GradeMax



Mark Scheme (Results)

Summer 2017

Pearson Edexcel International GCE
In Psychology (WPS03)
Paper 3 Applications of Psychology



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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1(a)	**AO2 (2 marks)** Credit **one** mark for the accurate identification of Erikson's stages of psychosocial development For example: **Diana** ▪ Identity versus Role Confusion **Grandparents** ▪ Integrity versus Despair **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
1(b)	**AO2 (2 marks)** Credit up to **two** marks for each accurate behaviour stated. For example; ▪ Diana's brother may work hard at school to please the teacher (1). ▪ He may not try hard at school if he feels inadequate compared to his peers (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2(a)	**AO1 (2 marks)** Credit up to **two** marks for each accurate statement of meaning of LAD. For example; ▪ The LAD is a hypothetical tool hardwired into the brain (1) that helps children rapidly learn and understand language. (1) **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2(b)	**AO3 (2 marks)** Credit up to **two** marks for justification For example; ▪ Study B is a more recent study so reflects modern children (1) and it has a sample of 1789 which reflects a wider population (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2(c)	**AO1 (1 mark), AO3 (1 mark)** Credit **one** mark for accurate identification of a weakness (AO1). Credit **one** mark for justification of the weakness (AO3). For example: ▪ There is no evidence for the existence of a language device in the brain (1) which Bruner (1983) suggests a support system is actually needed for language development (LASS) (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
3(a)	**AO2 (1 mark)** Credit o**ne** mark for correct answer. ▪ **19.1** **Reject other answers.**	**(1)**

Question Number	Answer	Mark
3(b)	**AO2 (2 marks), AO3 (2 marks)** Credit up to **two** marks for accurate use of data from scenario (AO2) Credit up to **two** marks for justification. (AO3). **For example:** ▪ The mean score for male children copying aggressive male adults in the study is 25.8 (1) is higher than for copying female adults, so supporting the claim that same gender models are more likely to be imitated (1). The girls were more likely to imitate the aggressive male role model (1) supporting Bandura's claim that show more physically aggressive responses if the role model is male (1) **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
3(c)	**AO2 (1 mark)** Credit **one** mark for stating accurate weakness For example: ▪ The children would not normally learn behaviours in an artificial laboratory setting (1) **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(1)**

Question Number	Indicative Content	Mark
4	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Bowlby claimed that the critical period for bonding was before a child is 30 months old. • Secure attachment requires caregiver and child to reciprocate affection. • Children are biologically pre-programmed to form attachments to their primary caregiver to survive. • Failing to form an attachment will leave children with poor internal working model for future relationships. **AO2** • Rebecca is at an age that is critical for forming a bond as she is only one year old so the separation may prevent bonding. • Danielle cannot be at the hospital to reciprocate affection when Rebecca is distressed which will limit attachment opportunities. • Rebecca will need her mother for survival but will only have hospital staff to look after her. • Rebecca may develop relationship issues in later life as a result of her hospital separation from her mother. ` **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
AO1 (4 marks), AO2 (4 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs application in their answer.		
	0	No rewardable material
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 2	3–4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Discussion is partially developed, but is imbalanced or superficial occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)
Level 3	5–6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Candidates will demonstrate a grasp of competing arguments but discussion may be imbalanced or contain superficial material supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures (AO2)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical balanced discussion, containing logical chains of reasoning. Demonstrates a thorough awareness of competing arguments supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). (AO2)

Question Number	Indicative Content	Mark
5	**AO1 (4 marks), AO3 (4 marks)** **AO1** ▪ Children are unable to give informed consent themselves. ▪ The BPS guidelines specify that participants should not be distressed or harmed. ▪ Children's participation in research should consider the UNCRC (United Nations Convention on the Rights of the Child). ▪ Researchers must make sure they are competent enough to deal with any issues that arise with children. **AO3** ▪ Ainsworth's Strange Situation (1969) study was deemed unethical due to the distress caused to the children on separation from their parent, although short term. ▪ Ainsworth (1969) had full parental consent and the mothers could stop the study if they felt the children were distressed. ▪ Watson and Rayner (1920) caused distress for Little Albert during their research on conditioning his fear response. ▪ In Curtiss (1977) the researchers believed that they were improving the quality of life of Genie and making her situation better. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
AO1 (4 marks), AO3 (4 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation / conclusion in their answer.		
	0	No rewardable material.
Level 1	1-2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
Level 2	3-4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a superficial conclusion being made. (AO3)
Level 3	5-6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning leading to a conclusion being presented. Candidates will demonstrate a grasp of competing arguments but evaluation may be imbalanced. (AO3)
Level 4	7-8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

Question Number	Answer	Mark
6(a)	**AO2 (1 mark)** Credit o**ne** mark for an accurate definition. For example; ▪ Cognitive behavioural therapy (CBT) is a talking therapy that can help offenders manage their antisocial behaviour by changing the way they think and behave (1). **Look for other reasonable marking points.**	**(1)**

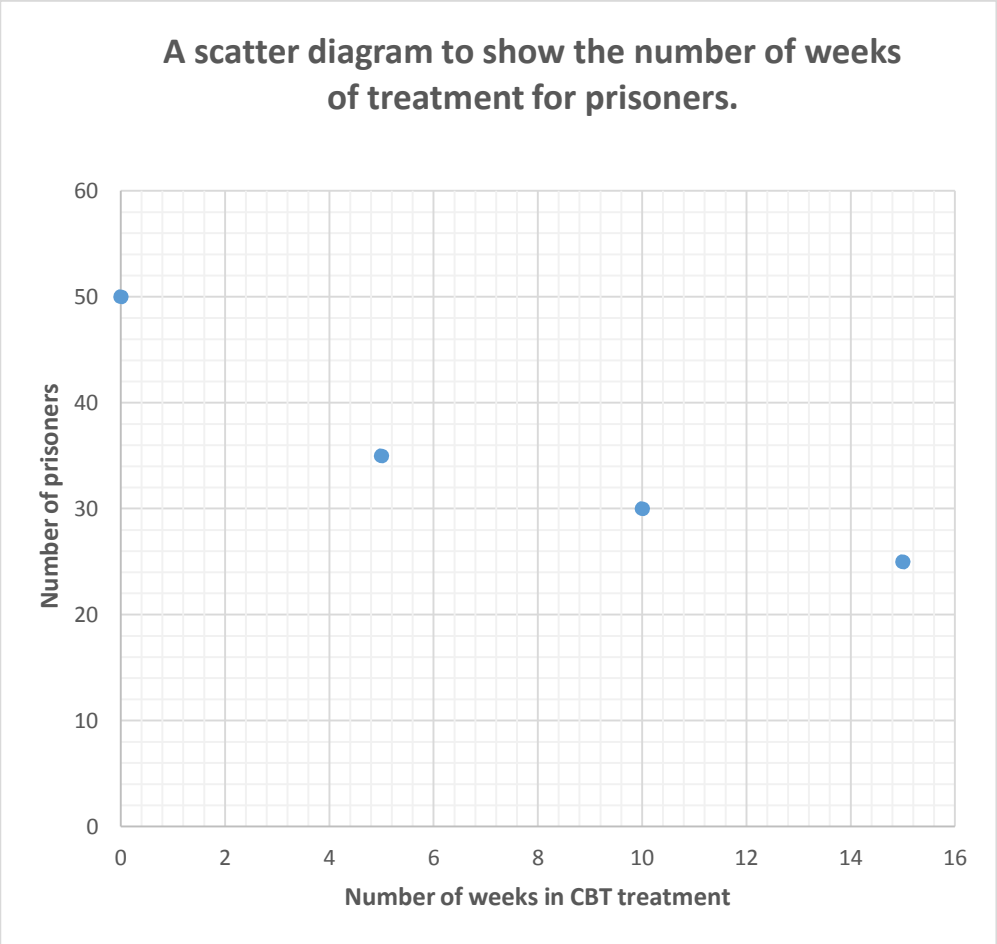
Question Number	Answer	Mark
6(b)	**AO3 (1 mark)** Credit o**ne** mark for stating a strength of CBT for offenders. For example; ▪ Lipsey et al (2007) found that CBT reduced recidivism (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
7(a)	**AO2 (1 mark)** Credit **one** mark for a correct answer ▪ **8** **Reject all other answers.**	**(1)**

Question Number	Answer	Mark
7(b)	**AO3 (1 mark)** Credit **one** mark for accurate conclusion For example: ▪ Cognitive interviews are more successful in eliciting accurate recall of information from interviewees (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
7(c)	**AO2 (2 marks)** Credit **one** mark for a correct calculation. Credit **one** mark for a correct answer. The (sum of values)^2 /(n-1) ▪ 460/9 = 51.11 Standard deviation ▪ 7.15 **Reject all other answers.**	**(2)**

Question Number	Answer	Mark
7(d)	**AO1 (2 marks), AO3 (2 marks)** Credit **one** mark for identifying each strength. (AO1) Credit **one** mark for the justification of each strength. (AO3) For example; ▪ Cognitive interviews are more in depth and detailed than standard interviews (1) as they can include more broad open-ended questions which give a more valid recall of events (1). ▪ Witness recalls incident from a variety of perspectives before being asked direct questions (1) which reduces bias in questioning so increases reliability of information recalled (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
8(a)	**AO2 (3 marks)** Credit **one** mark for appropriate **title**. Credit **one** mark for appropriate **labelling of axes**. Credit **one** mark for correct **plots**.  **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
8(b)	**AO3 (1 mark)** Credit **one** mark for an accurate conclusion. For example: ▪ CBT has a high dropout rate amongst prisoners as only 50% completed the treatment (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
8(c)	**AO1 (1 mark), AO3 (1 mark)** Credit **one** mark for identification of a weakness (AO1). Credit **one** mark for justification of the weakness (AO3). For example: Prisoners may not have been honest in their answers due to social desirability (1) leading to invalid results which may not reflect genuine reasons for leaving the CBT treatment (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative Content	Mark
9	**AO1 (4 marks), AO3 (4 marks)** **AO1** ▪ Self-fulfilling prophecy suggests people internalise labels and behave accordingly. ▪ A person is labelled as antisocial because of a trait they may have. ▪ Once they become labelled they are treated differently. ▪ Not everybody internalises the labels that people assign to them. **AO3** ▪ Rosenthal and Jacobson (1968) found that children labelled as bloomers improved their IQ and continued to improve for the next two years, which suggests this could be true for criminal labelling. ▪ Jahoda (1954) found males born on a Wednesday had a significantly higher arrest rate (22%) than males born on a Monday (6%). ▪ Studies are correlational, they show a link between expectations and outcome but cause could be due to any amount of reasons. ▪ We cannot experimentally test the effects of self-fulfilling prophecy due to ethics. **Look for other reasonable marking points.**	(8)

Level	Mark	Descriptor
AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between Knowledge and understanding vs assessment / conclusion in their answer.**		
	0	No rewardable material.
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Generic assertions may be presented. Limited attempt to address the question. (AO3)
Level 2	3–4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a generic or superficial assessment being presented. (AO3)
Level 3	5–6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. leading to an assessment being presented which considers a range of factors. Candidates will demonstrate understanding of competing arguments/factors but unlikely to grasp their significance. The assessment leads to a judgement but this may be imbalanced. (AO3)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates an awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

Question Number	Indicative Content	Mark
10	**AO1 (4 marks), AO3 (4 marks)** **AO1** ▪ The researchers used secondary data from court trials that had taken place in 2000 and 2001. ▪ The data gathered was taken from an actual jury trial rather than a mock jury. ▪ All the defendants in the trials were black and the jurors were multi-ethnic. ▪ They found that juries with a high percentage of white jurors were more likely to convict black defendants. **AO3** ▪ The data used was outdated as there is 12 years between the data and the study, therefore it may no longer represent the outcomes of jury trials. ▪ There is high ecological validity from the data as the study was of real life trials and therefore is more likely to apply to other real life jury decisions. ▪ There is low generalisability to all trials due to the biased nature of the sample. ▪ There is strong practical application for the criminal justice system in America to change policies for jury composition. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation / conclusion in their answer.**		
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Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Generic assertions may be presented. Limited attempt to address the question. (AO3)
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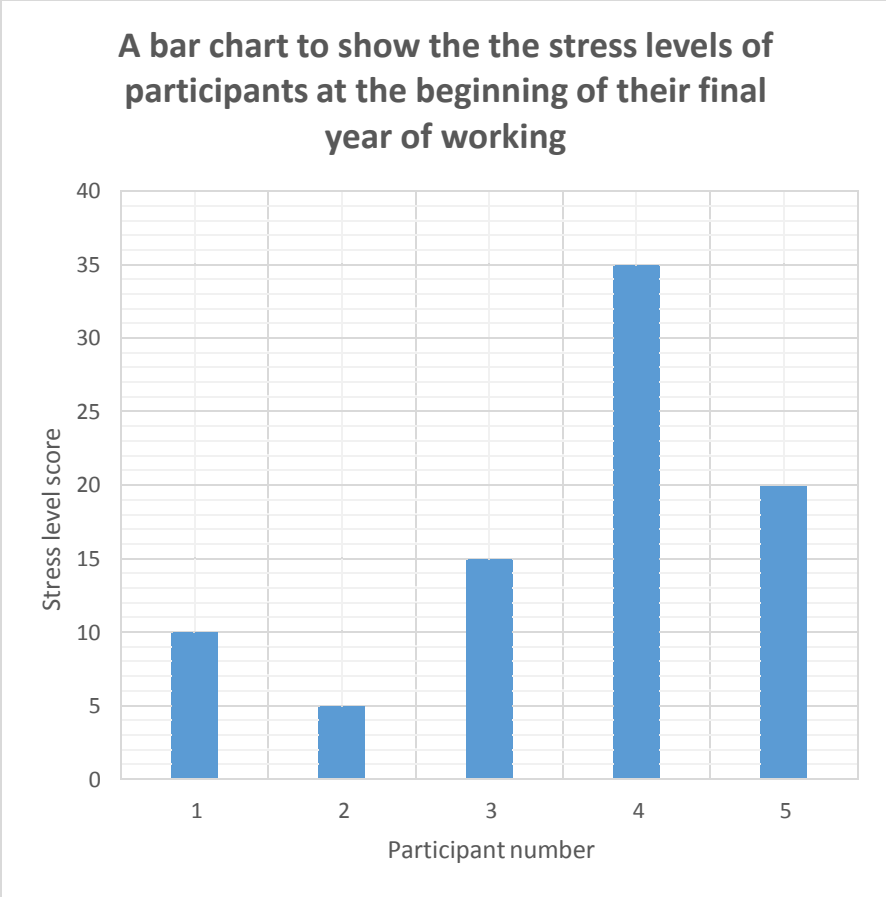
Question Number	Answer	Mark
11(a)	**AO2 (1 mark)** Credit **one** mark for a correct definition. For example; ▪ A personality type that is time-driven and focused on achievement which may lead to stress (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(1)**

Question Number	Answer	Mark
12(a)	**AO2 (1 mark)** Credit **one** mark for correct calculation. • 43 **Reject all other answers.**	**(1)**

Question Number	Answer	Mark
12(b)	**AO3 (2 marks)** Credit **one** mark for each accurate conclusion. For example: ▪ Examinations cause the stress level of students to increase when they are undertaking the examinations (1). ▪ The more stressed they are before the examinations the more stressed they are during the examinations (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
12(c)	**AO2 (2 marks)** Credit **one** mark for dividing the (sum of values)^2 by 9 (n-1). Credit **one** mark for calculating the correct standard deviation. The (sum of values)^2 /(n-1) ▪ 486/9 = 54 Standard deviation ▪ 7.35 **Reject all other answers.**	**(2)**

Question Number	Answer	Mark
12(d)	**AO1 (2 marks), AO3 (2 marks)** Credit **one** mark for each strength identified (AO1). Credit **one** mark for justification of each strength (AO3). For example; ▪ Self-report questionnaires allow participants to describe their own experiences (1) rather than inferring this from observing participants so the data is more valid (1). ▪ Self-preoccupation may lead people to answer more diligently when completing self-reports (1). This gives a more detailed set of responses for analysis (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
13(a)	**AO2 (3 marks)** Credit **one** mark for appropriate **title**. Credit **one** mark for appropriate **labelling of axes**. Credit **one** mark for correct **plots**.  	**(3)**

Look for other reasonable marking points.

Question Number	Answer	Mark
13(b)	**AO3 (1 mark)** Credit **one** mark for an accurate conclusion. For example: ▪ Stress increases the closer you get to retirement (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
13(c)	**AO1 (1 mark), AO3 (1 mark)** Credit **one** mark for identifying a weakness (AO1). Credit **one** mark for justification of the weakness (AO3). For example; It is quantitative data as it is collected in numerical form (1) so therefore it does not give you the reasons behind the stress scores given (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative content	Mark
14	**Hypothalamic-Pituitary-Adrenal (HPA) Axis.** **AO1** ▪ The stressor activates the hypothalamus, which stimulates the pituitary gland, which secretes adrenocorticotrophic hormone (ACTH), which stimulates the adrenal cortex to produce the hormone cortisol ▪ Kiecolt-Glaser et al (1984), natural experiment with students, short term stressors reduce immune system functioning. ▪ Sergestrom and Miller, meta-analysis of 293 studies. found that acute stressors could boost the immune system. ▪ Kiecolt-Glaser et al, (1985) lab experiment looking at the effects of unhappy relationships, women showed more adverse immunological changes to chronic stress. **AO3** ▪ The Hypothalmus co-ordinates the response to both acute, fight or flight and chronic, keep going while we cope with prolonged stress. ▪ Kiecolt-Glaser et al (1984) the validity of the research is questioned as medical students are not representative of the population and therefore limits generalising to wider population, however research with other groups exposed to acute stressors found similar results. ▪ Sergestrom and Miller found that long term stressors could suppress the immune system ▪ Kiecolt-Glaser et al, (1985) the lab experiment may lack real-life relevance. **Cortisol — the stress hormone.** **AO1** ▪ Cortisol is released in response to stress from the adrenal cortex, steady blood sugar levels helps the person to cope with a prolonged stressor. ▪ Taylor et al, found an increase of antibody activity in acute stress condition, reduced activity in longer term stress condition. ▪ The “tend-and-befriend” response is the exact opposite to “fight-or-flight”. ▪ Sawa’s (2013) research found that isolating mice who had a genetic predisposition for mental illness during their adolescence triggered ‘abnormal behaviors’, elevating their levels of cortisol, even when returned to the group.	**(8)**

AO3

- Cortisol increases blood sugar and suppresses the immune system, long term effects include impaired learning.
- Taylor et al, higher levels of oxytocin hormone reduces anxiety and increases sociability resulting in reduced cortisol responses to stress and faster recovery following acute stress.
- The "tend-and-befriend" response increases oxytocin and reduces cortisol.
- Sawa's (2013) research supporting the link between cortisol and stress in the body could be ungeneralisable to adolescents as mice do not represent human reactions to social isolation and stress.

Selye's General Adaptation Syndrome (GAS).

AO1

- The initial alarm stage is when a person registers a threat and creates a hormonal change.
- Exhaustion can occur if the body is repeatedly stressed or the stress is long lasting.
- Selye's research evidence came mostly from his studies using animals such as rats.
- Cognitive psychologists would explain stress as a result of negative and faulty thought patterns.

AO3

- Rodriques et al. (2009) suggested that stress hormones alter the neural structures that are associated with emotion, so Selye's explanation has scientific credibility.
- Brady (1958) supported Selye's explanation of exhaustion as he found that the monkeys exposed to stress physically deteriorated and began to die after 23 days from their stress.
- Animal research supporting the GAS explanation could be ungeneralisable to the human population as animals may not represent human reactions to stress.
- Beck and Weishaar (2010) used cognitive techniques to treat faulty thinking and cognitive bias showing cognitive factors could cause stress and it may not be a result of GAS.

Look for other reasonable marking points.

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Question Number	Indicative content	Mark
15	**AO1 (4 marks), AO3 (4 marks)** **AO1** ▪ The monkeys were allocated according to how quickly they learned to avoid shock. ▪ The executive monkeys were not given any warning that they would be shocked so they could not avoid this. ▪ Brady only tested non-human animals for stress reactions. ▪ The monkeys experienced shocks at 20 second intervals for 6 hours at a time over a 3 week period. **AO3** ▪ By not using random allocations the experimental design is biased so the conclusions are less valid. ▪ Evidence from Weiss (1972) suggests a warning signal reduces the likelihood of developing stress-related stomach ulcers. ▪ The generalisation from animal studies to human beings is limited. ▪ The study can be considered unethical according to the Animals (Scientific Procedures) Act 1986 as some of the executive monkeys actually died. **Look for other reasonable marking points.**	**(8)**

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Level 1	1-2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
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