

Mark Scheme

June 2017

GCE PSYCHOLOGY (9PS0/03)  
PAPER 3: PSYCHOLOGICAL SKILLS

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June 2017

Publications Code 20179PS03

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# General marking guidance

- All candidates must receive the same treatment. Examiners must mark the last candidate in exactly the same way as they mark the first.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than be penalised for omissions.
- Examiners should mark according to the mark scheme – not according to their perception of where the grade boundaries may lie.
- 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/indicative content will not be exhaustive.
- In a levels-based mark scheme there are two distinct parts – the indicative content and the levels descriptors:
  - Indicative content is exactly that – they are factual points that candidates are likely to use to construct their answer. It is possible for an answer to be constructed without mentioning some or all of these points, as long as they provide alternative responses to the indicative content that fulfils the requirements of the question. It is the examiner's responsibility to apply their professional judgement to the candidate's response in determining if the answer fulfils the requirements of the question.
  - The mark grid identifies which assessment objective is being targeted by each bullet point within the level descriptors, and describes the ways in which they will be evidenced across the ability range.
- When deciding how to reward an answer using a levels based mark scheme, a 'best fit' approach should be used:
  - Examiners should first decide which descriptor most closely matches the candidate answer and place it in that band.
  - The mark awarded within the band according to each of the assessment objectives will be decided according to how securely all bullet points are displayed at that level.
  - In cases of uneven performance, this will still apply. Candidates will be placed in the band that best describes their answer, and they will be awarded marks towards the top or bottom of that band depending on how securely they have evidenced bullet points in that, or other descriptors.
- Detailed guidance how to apply all mark schemes, with exemplars for this unit, will be given at standardisation.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, a team leader must be consulted before a mark is given.
- Crossed-out work should be marked **unless** the candidate has replaced it with an alternative response.

## SECTION A: RESEARCH METHODS

Question Number	Answer	Mark
<b>1(a)</b>	<p style="text-align: center;"><b>AO2 (2 marks)</b></p> <p>One mark for a basic two-tailed (non-directional) hypothesis. Two marks for a fully operationalised two-tailed (non-directional) hypothesis.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• There will be a difference in in-person social interactions when a phone is present (1).</li> <li>• There will be a difference in the level of empathetic concern / connectedness when a phone is present and when a phone is absent (2).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
<b>1(b)</b>	<p style="text-align: center;"><b>AO2 (1 mark), AO3 (1 mark)</b></p> <p>One mark for identifying the experimental/research design used in the study (AO2). One mark for justification of using the experimental/research design for this study (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• They used an independent groups design as the mobile device was present or absent (1). This allowed comparisons of empathy to be drawn which could not have been done if there was not a group without a device/ control group (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p> <p><b>Answers must relate to the scenario.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
<b>1(c)</b>	<p style="text-align: center;"><b>AO2 (1 mark), AO3 (1 mark)</b></p> <p>One mark for identifying a strength of a field experiment for this study (AO2). One mark for exemplification/justification of the strength for this study (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>A field experiment allowed real life behaviour to be assessed regarding empathy and mobile device use (1) which increases ecological validity as participants would be in a natural setting for the conversations with a mobile device present/absent (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
<b>1(d)</b>	<p style="text-align: center;"><b>AO2 (2 marks), AO3 (2 marks)</b></p> <p>One mark for identification of each weakness up to a maximum of two marks (AO2) One mark for justification of each weakness up to a maximum of two marks (AO3)</p> <p>For example:</p> <ul style="list-style-type: none"> <li>The participants may not have similar opinions on what each number on the scale may be for high concern (1) which reduces the validity of the scale because the same level of empathy could be rated as different numbers on the scale depending on the respondent (1).</li> <li>The scale does not allow the participant to expand on their view of how empathetic their conversation partner is generally (1) which means the ranked scale lacks validity as it is not truly measuring that person's level of empathy (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>1(e)</b>	<p style="text-align: center;"><b>AO2 (3 marks), AO3 (3 marks)</b></p> <p>Candidate responses have to be drawn from evidence presented in Table 1.</p> <p>One mark for identification of each conclusion (AO2) One mark for justification of each conclusion (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• There was a larger disagreement between participants when a mobile phone was present than when it was absent (1), as there was a larger standard deviation of 0.91 when a mobile phone was present compared to when it was absent with 0.66 (1).</li> <li>• Level of connectedness only had a difference of 0.31 between mobile phone present and absent (1) which suggests that presence/absence of a mobile phone does not have a large impact on how connected someone feels with their conversation partner (1).</li> <li>• Participants felt lower empathy for their conversation partner when a mobile phone was present (1), which was shown with an average of 3.54 for empathetic concern with a mobile phone present whereas it was 5.85 when it was absent (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>(6)</b>

Question Number	Answer	Mark
<b>2(a)</b>	<p style="text-align: center;"><b>AO2 (1 mark) AO3 (1 mark)</b></p> <p>One mark for identification of an appropriate practical application of the study (AO2). One mark for justification of the practical application (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>One application is that the government should advise women to abstain from alcohol during pregnancy (1). This is because the rats exposed to ethanol had fewer hippocampal cells than those exposed to water which suggests drinking during pregnancy has negative consequences (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
<b>2(b)</b>	<p style="text-align: center;"><b>AO2 (3 marks), AO3 (3 marks)</b></p> <p>Up to three marks for identification of each argument for or against the use of animals in the study (AO2) Up to three marks for justification of each argument for or against the use of animals in the study (AO3)</p> <p>For example:</p> <ul style="list-style-type: none"> <li>Research using animals can be easily controlled such as the doses of alcohol given to the rats (1) which means a justification for using animals in this study is that it can be repeated to test for reliability (1).</li> <li>The study administered alcohol to pregnant rats which could permanently damage their offspring (1) and such a procedure cannot ethically be carried out with humans which is one reason for using animals instead (1).</li> <li>The study is giving pregnant rats alcohol to see the effect on their offspring which may not be a valid comparison (1) as rats have a different number of chromosomes / less complex brain structure than humans so the effects of alcohol may not occur in humans (1).</li> </ul> <p><b>Look for other reasonable marking points.</b> <b>Answers must relate to the scenario.</b> <b>Generic answers score 0 marks.</b></p>	<b>(6)</b>

## SECTION B: REVIEW OF STUDIES

Question Number	Answer	Mark
<b>3(a)</b>	<p style="text-align: center;"><b>AO2 (1 mark), AO3 (1 mark)</b></p> <p>One mark for comparing the observed/calculated value with a relevant critical value (AO2)</p> <p>One mark for justification of what this means for the findings of the study (AO3)</p> <p>For example:</p> <ul style="list-style-type: none"> <li>The calculated value (4.8) is greater than the critical value (2.71) for a 5% level of significance (1). This means that those who played as a hero would show more prosocial behaviour than those assigned to play as the villain (1).</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	<b>(2)</b>

Question Number	Answer	Mark
<b>3(b)</b>	<p style="text-align: center;"><b>AO2 (3 marks), AO3 (3 marks)</b></p> <p>Up to three marks for application of social learning theory to the findings of the study (AO2).</p> <p>Up to three marks for judgement/justification of social learning theory to the findings of the study (AO3).</p> <p>For example:</p> <ul style="list-style-type: none"> <li>The participants may have seen the hero/villain as a role model who they looked up to and admired (1). Bandura (1961, 1963) supports this as they showed children looked up to and imitated an adult role model acting violently which could explain them not posting the letter (1).</li> <li>When playing the computer game participants will have remembered (retention) the prosocial/antisocial behaviour of the hero/villain (1). Whilst Bandura's experiments showed children retained the role model actions they were conducted in a laboratory setting is less useful to account for posting the letter as this lacks ecological validity (1).</li> <li>The prosocial behaviour of the hero may have encouraged those assigned to the hero to pick up the letter which is motor reproduction (1). However, participants may have been genetically predisposed to being prosocial or antisocial which means social learning theory may not be a useful explanation of the study (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>(6)</b>



Question Number	Indicative content	Mark
4	<p style="text-align: center;"><b>AO1 (6 marks), AO3 (10 marks)</b></p> <p><b>AO1</b></p> <ul style="list-style-type: none"> <li>• Ethnocentric implications are those that can apply to only one culture/set of people</li> <li>• Eurocentric implications are those that can apply to European / Western concepts</li> <li>• Male researchers may selectively use information to promote stereotypical differences between the sexes</li> <li>• Rosenhan's (1973) participants infiltrated 12 hospitals in five American states with a variety of funding and conditions</li> <li>• Pseudopatients in Rosenhan's (1973) study complained of hearing voices saying 'empty', 'hollow', and 'thud'</li> <li>• Sherif et al. (1954/1961) used only 11 year old boys in their research into prejudice in the Robbers Cave State Park</li> <li>• Sherif et al. (1954/1961) created superordinate goal activities where the Eagles and Rattlers to work together when the truck got 'stuck' and when the water supply 'failed'</li> <li>• Rosenhan (1973) had three women and five men who acted as pseudopatients to try and gain admission to hospitals</li> <li>• Sherif et al. (1954/1961) used cooperative tasks such as collecting beans and tug of war</li> </ul> <p><b>AO3</b></p> <p><b>Methods</b></p> <ul style="list-style-type: none"> <li>• Sherif experienced both Turkish and American cultures so may have interpreted the findings with a more varied understanding of cultural differences</li> <li>• However, Sherif was still likely to have interpreted his findings using an individualist outlook so may be ethnocentric/eurocentric</li> <li>• Rosenhan's choice of hospitals would have been representative of American hospitals in the 1970s but may have been very different to those in collectivist cultures so could be considered ethnocentric</li> <li>• Hearing voices (symptoms given in Rosenhan, 1973) may not be a symptom of mental illness in some cultures so could be considered culturally biased</li> </ul>	<b>(16)</b>

	<ul style="list-style-type: none"> <li>• As Sherif et al. (1954/1961) used only males, his research of how prejudice can be created may not apply to females so could be considered androcentric</li> <li>• As Rosenhan (1973) had a mix of males and female participants the research is more representative of mental health diagnosis and treatment for both genders</li> <li>• Sherif et al. (1954/1961) used cooperative tasks such as collecting beans and tug of war which may be applicable to both individualist and collectivist cultures</li> </ul> <p><b>Implications for the real world</b></p> <ul style="list-style-type: none"> <li>• Sherif et al. (1954/1961) was carried out in an American state park so implications about reducing prejudice through cooperation may only be representative of US/Western culture</li> <li>• Implications about the reliability/validity of diagnosis from Rosenhan (1973) are relevant to the DSM which is not a universal diagnostic tool</li> <li>• Implications about reducing prejudice through cooperation from Sherif et al. (1954/1961) may not be relevant to females so could be considered androcentric</li> <li>• Reliability/validity of mental disorders affect both genders so the implications of Rosenhan (1973) may be accurate and useful</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	
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Level	Mark	Descriptor
<p style="text-align: center;"><b>AO1 (6 marks), AO3 (10 marks)</b></p> <p><b>Candidates must demonstrate a greater emphasis on evaluation/conclusion vs knowledge and understanding in their answer. Knowledge &amp; understanding is capped at maximum 6 marks.</b></p>		
Level 0	0	No rewardable material.
Level 1	1–4 marks	<p>Demonstrates isolated elements of knowledge and understanding. (AO1)</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	5–8 marks	<p>Demonstrates mostly accurate knowledge and understanding. (AO1)</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	9–12 marks	<p>Demonstrates accurate knowledge and understanding. (AO1)</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. (AO3)</p>
Level 4	13–16 marks	<p>Demonstrates accurate and thorough knowledge and understanding. (AO1)</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>

## SECTION C: ISSUES AND DEBATES

Question Number	Indicative content	Mark
5	<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>• Evolution is the process of change in all forms of life over generations</li> <li>• Personality theory suggests a biological basis to personality which affects human behaviour</li> <li>• Hormones such as testosterone contribute to human behaviour</li> <li>• The limbic system has a reward pathway involved in providing pleasure for behaviours such as eating, exercise, and sex</li> </ul> <p><b>AO2</b></p> <ul style="list-style-type: none"> <li>• Evolutionary theory suggests survival and continuation of the species is upmost so would choose potential partners that can provide healthy children</li> <li>• People may be more attracted to others with similar personality characteristics who are chosen as 'matches' so two extroverts may be more compatible/desirable to one another</li> <li>• Inherited / acquired hormone levels such as testosterone may influence choice of potential partner or aggressive behaviour</li> <li>• A romantic partner can stimulate the reward pathway in the brain producing dopamine which will reinforce the desire to continue the relationship with that person</li> </ul> <p><b>AO3</b></p> <ul style="list-style-type: none"> <li>• Research supports aggression as an evolved solution to adaptive problems, such as Daly et al. (1982) who linked domestic abuse to dissuasion of romantic partners from infidelity</li> <li>• Burger (2009) found evidence for personality characteristics such as empathy and desire for control linked to obedience which supports the influence of personality on human behaviour</li> <li>• Research linking hormones like testosterone to human behaviour is correlational so it may be that other factors are more responsible for seeking romantic partners</li> <li>• Evidence supporting the role of the reward pathway in the brain to behaviour (e.g. Olds and Milner, 1954) may use animals which may not be generalisable to humans</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	(12)

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>		
Level 0	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. (AO3)</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>

Question Number	Indicative content	Mark
6	<p style="text-align: center;"><b>AO1 (8 marks), AO3 (12 marks)</b></p> <p><b>AO1</b></p> <ul style="list-style-type: none"> <li>• A science is able to produce hypotheses that are falsifiable</li> <li>• Science studies concepts in a reductionist manner vs. holistic</li> <li>• According to Popper to be a science there should be an overarching paradigm</li> <li>• A science uses data collection and hypothesis testing to progress knowledge in a research area</li> <li>• Biological psychology use animals where all conditions can be carefully and closely controlled</li> <li>• Methodology such as laboratory experiments is seen as fulfilling scientific criteria</li> <li>• Objectivity is considered to make something more scientific whereas subjectivity makes it less scientific</li> <li>• Social psychology use unstructured interviews and analyse qualitative data to explore concepts such as prejudice</li> <li>• Biological psychology uses physiological measurements to collect quantitative data, such as the analysis of blood tests</li> </ul> <p><b>AO3</b></p> <ul style="list-style-type: none"> <li>• Concepts such as the id/ego/superego, though they may seem intuitively reasonable cannot be proven to exist so are unfalsifiable which is unscientific</li> <li>• Case studies of brain damaged patients can be useful in falsifying theories which is a feature of science</li> <li>• Social psychology can see the influence of obedience and prejudice but finds it difficult to operationalise these concepts which could be considered unscientific</li> <li>• Biological psychology can reduce human behaviour such as aggression to genetic factors such as the MAOA gene so could be considered reductionist and therefore more scientific</li> <li>• Cognitive psychology take a nomothetic stance in the search for general laws of how memory works which is a scientific approach</li> <li>• Experiments are used to confirm people as the same in their processes/strategies e.g. multistore model of</li> </ul>	<b>(20)</b>

	<p>memory is a scientific approach</p> <ul style="list-style-type: none"> <li>• The use of a high degree of control in biological psychology where all conditions can be carefully and closely controlled leaving little opportunity for confounding variables to affect results is scientific</li> <li>• Learning theories and cognitive psychology adopt experimental methods which can be seen as objective and therefore scientific</li> <li>• Social psychology uses experiments in a natural setting so can be affected by extraneous variables which is less scientific</li> <li>• Cognitive psychology has difficulties as it is attempting to measure brain functioning, something which is somewhat subjective and less scientific</li> <li>• The psychodynamic approach is often seen as the least scientific approach within psychology as so much of it is difficult to test, as well as subjective</li> <li>• Unstructured interviews using qualitative data are less controlled and empirical than experiments and can therefore be considered less scientific</li> <li>• As biological experiments in psychology collect empirical data which can be tested using statistical tests and hypotheses refuted or not so which is scientific</li> </ul> <p><b>Look for other reasonable marking points.</b></p>	
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Level	Mark	Descriptor
<p align="center"><b>AO1 (8 marks), AO3 (12 marks)</b></p> <p><b>Candidates must demonstrate a greater emphasis on assessment/conclusion vs knowledge and understanding in their answer. Knowledge &amp; understanding is capped at maximum 8 marks.</b></p>		
Level 0	0	No rewardable material.
Level 1	1–4 marks	<p>Demonstrates isolated elements of knowledge and understanding. (AO1)</p> <p>Generic assertions may be presented. Limited attempt to address the question. (AO3)</p>
Level 2	5–8 marks	<p>Demonstrates mostly accurate knowledge and understanding. (AO1)</p> <p>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)</p>
Level 3	9–12 marks	<p>Demonstrates accurate knowledge and understanding. (AO1)</p> <p>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 will be imbalanced. (AO3)</p>
Level 4	13–16 marks	<p>Demonstrates accurate and thorough knowledge and understanding. (AO1)</p> <p>Displays a logical assessment, containing logical chains of reasoning throughout which consider a range of factors. Demonstrates an understanding of competing arguments/factors but does not fully consider the significance of each which in turn leads to an imbalanced judgement being presented. (AO3)</p>
Level 5	17–20 marks	<p>Demonstrates accurate and thorough knowledge and understanding. (AO1)</p> <p>Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates a full understanding and awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)</p>



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