



## **Mark Scheme (Results)**

May 2018

Pearson Edexcel GCE  
In Psychology (8PS0)  
PAPER 2: Biological Psychology and Learning  
Theories

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Summer 2018

Publications Code 8PS0\_02\_1806\_MS

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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.

## GCE Advanced-Level Psychology Paper 2 Mark Scheme – 1806

## SECTION A

Question Number	Answer	Mark
1	<p style="text-align: center;"><b>AO1 (2 marks), AO3 (2 marks)</b></p> <p><b>One</b> mark for each strength identified (AO1).  <b>One</b> mark for justification of each strength (AO3).</p> <p>For example:  Strength one</p> <ul style="list-style-type: none"> <li>Raine et al. (1997) study used a large sample size of 41 murderers (1) which is generalisable to the target population of murderers pleading not guilty by reason of insanity (1).</li> </ul> <p>Strength two</p> <ul style="list-style-type: none"> <li>Raine et al. (1997) put in place a number of standardised controls, including eliminating any medication for 2 weeks prior to the scan (1) in case this affected the measurements which increased the reliability of the results (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	(4)

Question Number	Answer	Mark
2(a)	<p style="text-align: center;"><b>AO2 (2 marks)</b></p> <p><b>One</b> mark for a basic hypothesis.  <b>Two</b> marks for an operationalised hypothesis.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>There will a relationship between stress and aggression. (1)</li> <li>There will be a relationship between life stressors (out of 20) and levels of aggression (out of 20 on a stress questionnaire). (2)</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to their practical investigation.</b></p> <p><b>Generic answers score 0 marks.</b></p>	(2)

Question Number	Answer	Mark
2(b)	<p style="text-align: center;"><b>AO1 (1 mark), AO2 (1 mark)</b></p> <p>One mark for identification of an ethical consideration (AO1) One mark for application to biological practical investigation (AO2)</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• One ethical consideration was protection of participants (1). I avoided use of distressing life events such as death of a loved one (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to their practical investigation.</b></p> <p><b>Generic answers score 0 marks.</b></p>	(2)

Question Number	Answer	Mark
2(c)	<p style="text-align: center;"><b>AO2 (2 marks)</b></p> <p>Up to <b>two</b> marks for description of Spearman's rho outcome.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• There was a positive correlation between life stressors and aggression (1). As the number of life stressors increased, the level of aggression also increased (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to their practical investigation.</b></p> <p><b>Generic answers score 0 marks.</b></p>	(2)

Question Number	Answer	Mark
2(d)	<p style="text-align: center;"><b>AO2 (2 marks), AO3 (2 marks)</b></p> <p><b>One</b> mark for identification of each improvement (AO2). <b>One</b> mark for justification of each improvement (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"><li>• One improvement to my biological practical could be to complete a pilot study for my self-report questionnaire (1) which would eliminate any design flaws surrounding my questions on aggression and life stressors. (1)</li><li>• Another improvement could be to increase the variety of people who answered the questionnaire on life stressors and aggression (1) which would increase the generalisability of the sample used so it was more representative of people with life stressors (1).</li></ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to their practical investigation.</b></p> <p><b>Generic answers score 0 marks.</b></p>	<b>(4)</b>

Question Number	Answer	Mark
<b>3(a)</b>	<p style="text-align: center;"><b>AO2 (3 marks)</b></p> <p>Up to <b>three</b> marks for relevant description of how Freud's psychodynamic theory explains Belinda's aggressive behaviour (AO2).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Belinda's id is dominant, influencing her to be aggressive toward the other children (1). Belinda takes the other children's toys because her id needs to be satisfied immediately as it is impulsive (1). Belinda has not yet developed her ego so has not yet learned that pushing the other children over is not acceptable (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to the scenario.</b></p> <p><b>Generic answers score 0 marks.</b></p>	<b>(3)</b>

Question Number	Answer	Mark
<b>3(b)</b>	<p style="text-align: center;"><b>AO1 (2 marks), AO3 (2 marks)</b></p> <p><b>One</b> mark for each strength/weakness identified (AO1).  <b>One</b> mark for justification of each strength/weakness (AO3).</p> <p>For example:</p> <p>Strength</p> <ul style="list-style-type: none"> <li>• Freud's explanation of aggression can be applied to treat those with aggressive behaviour through psychoanalysis (1) during which the client explores their unconscious causes of aggression in a safe context with support from their therapist (1)</li> </ul> <p>Weakness</p> <ul style="list-style-type: none"> <li>• Freud's explanation of aggression may be viewed as unscientific (1) as the concepts of id, ego and superego underpinning his theory cannot be accurately measured (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(4)</b>

Question Number	Indicative content	Mark
4	<p style="text-align: center;"><b>AO1 (4 marks), AO3 (4 marks)</b></p> <p>For example Heston (1966):</p> <p><b>AO1</b></p> <ul style="list-style-type: none"> <li>• Heston's (1966) adoption study matched 58 participants with a control group on sex, type of eventual placement and length of time in care.</li> <li>• Data on each participant's psychiatric status was gathered via psychiatric hospital records, school records and police records.</li> <li>• Three psychiatrists, including Heston evaluated the data collected on each participant in order to confirm a diagnosis of schizophrenia.</li> <li>• The psychiatric status of each participant's father's was not checked but none were known to be hospital patients.</li> </ul> <p><b>AO3</b></p> <ul style="list-style-type: none"> <li>• Having a matched design minimised participant variables that could have affected the internal validity of the results.</li> <li>• Secondary data such as the hospital records, were collected which could be more subjective than primary data.</li> <li>• Heston established inter-rater reliability when analysing patient's records as he used multiple data sources in his study.</li> <li>• The psychiatric status of each participant's father was not checked which may have been a contributing factor to schizophrenia.</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(8)</b>

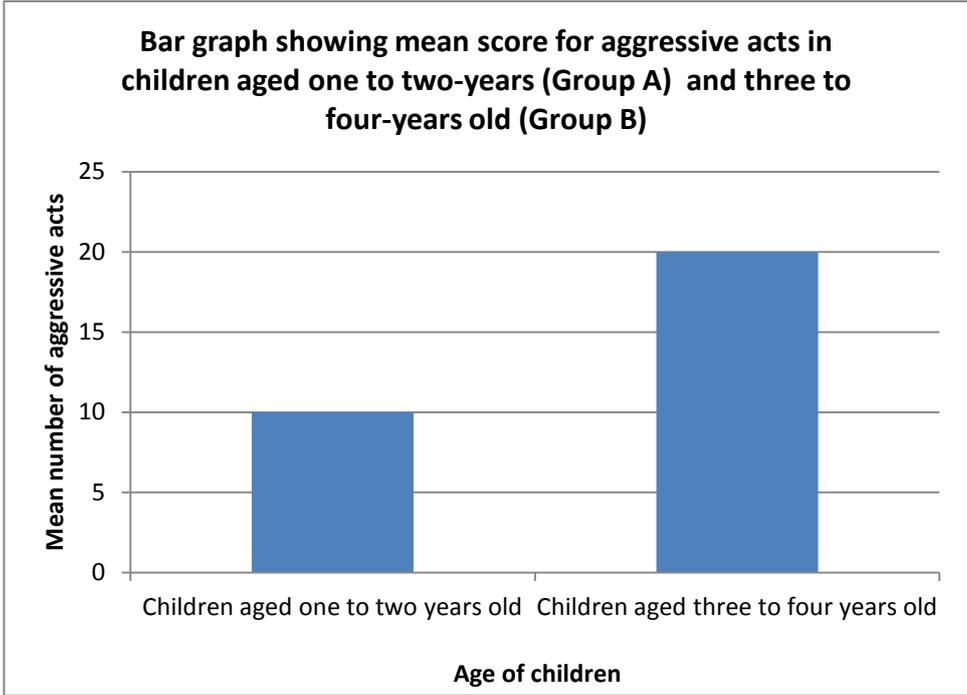
Level	Mark	Descriptor
<b>AO1 (4 marks), AO3 (4 marks)</b> <b>Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.</b>		
	0	No rewardable material.
Level 1	1-2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) 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)

## SECTION B

Question Number	Answer	Mark
5(a)	<p style="text-align: center;"><b>AO1 (3 marks)</b></p> <p>Up to <b>three</b> marks for description of a non-participant observation as a human research method.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Non-participant observations are where the researcher is not part of the group being observed (1). The researcher would count the number of behaviours from afar so as to not influence participant actions (1). The researcher may write down qualitative descriptions of participant responses without being a participant themselves (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(3)</b>

Question Number	Answer	Mark
5(b)	<p style="text-align: center;"><b>AO2 (2 marks)</b></p> <p>Up to <b>two</b> marks for relevant description of event sampling used by Malcolm in his non-participant observation at the local nursery.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Malcolm will decide beforehand what types of aggressive behaviour he will observe at the local nursery, such as hitting (1). During the observation Malcolm will record the aggressive behaviour, such as every time a child hits another child (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to the scenario.</b></p> <p><b>Generic answers score 0 marks.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
5(c)	<p style="text-align: center;"><b>AO2 (1 mark)</b></p> <p><b>One</b> mark for accurate median score for aggressive acts observed for children aged one to two-years old.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• 9</li> </ul> <p><b>Reject all other answers.</b></p>	<b>(1)</b>

Question Number	Answer	Mark						
5(d)	<p style="text-align: center;"><b>AO2 (3 marks)</b></p> <p>One mark for correct/appropriate title (see graph below for suitable example)</p> <p>One mark for correct/appropriate labelling of axes (see graph below for suitable example)</p> <p>One mark for correct plots of data points (see graph below for correct plotting)</p> <div style="text-align: center;"> <p><b>Bar graph showing mean score for aggressive acts in children aged one to two-years (Group A) and three to four-years old (Group B)</b></p>  <table border="1" style="margin: 10px auto;"> <caption>Data from Bar Graph</caption> <thead> <tr> <th>Age of children</th> <th>Mean number of aggressive acts</th> </tr> </thead> <tbody> <tr> <td>Children aged one to two years old</td> <td>10</td> </tr> <tr> <td>Children aged three to four years old</td> <td>20</td> </tr> </tbody> </table> </div>	Age of children	Mean number of aggressive acts	Children aged one to two years old	10	Children aged three to four years old	20	<b>(3)</b>
Age of children	Mean number of aggressive acts							
Children aged one to two years old	10							
Children aged three to four years old	20							

Question Number	Answer	Mark
5(e)	<p style="text-align: center;"><b>AO2 (1 mark), AO3 (1 mark)</b></p> <p><b>One</b> mark for relevant participant variable identified (AO2).</p> <p><b>One</b> mark for justification of how the participant variable could have affected the results (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>Malcolm's could have identified the gender of the children prior to the observation (1) which could have biased the results if one group only had boys (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to the scenario.</b></p> <p><b>Generic answers score 0 marks.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
6	<p style="text-align: center;"><b>AO2 (4 marks)</b></p> <p>Up to <b>four</b> marks for description of one alternative treatment for Matilda's phobia.</p> <p>For example, flooding:</p> <ul style="list-style-type: none"> <li>Matilda's could undertake flooding for her phobia of buttons which involves exposing her directly to her phobia (1). Matilda would be placed in a room filled with buttons with no way of getting out (1). At the beginning Matilda will be in a state of extreme anxiety (1). As Matilda's panic subsides she will come to realise that there is no threat from the buttons resulting in her fear being extinguished (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to the scenario.</b></p> <p><b>Generic answers score 0 marks.</b></p>	<b>(4)</b>

Question Number	Answer	Mark
<b>7(a)</b>	<p style="text-align: center;"><b>AO1 (4 marks)</b></p> <p>Up to <b>four</b> marks for correct description of content analysis.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>Content analysis is a research technique used to examine different media sources (1). It will involve changing qualitative data (e.g. magazine article) into quantitative data (1). The researcher creates categories beforehand to measure the common themes of the content (1). Researchers tally and analyse their findings to uncover themes within the sources (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(4)</b>

Question Number	Answer	Mark
<b>7(b)</b>	<p style="text-align: center;"><b>AO1 (1 mark), AO3 (1 mark)</b></p> <p><b>One</b> mark for identification of weakness (AO1). <b>One</b> mark for justification of weakness (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>The content analysis may be subjective due to different interpretations (1), as researchers may tally the qualitative data based on their own opinions (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(2)</b>

Question Number	Indicative content	Mark
8	<p style="text-align: center;"><b>AO1 (4 marks), AO3 (4 marks)</b></p> <p>AO1</p> <ul style="list-style-type: none"> <li>• The sample consisted of one boy aged around 9 months old at the beginning of the study.</li> <li>• Little Albert was presented with a variety of objects including a white rat.</li> <li>• At 11 months old when Albert went near the white rat, the researchers struck a steel bar behind his head.</li> <li>• Eventually Albert would whimper when the white rat was present without the noise.</li> </ul> <p>AO3</p> <ul style="list-style-type: none"> <li>• There was only one boy in the sample which is not generalisable to females and adults.</li> <li>• Prior to the research Little Albert was tested for his fear of different objects which showed the researchers had conditioned the fear.</li> <li>• The study had a standardised procedure of pairing the white rat with the loud noise and therefore increasing reliability.</li> <li>• There are ethical issues as Little Albert was deliberately upset and may have been psychologically harmed by making him afraid of rats.</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(8)</b>

Level	Mark	Descriptor
<b>AO1 (4 marks), AO3 (4 marks)</b> <b>Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.</b>		
	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
9	<p style="text-align: center;"><b>AO1 (4 marks), AO2 (4 marks), AO3 (4 marks)</b></p> <p><b>AO1</b></p> <ul style="list-style-type: none"> <li>• Positive reinforcement in operant conditioning strengthens a behaviour by providing a consequence an individual finds rewarding.</li> <li>• Operant conditioning's punishment involves applying an unpleasant stimulus or removing a potentially pleasant stimulus.</li> <li>• The prefrontal cortex in the brain relates to emotions, a lack of regulation in the prefrontal cortex could lead to traits like aggression because our emotions are out of control and aggression results.</li> <li>• The limbic system in the brain is involved in controlling our fight-or-flight response which is an emotional arousal to danger when it occurs.</li> </ul> <p><b>AO2</b></p> <ul style="list-style-type: none"> <li>• Harrison was verbally praised by those around him for fighting the first time so he continued to fight for a second time.</li> <li>• Harrison was punished as he was arrested and not allowed to see the rest of the football match.</li> <li>• Harrison may have had low functioning in his prefrotal cortex which cased him to act aggressively and fight during and after the football match.</li> <li>• Harrison's limbic system may not have been working properly on the day of the football match so instead of getting away from the fight – flight; he stayed and fought – fight; which resulted in his arrest.</li> </ul> <p><b>AO3</b></p> <ul style="list-style-type: none"> <li>• Supporting evidence comes from Skinner (1948) who found in his rat experiments that the consequence of receiving food if they pressed the lever ensured that they would repeat the action again and again.</li> <li>• Skinner and Thorndike's studies supporting operant conditioning were tested on animals and then applied the findings to humans, but because animals and humans are cognitively different the evidence and findings of these studies are not directly generalisable to humans.</li> <li>• Phineas Gage in 1848 suffered an unfortunate accident resulting in a change in his character, becoming irresponsible and unreliable which his doctor said was likely to be due to the severing of his prefrontal cortex during the accident.</li> <li>• Brain functioning as an explanation of aggression does not consider other possibilities like Social Learning Theory which suggests people imitate and copy the aggression you see around you and is not to do with neural brain explanations.</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(12)</b>

Level	Mark	Descriptor
<b>(AO1 (4 marks), AO2 (4 marks), AO3 (4 marks))</b> <b>Candidates must demonstrate an equal emphasis between knowledge and understanding vs application vs evaluation/conclusion in their answer.</b>		
	0	No rewardable material.
Level 1	1-3 Marks	<p>Demonstrates isolated elements of knowledge and understanding. (AO1)</p> <p>Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques &amp; procedures). (AO2)</p> <p>A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)</p>
Level 2	4-6 Marks	<p>Demonstrates mostly accurate knowledge and understanding. (AO1)</p> <p>Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques &amp; procedures). (AO2)</p> <p>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)</p>
Level 3	7-9 Marks	<p>Demonstrates accurate knowledge and understanding. (AO1)</p> <p>Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques &amp; procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2)</p> <p>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. (AO1)</p>
Level 4	10-12 Marks	<p>Demonstrates accurate and thorough knowledge and understanding. (AO1)</p> <p>Line(s) of argument supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). Demonstrates the ability to integrate and synthesise relevant knowledge. (AO2)</p> <p>Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)</p>