conserve. **2 marks** – Clear, accurate description of how findings from this study challenge Piaget's theory, as outlined above.	2	

Question			Answer	Marks	Guidance
6			Most likely explanation may include: • All participants (experimental and control) were then taken to an anteroom that contained relatively attractive toys; a fire engine, a locomotive, a jet fighter, a cable car, a colourful spinning top and a doll set complete with wardrobe, doll carriage and baby crib. The experimenter explained that the toys were for the participant to play with but, as soon as the participant became sufficiently involved with the play material (usually in about 2 minutes), the experimenter remarked that these were her very best toys, that she did not let just anyone play with them, and that she had decided to reserve these toys for the other children. The experimenter and the participant then entered the adjoining experimental room. • Other appropriate description. **0 marks** – No or irrelevant answer. **1-2 marks –** Vague or partial answer eg children's aggression was aroused by having toys taken away from them. **3-4 marks –** An increasingly accurate and detailed explanation of what happened in the second stage eg the children's aggression was aroused. They were given attractive toys including a fire engine, a jet fighter and a doll set to play with. After a few minutes the experimenter took the toys away saying they were her best toys and she wanted to save them for the other children.	4	

Question			Answer	Marks	Guidance
7	(a)		Most likely answers may include: • Hemisphere deconnection is an extensive midline section of the cerebral commisures of the brain. • Hemisphere deconnection is a division of the corpus callosum in its entirety, plus division also of the smaller anterior and hippocampal commisures, plus on occasions, a division of the massa intermedia. • Hemisphere deconnection involves cutting through the cerebral commisures which connect the left and right hemispheres of the brain. • Hemisphere deconnection is the separation of the two sides of the cerebral cortex in the brain. • Other appropriate description. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. splitting a person's brain in half i.e. no reference to cerebral commisures/corpus callosum/right and left hemispheres/two hemispheres/cerebral cortex. **2 marks** – Clear, accurate description, mentioning appropriate parts of the brain, as outlined above.	2	

Question			Answer	Marks	Guidance
	(b)		Most likely answer: • Material presented to the left visual field is received and processed by the right hemisphere of the brain. This hemisphere is non-lingual/does not control speech, and so a 'split-brain' patient could not describe in speech what they had seen. • Other appropriate answer. **0 marks –** No or irrelevant answer. **1mark** – Partial or vague answer e.g. because the right hemisphere does not control speech, because material presented to the left visual field is processed by the right hemisphere. **2 marks** – Clear, accurate explanation, including reference to both left visual field and right hemisphere, as outlined above.	2	Any reference to 'eye' rather than visual field cannot be credited

Question			Answer	Marks	Guidance
8			Any two from the following most likely answers may include: • Participants woken in REM sleep were more likely to report dreaming (152/191) than participants woken in NREM sleep (11/160). • More dreams were reported by participants when woken in REM sleep (152) than NREM (11). • The length of REM activity was proportional to the number of words used to describe the dream. • Participants woken in REM were mainly able to estimate correctly how long they had been dreaming (45/51 correct estimates when woken after 5 minutes of REM, 47/60 for 15 minutes of REM). • There was a strong association between the patterns of REM and dream content – supported by an appropriate example from the original study. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. more dreams recalled in REM i.e. no comparison made, there was an association between REM and dream content i.e. no supporting example. **2 marks** – Fully contextualised, accurate description of evidence indicating a link between REM and dreaming, as outlined above.	2+2 4	Figures not required for full marks.

Question			Answer	Marks	Guidance
9	(a)		Most likely answers may include: • The hippocampus has an important role in facilitating spatial memory in the form of navigation. • The hippocampus is the region of the brain that deals with spatial memory and navigation. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. the hippocampus is important for spatial memory i.e. no link to navigation. **2 marks** – A clear outline of the importance of the hippocampus mentioning both spatial awareness and navigation, as outlined above.	2	For 2 marks both spatial memory and navigation (or other appropriate terms) must be mentioned as these were the focus of this study.
	(b)		Most likely answers may include: • Because taxi drivers have extensive experience of spatial navigation, scans of their brain were compared with scans of non-taxi drivers who do not have the same spatial navigation experience to see if there were any structural hippocampal differences. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. because taxi drivers have extensive spatial navigation experience i.e. no reference to non-taxi drivers/no comparison made, to see if there are any structural differences in the hippocampi of taxi and non-taxi drivers **2 marks** – A clear description referring to why both taxi and non-taxi drivers were used, as outlined above.	2	'For comparison/as a control group' on its own is not creditworthy.

Question	Answer	Marks	Guidance
10	Most likely answers: • The victims acted out their roles in a standardised way so all participants were exposed to the same behaviour to make it fair. • Each scenario was acted out between the same stations on the 8th Avenue IND to maintain consistency and limit the influence of other environmental factors. • The victims were always male so gender differences did not influence helping behaviour. • The female observers always took seats outside the critical area so differences in proximity to the incident did not influence helping behaviour / data recording. • Other appropriate answer. **0 marks –** No or irrelevant answer **1-2 marks –** Vague or partial answer e.g. mere description of one contextualised control e.g. the victim was always male, no explanation of how the feature acted as a control. **3-4 marks –** An increasingly accurate and detailed description of one control with a clear explanation of **how** the feature was a control, as outlined above.	4	

Question			Answer	Marks	Guidance
11	(a)		Most likely answers may include: • Prisoners were held in lockable cells, as they would be in a real prison, so represented real life. • The guards had separate quarters as they would do in real life. • The guards (and prisoners) were given special uniforms to wear as they would in real life. • There was a set prison timetable as there would be in a real prison. • There was a set of prison rules which prisoners had to obey as they would in real prisons. • Guards had keys to all doors as they would in a real prison. • There was an isolation cell as there would be in a real prison. • Guards could give rewards and punishments as they can in a real prison. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. there was an isolation cell, prisoners were put in cells i.e. no explanation as to why this made the study high in EV, the setting was made to look as near to a real prison as possible. **2 marks** – Clear, accurate and elaborated outline of one way the study was high in EV, as outlined above.	2	NB suggestions may need to be checked for accuracy against the original study. For 2 marks the outline must make it clear why the suggestion made the study high in EV.

Question			Answer	Marks	Guidance
	(b)		Most likely answers may include: • The guards were not real guards and had gone through no specialist training as they would do in real life. • The prisoners were not real prisoners as they had not committed any crimes which they would have to have done in real life. • The prison was not a real prison, as it was a specially designed environment constructed inside Elstree Studios in London. • No physical violence was allowed which does not represent life inside a real prison where physical violence, racism and homosexuality are frequently found. • Prisoners reported one at a time at the prison, unescorted by a policeman/other official figure **,** which would not happen in real life. • The whole study was filmed by the BBC which would not happen in real life (though CCTV is used in prisons). • Both prisoners and guards underwent daily psychometric and biological tests which would not occur in a real prison. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. no physical violence allowed, the study was filmed i.e. no explanation as to why this made the study low in EV. **2 marks** – Clear, accurate and elaborated outline of one way in which the study was low in EV, as outlined above.	2	NB: suggestions may need to be checked for accuracy against the original study. For 2 marks the outline must make it clear why the suggestion made the study low in EV.

Question	Answer	Marks	Guidance
12	Most likely answers may include: • Participants were observed to sweat/ tremble/ stutter/ bite their lips/ groan/ dig their fingernails into their flesh which indicated nervousness. • A regular sign of tension was the occurrence of nervous laughing fits. • Full blown, uncontrollable seizures were observed for three participants. • On one occasion a participant suffered such a severe seizure that the experiment had to be stopped. • After the maximum shocks had been delivered and the experiment ended, many obedient participants heaved sighs of relief, mopped their brows, rubbed their fingers over their eyes, or nervously fumbled cigarettes. • Other observations such as turning to the experimenter for advice • Comments made by the teacher such as, 'well it's not fair to shock the guy …' • Other appropriate answer. **0 marks** – No or irrelevant answer eg a piece of quantitative data. **1 mark** – Partial or vague answer eg participants had seizures, participants showed stress i.e. mere identification of a piece of qualitative data gathered. **2 marks** – Full, clear, elaborated outline of an appropriate piece of qualitative data, such as one of the ones outlined above.	2+2 4	Other suggestions should be checked for accuracy against the original study.

Question			Answer	Marks	Guidance
13			Most likely answers may include: • The letter received by Thigpen and Cleckely indicated that the first part of the letter had been written by Eve White/one person whereas the handwriting of the last paragraph suggested the work of a child/a different person. • The results of the (Wechsler-Bellevue) Intelligence Scale/IQ Test which showed Eve White to have an IQ (of 110) and Eve Black an IQ (of 104)/ Eve White to have a higher IQ than Eve Black. • The results of the (Wechsler) Memory Scale/Memory Test which showed Eve White to have a superior memory/memory (far) above her IQ and Eve Black to have a memory on the same level as her IQ/ which showed Eve White to have a superior memory to Eve Black. • The results of the Rorschach/Inkblot Test which showed Eve Black to be far healthier than Eve White. • The results of the projective personality tests which showed Eve White to have a repressive personality and Eve Black a regressive personality. • The results of the projective tests which showed Eve White to have anxious, obsessive compulsive traits and Eve Black to have hysterical tendencies. • The results of the EEG test which showed Eve White/Jane to have alpha rhythms between 10½ to 11½ cycles per second and Eve Black between 12 to 13 cycles per second/ showed Eve White's/Jane's alpha rhythms to be slower than those of Eve Black. • Reference to subjective observations e.g. Eve White was seen as demure and retiring whereas Eve Black was childish and egocentric. • Other appropriate answer.	2+2 4	For 2 marks, the difference between two <u>named</u> personalities must be clear except for the evidence relating to the letter.

Question			Answer	Marks	Guidance
			0 marks – No or irrelevant answer **1 mark** – Partial or vague answer e.g. the letter which showed different handwriting, the IQ tests showed different scores, results of the personality tests i.e. mere identification of an appropriate piece of evidence, answer not contextualised. **2 marks** – Clear, accurate, contextualised piece of evidence supporting the claim for MPD, as outlined above.		
14			Answers are likely to refer to: • Consent – as participants volunteered to take part, they all gave their consent. • Consent – for the study to be conducted was given by the arcade's manager. • Confidentiality – was maintained as no gambler's or non-gambler's identities were published. • Debrief – participants were debriefed with those in the thinking aloud condition being asked if they would like to hear a playback of their recording. • Protection of participants – one participant who was diagnosed as a pathological gambler was met at a later date to ensure the experience had not made his gambling behaviour worse. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. mere identification of an appropriate issue e.g. consent was gained, confidentiality was maintained i.e. no contextualisation. **2 marks** – Clear, fully contextualised outline of an appropriate ethical guideline, as outlined above.	2+2 4	
15	(a)		Most likely answer: • After calling the hospital for an appointment, the	2	

Question			Answer	Marks	Guidance
			pseudopatient arrived at the admissions office complaining that he had been hearing voices, which (although often unclear) said, 'empty', 'hollow', and 'thud'. (The voices were unfamiliar and were of the same sex as the pseudopatient). • Other appropriate description. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. they rang the hospital/ reported hearing voices/ they reported hearing voices that said 'empty', 'hollow' and 'thud'. **2 marks** – Clear, accurate, fully contextualised description e.g. they rang the hospital and complained of hearing voices.		

Question			Answer	Marks	Guidance
	(b)		One from the following most likely answers: • Because the reported symptoms were very similar to existential symptoms so medical staff thought the pseudopatients were 'insane'. • Because medical staff were not sure whether the pseudopatients were really insane and so erred on the side of caution. • Because physicians are more likely to call a healthy person sick than a sick person healthy as it is better/safer to suspect illness than health. • One would not expect a sane/healthy person to make an appointment at a hospital and on arrival complain of hearing voices. • Because the symptoms reported by the pseudopatients led doctors to believe they had schizophrenia/mentally ill/insane. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Partial or vague answer e.g. because doctors thought they were insane, because doctors wanted to play safe. **2 marks** – Clear, accurate, fully contextualised suggestion, as outlined above.	2	Any appropriate suggestion should be credited in accordance with the mark scheme.
			Section A total	**60**	

Generic guidance for Section B
Responses to all parts of this question must be clearly and accurately related to the chosen study.

Question			Answer	Marks	Guidance
16	(a)		Most likely answers: Maguire: • To demonstrate that the hippocampus is the region of the brain associated with spatial memory and navigation. • To discover whether changes in the brain could be detected in those with extensive navigational experience. • To see whether the brain is susceptible to plastic change in response to environmental stimulation. • Other appropriate answer. Piliavin: • To observe the effect of the following variables on helping behaviour: type of victim (drunk or with a cane), race of victim (black or white), whether people were more likely to help in an emergency situation if they have seen someone else displaying helping behaviour (modelling), the relationship of group size (diffusion of responsibility). • Other appropriate answer. Savage-Rumbaugh: • To show pygmy chimpanzees do not need explicit training to form referential symbol/object associations. • To show pygmy chimpanzees acquired symbol acquisition through observation. • To show pygmy chimpanzees can readily identify	2	

Question	Answer	Marks	Guidance
	lexigrams upon hearing the spoken words. • To show that pygmy chimpanzees have the ability to spontaneously develop symbol acquisition. • To study human language capabilities in pygmy chimpanzees. • To study the language acquisition of pygmy chimpanzees compared with 'common' chimpanzees. • Other appropriate answer. **0 marks** – No or irrelevant answer e.g. statement of an hypothesis such as 'passengers will be more willing to help a drunk victim than a victim with a cane'. **1 mark** – Partial or vague answer i.e. the aim has no elaboration or is not fully contextualised e.g. Maguire: to investigate changes in the brain, Piliavin: to investigate helping behaviour Savage-Rumbaugh: to investigate language acquisition in chimpanzees. **2 marks** – Outline of the aim is clear and fully contextualised, as outlined above.		

Question			Answer	Marks	Guidance
	(b)		<u>Sample:</u> Detail from:- <u>Maguire:</u> 16 right-handed, male, licensed London taxi drivers, aged between 32-62 years, mean age 44 years. All had been licensed London taxi drivers for more than 1.5 years (mean time as a taxi driver = 14.3 years, range = 1.5 – 42 years). The average time spent training to be a taxi driver before passing the licensing tests fully (i.e. time on The Knowledge) was 2 years (range 10 months – 3.5 years; some trained continuously, some part-time). All of the taxi drivers had healthy general medical, neurological and psychiatric profiles. These were matched by health, mean age, age range, gender and right-handedness with 50 non-taxi drivers drawn from a structural MRI scan database at the same unit where the taxi drivers were scanned. 16 of these were then precisely age-matched and used as the control group in the final part of the study. <u>Piliavin:</u> Around 4,450 men and women who travelled on the 8th Avenue IND in New York City, weekdays, between the hours of 11.00 am and 3.00 pm during the period from April 15 to June 26, 1968. The racial composition of a typical train, which travelled through Harlem to the Bronx was about 45% black and 55% white. The mean number of people per car during these hours was 43, the mean number of people in the 'critical area', in which the incident took place, was 8.5. <u>Savage-Rumbaugh:</u> 2 (Pan paniscus) pygmy chimpanzees – Kanzi and Mulika , and 2 (Pan troglodytes) common chimpanzees – Austin and Sherman. Austin and Sherman were reared in a language-using environment by people from 1975-1983. Kanzi and Mulika were reared in a similar environment	3+3 6	This requires more than a mere identification of features of the sample so examiners should read the whole description and award marks dependent on the quality of the response.

Question	Answer	Marks	Guidance
	but with less access to their mother. The principal participant was Kanzi, a young male pygmy chimpanzee who was 4 years of age at the time the study was completed. Kanzi was born in captivity at the Yerkes Regional Primate Research Centre on October 28, 1980 and was assigned to the Language Research Centre at 6 months of age. His younger sister, Mulika, born December 22, 1983 was also a participant. Austin and Sherman were assigned to the Language Project at 1½ and 2½ years of age respectively, and were therefore aged 9 and 10 respectively when the study was completed.		
	0 marks – No or irrelevant answer. **1 mark** – Sample identified with little or no elaboration, not contextualised/no mention of study e.g. (Maguire) 16 taxi drivers and 16 non-taxi drivers, (Piliavin) travellers on the New York Subway, (Savage-Rumbaugh) pygmy and common chimpanzees. **2 marks** – Description of selected sample is basic and lacks detail. Some understanding is evident though expression is poor e.g. Maguire – 16 right-handed male taxi drivers and 16 right-handed male non-taxi drivers, Piliavin – around 4½ thousand men and women who travelled on the New York subway, Savage-Rumbaugh – 2 pygmy chimpanzees called Kanzi and Mulika and 2 common chimpanzees called Austin and Sherman. **3 marks** – Description of selected sample is accurate, elaborated and fully contextualised. Understanding is good with numbers, ages, genders, target population etc i.e. at least three of the features mentioned above.		
	<u>Weakness:</u> Most likely answers will refer to:-		Reference to generalisability must relate to results/ findings/ outcomes Representativeness relates to sample

Question	Answer	Marks	Guidance
	<u>Maguire:</u> • Sample size small (16) so valid conclusions cannot be drawn in relation to structural differences in the hippocampi of taxi and non-taxi drivers. • Sample was all drawn from London, so results cannot be generalised to taxi and non-taxi drivers from other areas/countries whose hippocampal structure may be different. • All participants were male/right-handed so results cannot be generalised to female/left-handed taxi and non-taxi drivers whose hippocampal structure may be different. • Other appropriate answer. <u>Piliavin:</u> • Sample was drawn from passengers/individuals on a subway so results cannot be generalised to passengers/individuals on other forms of transport/in other situations whose helping behaviour may be different. • Sample was drawn from the New York area, so results cannot be generalised to individuals from other areas/countries whose helping behaviour may be different. • Participants were passengers between 11.00 am and 3.00pm between April 15 to June 26, 1968, so results cannot be generalised to passengers who travel at other times/between other dates, whose helping behaviour may be different. • Other appropriate answer.		

Question			Answer	Marks	Guidance
			<u>Savage-Rumbaugh:</u> • All 4 chimpanzees were reared in a language environment so results cannot be generalised to chimpanzees reared in other environments whose aptitude for symbol/language acquisition may be different. • Sample size small (2 pygmy chimpanzees, 2 common chimpanzees) so valid conclusions cannot be drawn in relation to the aptitude for symbol/language acquisition of all pygmy and common chimpanzees. • Kanzi and Mulika were exposed to language in a different way to Sherman and Austin and so valid comparisons cannot be made regarding their symbol/language acquisition. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Peripherally relevant weakness is suggested with little or no elaboration, appropriate weakness is identified **but not linked** to chosen study. **2 marks** – Appropriate weakness is suggested but description is basic, lacks detail and is only loosely linked to chosen study. **3 marks** – Appropriate weakness is suggested. The description is accurate, elaborated and fully contextualised, as outlined above.		

Question			Answer	Marks	Guidance
	(c)		Most likely answers/content from: Maguire: Structural MRI scans were obtained with a 2.0 Tesla Vision system for all participants – both taxi and non-taxi drivers. Two image analysis methods were then used to analyse the data/scans: (i) VBM (voxel-based morphometry) was used to examine whether morphological changes associated with navigation experience were detectable in the healthy human brain of the 16 taxi drivers and 50 non-taxi drivers. It is an automatic procedure which, with Statistical Parametric Mapping, identifies differences in the density of grey matter in different parts of the brain; (ii) pixel counting was then used to analyse the data from the 16 taxi drivers and 16 precisely age-matched non-taxi drivers so the hippocampal volume could be calculated. The images produced by the MRI scans were analysed by one person who counted the pixels in each slice. This person was blind to whether a participant was a taxi driver or a non-taxi driver, and also blind to the VBM findings. Comparisons were then made between the findings from the scans of the taxi drivers and those of non-taxi drivers. • Other appropriate description. Piliavin: On each trial a team of four Columbia General Studies students, two males and two females, boarded the train using different doors. Four different teams, whose members always worked together, were used to collect data for 103 trials. Each team varied the location of the experimental car from trial to trial. The female confederates took seats outside the critical area and recorded data as unobtrusively as possible for the duration of the ride, while the male model and victim	6	Note the question asks for an OUTLINE, so not all details are required to reach the top band. Read the question in its entirety before decided what mark to award.

Question			Answer	Marks	Guidance
			remained standing. The victim always stood next to a pole in the centre of the critical area. As the train passed the first station (approximately 70 seconds after departing) the victim staggered forward and collapsed. Until receiving help, the victim remained supine on the floor looking at the ceiling. If the victim received no assistance by the time the train slowed to a stop, the model helped him to his feet. At the stop, the team disembarked and waited separately until other riders had left the station. They then proceeded to another platform to board a train going in the opposite direction for the next trial. From 6 to 8 trials were run on a given day. All trials on a given day were in the same 'victim condition'. On 38 trials the victim smelled of liquor and carried a liquor bottle wrapped tightly in a brown bag (drunk condition), while on the remaining 65 trials they appeared sober and carried a black cane (cane condition). In all other aspects victims dressed and behaved identically in both conditions. Each victim participated in drunk and cane conditions. There were four model different conditions used across both victim conditions: critical area early (model stood in the critical area and helped the victim 70 seconds after collapse), critical area – late (model stood in the critical area and helped 150 seconds after collapse), adjacent area – early (model stood in adjacent area and helped 70 seconds after collapse), adjacent area – late (model stood in the adjacent area and helped 150 seconds after collapse). When the model provided assistance, he raised the victim to a sitting position and stayed with him for the remainder of the trial. On each trial one observer noted the race, sex and location of every rider seated or standing in the critical area. In addition, she counted the total number of individuals in the car and the total number of individuals		

Question	Answer	Marks	Guidance
	who came to the victim's assistance. She also recorded the race, sex and location of every helper. A second observer coded the race, sex and location of all persons in the adjacent area. She also recorded the latency of the first helper's arrival after the victim had fallen and, on appropriate trials, the latency of the first helper's arrival after the programmed model had arrived. Both observers recorded comments spontaneously made by nearby passengers and attempted to elicit comments from a rider sitting next to them. The data gathered was then collated and analysed. • Other appropriate description. Savage-Rumbaugh: The communication system used by Kanzi and Mulika was a visual symbol system. This consists of geometric symbols (lexigrams) that brighten when touched. When indoors the lexigrams were displayed for Kanzi and Mulika on an electronic keyboard linked to a computer so symbol usage could be automatically recorded. When outdoors, Kanzi and Mulika used a 'pointing board' which was a thin laminated panel containing photographs of all of the lexigrams. A speech synthesiser was added to Kanzi's keyboard after evidence was gathered which indicated he comprehended spoken English words. Sherman and Austin used keyboards that were attached by extension cords to a computer. These cords made it possible to move their keyboards from room to room. 'Pointing boards' were not used by Austin and Sherman because they proved unsuccessful, and they did not use the keyboards outside the laboratory. Spoken English and gestures were used with all 4 chimpanzees. The spoken English accompanied most lexigram communications produced by the experimenters. Most gestures were		

Question	Answer	Marks	Guidance
	spontaneous and informal. Sherman and Austin were introduced to lexigrams through a language learning programme whereas Kanzi and Mulika were exposed to lexigrams through observation. All 4 chimpanzees were in environments where people they were with used the visual system throughout the day for a wide variety of communications between themselves and the chimpanzees. They emphasised their activities vocally and visually by pointing to appropriate lexigrams. During the warmer months of the year, food was dispersed daily to 17 named locations within a 55-acre forest that surrounds the Language Research Centre. No food was available in the laboratory during this time so the chimpanzees had to travel from place to place during the day with their human companions to obtain it. The name of each site matched the food that was placed there. To get food the chimpanzees had to go to the correct place. At first Kanzi was shown photographs of food items and asked to indicate which he wanted to eat, and then taken to the right location. Once Kanzi used the keyboard/pointing board to announce where he wanted to go, the researchers slowly ceased using the photographs. When indoors, Kanzi and Mulika were asked, throughout the day, to help in a variety of activities such as changing the bed sheets, doing the laundry and preparing food. Games, toys, videos etc were made available for the chimpanzees to use and their human companions were on hand to play with/interact with them. All lexigrams used by Kanzi, Mulika and their companions were automatically recorded by the computer-monitored keyboards when indoors. In the woods, lexigram utterances were recorded by hand and entered into the computer at the end of the day along with contextual notes. Each utterance was classified as		

Question	Answer	Marks	Guidance
	(i) correct/incorrect (ii) spontaneous/imitated/structured. For an utterance to be listed as 'acquired', Kanzi and Mulika had to spontaneously produce the utterance correctly on 9/10 occasions. In addition to recording language-use behaviours as they occurred spontaneously, Kanzi and Mulika were also tested informally, in everyday situations, using lexigrams they already knew. Kanzi was then tested formally when he was between 46 and 47 months of age in all the items in his vocabulary with Mulika being similarly tested when she was between 18 and 21 months of age. They were tested by (a) being shown photographs and asked to select from a set of three alternatives, the proper lexigram for that photograph (b) listening to a spoken English word and asked to select the appropriate photograph from a set of three alternatives (c) listening to a spoken English word and asked to select the appropriate lexigram from a set of three alternatives (d) – (c) was repeated but the word was produced by a synthesiser. Formal tests of the same sort (with the exception of the synthesised speech) were also administered to Sherman and Austin. Also, because Sherman and Austin were unable to select photographs in response to spoken English words, they were not tested on their ability to pair lexigrams with spoken English words. Sherman and Austin were rewarded for correct choices with food but Kanzi and Mulika were not. The data gathered was collated and analysed so comparisons in symbol usage and acquisition could be made not just between pygmy and common chimpanzees but also between all four chimpanzees as individuals.		A MAXIMUM of <u>2 marks</u> can be gained if the answer is not clearly linked to the chosen study.

Question	Answer	Marks	Guidance
	• Other appropriate description. **0 marks** – No or irrelevant answer. **1-2 marks** – Outline is very basic and lacks detail and accuracy (e.g. a couple of general statements are made). Some understanding may be evident. Expression is poor with few, if any, psychological terms. Answer is not linked to chosen study e.g. Maguire – no link to taxi and non-taxi drivers, Piliavin – no link to (New York) subway/train, Savage-Rumbaugh – no link to chimpanzees/Kanzi, Mulika, Sherman, Austin. **3-4 marks** – Outline is mainly accurate with some details missing. A few fine details may be present and understanding is evident. Expression and use of psychological terminology is reasonable and the answer is linked to the chosen study e.g. Savage-Rumbaugh – a visual symbol system of lexigrams was used by researchers to record the symbol acquisition of Kanzi, Mulika, Sherman and Austin. When outdoors a pointing board was used, when indoors the keyboard was electronic. Correct lexigram usage was documented/noted/recorded. All four chimpanzees were also tested formally on their symbol acquisition. **5-6 marks** – Outline has increasing accuracy and detail. Detail is appropriate for the level and time allowed. Understanding, expression and use of psychological terminology are good. There are clear and appropriate links to the chosen study e.g. Savage-Rumbaugh – a visual symbol system of lexigrams was used by researchers to record the symbol acquisition of Kanzi, Mulika, Sherman and Austin. When outdoors researchers placed food at different locations and Kanzi and Mulika pointed/touched the keyboard/pointing board to indicate which food item they wanted before going to the location. When inside the chimpanzees were asked,		

Question			Answer	Marks	Guidance
			through lexigram usage, speech and gestures, to help in various everyday activities. Correct lexigram usage was documented/noted/recorded. All four chimpanzees were also tested formally on their symbol acquisition. Data collected was collated and analysed.		

Question			Answer	Marks	Guidance

	(d)		Most likely answers will refer to:
			
			Maguire:
			
			VBM:
			
			- Significantly increased grey matter volume was found in the brains of taxi drivers compared to those of non-taxi drivers in 2 brain regions, namely the right and left hippocampi. No differences were observed elsewhere in the brain.
			- In the taxi drivers the increased grey matter volume was found in the right and left posterior hippocampi whereas in the non-taxi drivers, there was relatively more grey matter volume in the right and left anterior hippocampi.
			
			Pixel counting:
			
			- Total hippocampal volumes and intercranial volume did not differ significantly between taxi and non-taxi drivers.
			- Significant regional differences were however found –
			   - Non-taxi drivers had greater anterior right hippocampal volume than taxi drivers.
			   - The body of the hippocampus was larger on the right than the left in the brains of non-taxi drivers compared to those of taxi drivers.
			   - Taxi drivers had a greater posterior hippocampal volume than non-taxi drivers.
				6	Examiners are reminded they should be prepared to check the original studies to verify results.

Question	Answer	Marks	Guidance
	Changes with navigational experience: • The length of time spent as a taxi driver correlated positively with the volume of the right posterior hippocampus. • The length of time spent as a taxi driver correlated negatively with the volume of the anterior hippocampus. * Other appropriate answers. <u>Piliavin:</u> • The cane victim received spontaneous help 95% of the time (62/65 trials) whereas the drunk victim was spontaneously helped 50% of the time (19/38 trials). • On 49/81 (60%) of the trials when the victim was given help, the help was given by 2 or more helpers. • On 21/103 (20%) of the trials (with and without a model) 34 people left the critical area after the victim collapsed. • Help was slower to be forthcoming in the drunk condition: only 17% of the drunk victims were helped before the model stepped in, whereas 87% of the cane victims were helped before the model acted. • The median latency for cane trials (non-model condition) was 5 seconds whereas it was 109 seconds for drunk trials. • 90% of first helpers were males. • Black victims received help less quickly than white victims, especially in the drunk condition. • In the drunk condition there was slight 'same race'		

Question	Answer	Marks	Guidance
	effect - whites were more likely to help whites than blacks. • More comments from subway passengers were obtained in the drunk condition than in the cane condition. • Most of the comments were made on the trials where no help was given within the first 70 seconds. • The more passengers who were in the immediate vicinity of the victim the more likely help was to be given. • Other appropriate answers. Savage-Rumbaugh: • Kanzi started using lexigrams aged 2½ years. • Mulika started using lexigrams aged 12 months. • Between 6 to 16 months of age both Kanzi and Mulika spontaneously began to use gestures to communicate preferred directions of travel and actions they wished to have performed. • Similar gestures were observed in Sherman and Austin when they were older (between 2 and 4 years). • Kanzi and Mulika's gestures were often more explicit than those of Sherman and Austin. • In total, during the period covered by the study, Kanzi acquired 46 words and Mulika 37. • In total, over the period covered by the study, Kanzi produced 2,540 non-imitative symbol/word combinations, plus 265 which were prompted or partially imitated. • About 15% of utterances made by Kanzi and Mulika were imitative and 80% spontaneous.		

Question	Answer	Marks	Guidance
	• Kanzi and Mulika performed better than Austin and Sherman on the formal tests. • Other appropriate answers. **0 marks** – No or irrelevant answer. **1-2 marks** – Outline of findings is very basic and lacks detail and accuracy (e.g. one or two general statements are identified). Some understanding may be evident. Expression is poor with few, if any, psychological terms. The answer is not linked to the chosen study. **3-4 marks** – Outline is mainly accurate with some details missing. Fine details may occasionally be present and understanding is evident. Expression and use of psychological terminology is reasonable and the answer is clearly linked to the chosen study e.g. Maguire - taxi drivers had a greater grey matter volume in the right and left posterior hippocampi than non-taxi drivers. There was a positive correlation between the time spent as a taxi driver and the volume of the posterior hippocampus. **5-6 marks** – Outline has increasing accuracy and detail with several fine details included. Detail is appropriate to the level and time allowed. Understanding, expression and use of psychological terminology is good. There are clear and appropriate links to the chosen study, as outlined above e.g. Piliavin – in 62/65 trials (95% of the time) the cane victim received spontaneous help from the passengers on the train, whereas in only 19/38 (50% of the time) the drunk victim was helped spontaneously. 90% of the first helpers were males. Help was given more slowly by passengers to the drunk victim than the cane victim.		A MAXIMUM of 2 marks can be gained if only ONE result is considered and/or the answer is not clearly linked to the chosen study.

Question			Answer	Marks	Guidance
	(e)		Answers may include:	6	

Answers may include:

- A (generic) explanation of the term 'reliable'.
- Suggestion(s)/evidence as to why the results can be considered reliable.
- Suggestion(s)/evidence as to why the results may not be considered reliable.

Generic explanation of reliability:

Most likely answers:

- For a research finding to be reliable, it must be shown to exist on successive investigations under the same conditions.
- If a finding can be repeated, it is described as being reliable.
- If research results are consistent, they are considered reliable.
- Reliability refers to the ability of a measure to give the same results each time it is used.
- Other appropriate explanation.

In relation to Maguire:

Supporting suggestion(s)/evidence:

- MRI scans use precise technology to provide objective scientific data.
- MRI scanners can be used repeatedly in the same way and therefore give accurate, consistent data.
- VBM is a scientific technique which automatically enables every point of the brain to be examined in an objective and unbiased way.

Question	Answer	Marks	Guidance
	• All the pixel counting was conducted by the same person who was experienced in the technique. • The pixel counter was 'blind' to participants' identity as taxi drivers or non-taxi drivers and the VBM findings. • Other appropriate answer. Challenging suggestion(s)/evidence: • The pixel counting was only conducted by one individual who although experienced in the technique, may have made errors. No-one checked the results. • Only 24 photographic slices of each brain were used in the final analysis, possibly not enough to ensure reliability. • Measurements between slices may have been inaccurate so the final calculations may not have been correct. No-one checked. • Other appropriate answer. In relation to Piliavin: Supporting suggestion(s)/evidence: • Because a total of 103 trials were conducted with similar results found in each trial condition results can be considered reliable. • Because the 2 observers in each team always recorded findings for the same coding categories, interpretation of the categories will have been consistent so results can be considered reliable e.g. the same observer in each team recorded race, sex and location of every rider seated or standing in the critical area.		

Question	Answer	Marks	Guidance
	• Because both observers recorded comments spontaneously made by nearby passengers, findings could be checked for reliability. Challenging suggestion(s)/evidence: • Because each of the 2 observers in each trial were recording different data, no checks were made to ensure inter-rater reliability e.g. timings of latency of first helper were not checked for accuracy. • Because there were 4 teams working separately application of the codings of one team may have differed from that of another e.g. gender is not always apparent! • The situation, may on occasions, have resulted in the observers' views being blocked leaving them unable to see the incident clearly so they could not record /missed key information, making findings unreliable. • Other appropriate answer. In relation to Savage-Rumbaugh: Supporting suggestion(s)/evidence: • When the chimpanzees used a lexigram indoors, a computer automatically and objectively recorded symbol usage, eliminating the possibility of human error making findings unreliable. • In order to establish reliability of the outdoor observations, one block of 4½ hours of observations made in real time was compared to another set off observations made from a videotape of the same 4½ hours. There was 100% agreement with regard to the lexigrams used.		

Question	Answer	Marks	Guidance
	- Formal tests were conducted on all 4 chimpanzees to test all the words in their vocabulary. This was done to check reliability of findings by ensuring that performance was not due to contextual cues or inadvertent glances given by either the environment or the researchers. - Other appropriate answer. <u>Challenging suggestion(s)/evidence:</u> - The researchers classified each utterance as (i) correct/incorrect (ii) spontaneous/imitated/structured. Misunderstanding/inconsistent application of these classifications may mean results are unreliable. - When outdoors the chimpanzees' symbol usage was made by hand and entered into the computer at the end of each day. Some symbol usage may, on occasions, have been missed/not recorded/not entered into the computer correctly making results unreliable. - Other appropriate answer. **0 marks** – No or irrelevant answer. **1-2 marks** – Reference is merely made to the term reliability with no link to the chosen study eg reliability refers to the ability of a measure to give the same result each time. **3-4 marks** – An explanation of the term reliability is provided showing understanding, supported by one piece of evidence clearly linked to the chosen study. Expression and use of psychological terminology is reasonable e.g. the term reliability refers to how consistent any measurement is. For example in Savage-Rumbaugh, reliability of the outdoor observations made		

Question	Answer	Marks	Guidance
	of the chimpanzees was established by one block of 4½ hours of real time observations being compared with a video recording of the same 4½ hours. There was 100% agreement with regard the lexigrams used showing the findings were consistent and therefore reliable. **5-6 marks** – An explanation of reliability is provided showing **good** understanding. This is supported by **appropriate** suggestions/evidence clearly linked to the chosen study showing why/why not the findings may be considered reliable/ unreliable i.e. a discussion has taken place with possibly a conclusion reached e.g. for research findings to be reliable, they must be shown to exist on successive occasions under the same conditions. For example Maguire used VBM to examine morphological changes in the hippocampus of the brain associated with navigation experience. VBM is an objective and automatic procedure that allows every point of the brain to be considered in an unbiased and therefore reliable way. On the other hand, because the pixel counting was only conducted by one individual and not checked by another person, errors may have been made, making the findings unreliable. However, as the pixel counter as was experienced in the technique many errors are unlikely and overall the findings can therefore be considered reliable.		

Question			Answer	Marks	Guidance
	(f)		Changes: Answers are likely to refer to ways of: • Improving ecological validity. • Reducing the chance that demand characteristics will influence results. • Reducing the chance that socially desirable behaviour will influence results. • Improving ethical issues. • Improving the sample. • Improving how the sample was gathered. • Improving aspects of the method. • Other appropriate suggestions should be considered and accepted. Evaluation of changes: Answers are likely to refer to: • More natural/realistic behaviour will be recorded. • Improved reliability. • Improved generalisability. • Improved usefulness. • Changes in findings/results. • Advantages/disadvantages of improving ethical issues. • Sampling problems. • Cost and time implications. • Other appropriate suggestions should be considered and accepted.	10	If there is no link to the chosen study, no more than 2 marks can be awarded. If only one change is suggested and evaluated the candidate cannot gain more than 6 marks.

Question			Answer	Marks	Guidance
			0 marks – No or irrelevant answer. **1-2 marks –** Description of change(s) are peripheral to the study. Description is basic and lacks detail. Evaluation may be just discernible. Understanding is limited, the answer is unstructured, muddled, probably list-like and not linked to the chosen study. **3-4 marks** – Description of change(s) is appropriate to the study. Description is basic and lacks details with some understanding, though expression may be limited. Some evaluation may be evident. **5-6 marks** – Description of change(s) is appropriate to the study. Description is reasonable with some understanding though expression may be limited. Some evaluation is evident. There may be an imbalance between description and evaluation. **7-8 marks** – Description of two or more changes is appropriate to the study. Description is detailed with understanding and clear expression. Evaluation is reasonably effective and informed. There may be a balance between description and evaluation. The answer has some structure and organisation. **9-10 marks** – Description of two or more changes is appropriate to the study. Description is detailed with good understanding and clear expression. Evaluation is effective and well informed. There is a good balance between description and evaluation. The answer is competently structured and organised. Answer is mostly grammatically correct with occasional spelling errors.		
			Section B total	**36**	

Generic guidance for Section C
Answers throughout must be clearly linked and referenced to the selected approach.

Question			Answer	Marks	Guidance
17	(a)		**THE INDIVIDUAL DIFFERENCES APPROACH** Likely answers: • Individuals differ in their behaviour and personal qualities so not everyone can be considered 'the average person'. • Every individual is genetically unique and this uniqueness is displayed through their behaviour. So everyone behaves differently. • All human characteristics can be measured and quantified .The measures gained from one person are different to those gathered from another and are apparent in their behaviour. • All psychological characteristics are inherited and as everyone inherits different characteristics, everyone is different and unique and these are apparent in their behaviour. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Assumption is identified. Description is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **2 marks** – Description of assumption is accurate. Detail is appropriate and understanding is very good. Fine details may be added. Expression and use of psychological terminology is good.	2	The assumption must be: • Linked to the individual differences approach. • Linked to behaviour It is not necessary for the assumption to be unique to the Individual differences approach.

Question			Answer	Marks	Guidance
	(b)		Answers are likely to refer to EITHER the Thigpen and Cleckley AND/OR Rosenhan study , which may cover the following content: • The individual differences approach could explain abnormality because although the approach assumes everyone is different, it is generally held that people demonstrating or reporting behaviour deemed atypical/outside the norm accepted by any given society are considered abnormal. This was shown in the Rosenhan study when the pseudopatients reported hearing voices that said, 'empty', 'hollow' and 'thud'. This is not behaviour reported by the average person and was therefore considered abnormal. Using criterion set down in the DSM IV which categorises certain behaviours to be outside the continuum of normality these pseudopatients were diagnosed as either schizophrenics or manic depressive – types of insanity/abnormality. Their individual differences meant they were labelled as abnormal. • The individual differences approach could explain abnormality because although the approach assumes everyone is different, it is generally held that people demonstrating or reporting behaviour deemed atypical/outside the norm accepted by any given society are considered abnormal. This was shown in the Thigpen and Cleckley study when, as a result of headaches and blackouts during which Eve White displayed behaviour that was out of character and for which she had no memory, she was diagnosed as having more than one distinct identity or personality states – an illness known as MPD/DID. The average person is not characterised by having more than one personality which	4	Although candidates are most likely to refer to Thigpen and Cleckley and/or Rosenhan, a clear well described generic answer or reference to Griffiths / addiction as an abnormality should be credited. Any study that clearly shows individual/dispositional differences, if justified by the candidate, should be credited. For a full answer the description should be supported by either a specific detail from a known study and/or an appropriate generic example.

Question			Answer	Marks	Guidance
			functions more or less independently of each other. Eve White's individual differences led her to be labelled as abnormal. • Other appropriate answer. **0 marks –** No or irrelevant answer. **1-2 marks –** Description is generally accurate, but is basic and lacks detail. Some understanding and/or elaboration may be evident. Expression is generally poor. **3-4 marks –** Description is accurate. Detail is appropriate and understanding is good. Elaboration (specific detail or example) is evident. Expression and use of psychological terminology is sound.		

Question			Answer	Marks	Guidance
	(c)		<u>Likely studies for comparison include:</u> Thigpen and Cleckley, Rosenhan, Griffiths. <u>Similarity:</u> Answers are likely to refer to sample, methodology, type of data, ethics. **0 marks** – No or irrelevant answer. **1 mark** – Similarity is identified, with little or no elaboration. **2 marks** – Description of similarity is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **3 marks** – Description of similarity is accurate and has elaboration. Understanding is good. <u>Difference:</u> Answers are likely to refer to sample, methodology, type of data, ethics. **0 marks** – No or irrelevant answer. **1 mark** – Difference is identified, with little or no elaboration, topic of each study is merely stated. **2 marks** – Description of difference is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **3 marks** – Description of difference is accurate and has elaboration. Understanding is good.	3+3 6	Guidance for allocating marks: 1 mark – An appropriate similarity / difference between two appropriate studies is merely identified. 2 marks – An appropriate similarity / difference is identified and supported by <u>relevant</u> evidence from <u>one</u> appropriate study / an appropriate similarity / difference is described but not identified. 3 marks – An appropriate similarity / difference is identified and supported by <u>relevant</u> evidence from <u>two</u> appropriate studies

Question	Answer	Marks	Guidance
(d)	<u>Strengths may include:</u> • Allows psychologists to learn more about human behaviours because all behaviours, not just average ones, are studied. • Allows psychologists to measure differences between individuals in qualities such as personality, intelligence, memory etc. • Studies are often high in ecological validity as they often take place in real life environments. • Allows both qualitative and quantitative data to be gathered which provides rich, in-depth data about the behaviour under consideration. <u>Weaknesses may include:</u> • Techniques used are often not fully objective and therefore open to bias making the validity of results questionable. • It creates divisions between people because individuals are identified as being 'different'. • It is difficult to define and measure individual qualities such as personality, intelligence etc. • Ethical concerns, generic to the approach, may be raised (but must be explained). **0 marks** – No or irrelevant answer. **1-3 marks** – There may be some strengths or weaknesses which are appropriate or peripheral to the question, or there may be an imbalance between the two. Discussion is poor with limited or no understanding. Expression is poor. Analysis is sparse and argument may be just discernible. Sparse or no use of supporting examples.	12	The candidate must make it clear why their suggestion is a strength / weakness e.g. studies are often high in ecological validity <u>because they often take place in real life situations.</u> The supporting evidence must actually support the identified strength / weakness i.e. be appropriately contextualised. <u>Read through the mark bands carefully before allocating marks.</u> Study specific answers are not creditworthy. Responses that refer to methodology MUST be directly related to the strengths and weaknesses of the approach. Methodology specific responses are therefore NOT creditworthy. Responses with only one appropriate strength and one appropriate weakness/only strengths or weaknesses can gain a maximum of 6 marks.

Question	Answer	Marks	Guidance
	4-6 marks – There may be some strengths and weaknesses which are appropriate to the question, or there may be an imbalance between the two. Discussion is reasonable with some understanding though expression may be limited. Analysis is effective sometimes and argument limited. Sparse use of supporting examples. **7-9 marks** – There may be a range of strengths and weaknesses which are appropriate to the question, or there may be an imbalance between the two. Discussion is good with some understanding and good expression. Analysis is reasonably effective and argument is informed. Some use of supporting examples. **10-12 marks** – There is a good range of strengths (2 or more) and weaknesses (2 or more) which are appropriate to the question. There is a good balance between the two. Discussion is detailed with good understanding and clear expression. Analysis is effective and argument well informed. Appropriate use of supporting examples. The answer is competently structured and organised. Answer is mostly grammatically correct with occasional spelling errors.		

Question			Answer	Marks	Guidance
18	(a)		**THE DEVELOPMENTAL APPROACH** Likely answer: • It assumes there are clearly identifiable systematic changes that occur in an individual's behaviour from conception to death. • Other appropriate answer. **0 marks** – No or irrelevant answer. **1 mark** – Assumption is identified. Description is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **2 marks** – Description of assumption is accurate. Detail is appropriate and understanding is very good. Fine details may be added. Expression and use of psychological terminology is good	2	The assumption must be: • Linked to the developmental approach. • Linked to behaviour. It is not necessary for the assumption to be unique to the developmental approach.
	(b)		Likely answer: • As children <u>grow</u>, through social learning processes, they learn to be aggressive..........(developed in relation to aggression and development). • Other appropriate answer. **0 marks** – No or irrelevant answer **1–2 marks** – Description is generally accurate, but is basic and lacks detail. Some understanding and/or elaboration may be evident. Expression is generally poor. **3–4 marks** – Description is accurate. Detail is appropriate and understanding is good. Elaboration (specific detail or example) is evident. Expression and use of psychological terminology is sound.	4	Although candidates are most likely to refer to Bandura, a clear well described generic answer should be credited. For a full answer the description should be supported by either a specific detail from a known study and/or an appropriate generic example.

Question			Answer	Marks	Guidance
	(c)		<u>Likely studies for comparison include:</u> Samuel and Bryant, Freud, Bandura. <u>Similarity:</u> Answers are likely to refer to sample, methodology, type of data, ethics. **0 marks** – No or irrelevant answer. **1 mark** – Similarity is identified, with little or no elaboration. **2 marks** – Description of similarity is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **3 marks** – Description of similarity is accurate and has elaboration. Understanding is good. <u>Difference:</u> Answers are likely to refer to sample, methodology, type of data, ethics. **0 marks** – No or irrelevant answer. **1 mark** – Difference is identified, with little or no elaboration, topic of each study is merely stated. **2 marks** – Description of difference is basic and lacks detail. Some understanding may be evident. Expression is generally poor. **3 marks** – Description of difference is accurate and has elaboration. Understanding is good.	3+3 6	Guidance for allocating marks: 1 mark – An appropriate similarity / difference between two appropriate studies is merely identified. 2 marks –An appropriate similarity / difference is identified and supported by <u>relevant</u> evidence from <u>one</u> appropriate study / an appropriate similarity / difference is described but not identified. 3 marks – An appropriate similarity / difference is identified and supported by <u>relevant</u> evidence from <u>two</u> appropriate studies

Question			Answer	Marks	Guidance
	(d)		Strengths may include: • Offers an explanation on why individuals of differing ages demonstrate different intellectual abilities, social skills and emotional responses…. • It adds to the continuing nature versus nurture debate…. • It often offers the opportunity for the participant(s) to be studied in their natural environment.... Weaknesses may include: • Many proposals in relation to age-related development have been shown to be too rigid..... • Much developmental research is conducted in a laboratory setting so ecological validity is low and findings may not relate to real life..... **0 marks** – No or irrelevant answer. **1-3 marks** – There may be some strengths or weaknesses which are appropriate or peripheral to the question, or there may be an imbalance between the two. Discussion is poor with limited or no understanding. Expression is poor. Analysis is sparse and argument may be just discernible. Sparse or no use of supporting examples. **4-6 marks** – There may be some strengths and weaknesses which are appropriate to the question, or there may be an imbalance between the two. Discussion is reasonable with some understanding though expression may be limited. Analysis is effective sometimes and argument limited. Sparse use of supporting examples. **7-9 marks** – There may be a range of strengths and weaknesses which are appropriate to the question, or there may be an imbalance between the two. Discussion is good with some understanding and good expression. Analysis is reasonably effective and argument is	12	The candidate must make it clear why their suggestion is a strength / weakness eg A strength of the developmental approach is that it has useful applications <u>because it shows how individuals of differing ages demonstrate difference behaviours</u> The supporting evidence must actually support the identified strength / weakness i.e. be appropriately contextualised. <u>Read through the mark bands carefully before allocating marks.</u> Study specific answers are not creditworthy. Responses that refer to methodology MUST be directly related to the strengths and weaknesses of the approach. Methodology specific responses are therefore not creditworthy. Responses with only one appropriate strength and one appropriate weakness/only strengths or only weaknesses can only gain 6 marks.

Question			Answer	Marks	Guidance
			informed. Some use of supporting examples. **10-12 marks** – There is a good range of strengths (2 or more) and weaknesses (2 or more) which are appropriate to the question. There is a good balance between the two. Discussion is detailed with good understanding and clear expression. Analysis is effective and argument well informed. Appropriate use of supporting examples. The answer is competently structured and organised. Answer is mostly grammatically correct with occasional spelling errors.		
			Section C total	**24**	
			Paper total	**120**	

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