



**General Certificate of Education (A-level)  
January 2012**

**Psychology A**

**PSYA1**

**(Specification 2180)**

**Unit 1: Cognitive Psychology, Developmental  
Psychology and Research Methods**

**Final**

***Mark Scheme***

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## Section A Cognitive Psychology and Research Methods

### Question 1 a

**AO2 = 2 marks      Application of knowledge to novel situation**

This is an example of misleading information because the word “youth” suggests the man was young.

1 mark for a brief or muddled answer eg identifying the use of the word “youth” or “it refers to age”.

2 marks for some accurate elaboration eg the answer clearly states that the man was young or a youth or suggests that his age may influence the answer.

Credit answers which state that the information is misleading because the question suggests there was a youth in the picture, when in fact there was only a man and a woman.

### Question 1 b

**AO3 = 1 mark + 3 marks      Application of knowledge of research methods**

1 mark for independent (groups, measures, participants or subjects or between subjects or participants) design or unrelated design. 0 marks for individual.

1 mark for matched (groups, measures, participants, subjects).

A repeated measures design could not be used because participants would take part in both conditions. This would be inappropriate because their answer to one question would affect their answer to the other question. Candidates may point out this would make it easy to work out the aim of the experiment and so could lead to demand characteristics.

1 mark for a very brief/muddled answer eg “they couldn’t answer both questions.” “It could lead to demand characteristics.”

Further marks for accurate detail. “It could lead to demand characteristics because they would know what the experiment was about.” 2 marks

“Participants couldn’t take part in both conditions because their answer to one question would affect their answer to the other question.” 3 marks

**Question 1 c**

**A03 = 4 marks      Application of knowledge of research methods**

In this experiment it could be used to check how long the participant should be given to look at the picture so that the timing could be changed if it was too long or too short. It could check the participants understand the questions asked and what they are required to do. It could also be used to ask a few participants about their experience of taking part.

Credit any appropriate answer which could apply to this investigation. No marks are awarded for a definition of a pilot study. Explanations which do not relate to this investigation maximum 2 marks.

<b>A03 Application of knowledge of research methods</b>
<b>4 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed explanation that demonstrates sound understanding of why a pilot study would be appropriate in this study.
<b>3 marks Less detailed but generally accurate</b> Less detailed but generally accurate answer that demonstrates sound understanding of why a pilot study would be appropriate in this study.
<b>2 marks Basic</b> Basic answer that demonstrates some understanding of why a pilot study would be appropriate in this study, but lacks detail and may be muddled.
<b>1 mark Very brief/flawed</b> Very brief or flawed answer demonstrating very little understanding of why a pilot study would be appropriate in this study.
<b>0 marks</b> No creditworthy material.

**Question 1 d**

**A03 = 4 marks      Application of knowledge of research methods**

One strength of using photographs in the investigation would be control of variables eg the same pictures could be shown for the same amount of time. Candidates may refer to a limitation of the live conversation.

One limitation is lack of validity. The findings cannot be generalised to real life situations where other factors such as changing facial expressions and gestures could be relevant. For each strength and limitation 1 mark for stating a strength/limitation. 2<sup>nd</sup> mark for accurate elaboration.

**Question 1 e**

**AO1 = 6 marks      Knowledge of research into misleading information**

Candidates must select a research study (studies) which relates to misleading information/leading questions, so research into weapon focus should not be credited. Candidates are likely to refer to Loftus and Palmer’s (1974) experiment where the verb in the critical question was changed (smashed, collided, bumped, hit or contacted.) Other relevant research would be Loftus and Palmer asking participants “Did you see any broken glass?” and Loftus et al’s (1978) study using a red Datsun and Stop or Yield signs. Research into anxiety and EWT is not relevant unless the candidate refers to misleading information such as Yuille and Cutshall where the witnesses to a real-life shooting appeared resistant to misleading information. Research relating to age could also be relevant. Eg Warren et al (2005) found children were more likely to be influenced by misleading information than adults. Credit any relevant research.

Examiners are reminded that there is a depth/breadth trade-off.

<b>AO1 Knowledge and understanding</b>
<b>6 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed answer that demonstrates sound knowledge and understanding of the procedures and findings of one or more relevant research studies.
<b>5 - 4 marks Less detailed but generally accurate</b> Less detailed but generally accurate answer that demonstrates relevant knowledge and understanding of the procedures and findings of one or more relevant research studies.
<b>3 - 2 marks Basic</b> Basic answer that demonstrates some relevant knowledge and understanding of the procedures and findings of one or more relevant research studies but lacks detail and may be muddled.
<b>1 mark Very brief/flawed</b> Very brief or flawed answer demonstrating very little knowledge of the procedures and findings of one or more relevant research studies.
<b>0 marks</b> No creditworthy material.

## Question 2

### **AO2 = 4 marks      Application of knowledge to novel situation**

The answer should clearly relate to one or more of the main techniques used in a cognitive interview (other than report everything):-

Context reinstatement

Recall from a changed perspective

Recall in reverse order

And/or the main additional features of the enhanced cognitive interview:-

Encourage to relax and speak slowly

Offer comments to help clarify their statements

Adapt questions to suit the understanding of individual witnesses

1 mark for simple identification of a relevant cognitive technique, or a very brief suggestion

eg “tell me what you saw in reverse order.”

2 marks for naming two or more relevant techniques or for a very brief outline of how one

technique could be used eg “tell me what you saw in reverse order, starting with when the

man was stabbed. A maximum of 2 marks can be awarded if there is no reference to details in the passage.

Further marks for accurate elaboration including reference to details in the passage.

Candidates who refer to only one technique should include more detail than those who refer to more than one.

### Question 3

#### AO1 = 6 marks      Description of the MSM

Atkinson and Shiffrin's (1968) multi-store model of memory (MSM) makes a distinction between the separate stores of sensory, short-term and long-term memory.

Likely features include:

- It is a structural model
- STM and LTM are unitary stores
- Information passes from store to store in a linear way
- Rehearsal is needed to pass information from STM to LTM
- Each store has its own characteristics in terms of encoding, capacity and duration
- Explanations of forgetting are different for each store

Candidates may include a diagram. If this is accurately labelled and sufficiently detailed, this can potentially receive the full 6 marks as long as candidates have referred to both components and processes.

Candidates may include reference to Shiffrin's later ideas which added the processes of elaborative and maintenance rehearsal to the original structures.

<b>AO1</b>
<b>Knowledge and understanding</b>
<b>6 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed description of the MSM that demonstrates sound knowledge and understanding. There is appropriate selection of material to address the question.
<b>5-4 marks Less detailed but generally accurate</b> Less detailed but generally accurate description of the MSM that demonstrates relevant knowledge and understanding. There is some evidence of selection of material to address the question.
<b>3-2 marks Basic</b> Basic description that demonstrates some relevant knowledge and understanding of the MSM but lacks detail and may be muddled. There is little evidence of selection of material to address the question.
<b>1 mark Very brief/flawed</b> Very brief or flawed description that demonstrates very little knowledge or understanding of the MSM. Selection and of information is largely or wholly inappropriate.
<b>0 marks</b> No creditworthy material presented.

**AO2 = 6 marks      Evaluation of the MSM**

Candidates are likely to evaluate the MSM in terms of its strengths and weaknesses. Likely strengths include research in support of the distinction between STM and LTM in terms of capacity, duration and encoding. Eg, Milner (1965) case study of HM who was unable to retain any new information although his immediate digit span was within normal limits; Glanzer and Cunitz (1966) who investigated the effect of immediate and delayed recall on primacy and recency in a serial position curve; Likely weaknesses include an emphasis on rote rehearsal as a mechanism for transfer from STM to LTM although this is not a very effective means of transfer, and transfer often occurs with no rehearsal. Candidates may also refer to case studies such as that of Clive Wearing who lost episodic but not procedural memory suggesting there may be more than one type of LTM. Genuine comparison/contrast with alternative models of memory is creditworthy, but description eg of WMM is not.

<p><b>AO2</b>  <b>Application of knowledge and understanding</b></p>
<p><b>6 marks Effective evaluation</b>                  Effective use of material to address the question and provide informed evaluation.                  Effective use of research evidence.                  Broad range of issues and/or evidence in reasonable depth, or a narrower range in greater depth.                  Clear expression of ideas, good range of specialist terms, few errors of grammar, punctuation and spelling.</p>
<p><b>5-4 marks Reasonable evaluation</b>                  Material is not always used effectively but produces a reasonable evaluation.                  Reasonable use of research evidence.                  A range of issues and/or evidence in limited depth, or a narrower range in greater depth.                  Reasonable expression of ideas, a range of specialist terms, some errors of grammar, punctuation and spelling.</p>
<p><b>3-2 marks Basic evaluation</b>                  The use of material provides only a basic evaluation.                  Basic use of research evidence.                  Superficial consideration of a restricted range of issues and/or evidence.                  Expression of ideas lacks clarity; some specialist terms used; errors of grammar, punctuation and spelling detract from clarity.</p>
<p><b>1 mark Rudimentary evaluation</b>                  The use of material provides only a rudimentary evaluation.                  Use of research evidence is just discernible or absent.                  Expression of ideas poor; few specialist terms used; errors of grammar, punctuation and spelling often obscure the meaning.</p>
<p><b>0 marks</b>                  No creditworthy material presented.</p>

## Section B Developmental Psychology and Research Methods

### Question 4 a

**AO3 = 4 marks**      **Application of knowledge of research methods**

The independent variable is age at which the children started day care, or whether the children started day care before or after age 2.

1 mark for age

2 marks where the IV is operationalised as above.

The dependent variable is aggression score as assessed by the researcher.

1 mark for aggression

2 marks for aggression score, measure of aggression, level of aggression.

If either IV or DV is identified but not entirely clear - 1 mark.

### Question 4 b

**AO3 = 2 marks**      **Application of knowledge of research methods**

1 mark for pointing out the difference is small or the age of starting day care didn't make much difference to mean aggression score.

1 mark for stating the children who started day care before age 2 had a higher mean score than those who started after the age of 2

1 mark for saying both groups mean score was approximately half the maximum.

Maximum 2 marks

Eg "The mean aggression score was slightly higher for children who started day care before the age of 2." 2 marks

Candidates can gain 2 marks by two brief points or one point elaborated.

### Question 4 c

**AO3 = 1 mark**      **Knowledge of research methods**

1 mark for:      range,  
                         semi-interquartile range,  
                         interquartile range,  
                         standard deviation or  
                         variance.

Do not credit: deviation or interquartile

### Question 4 d

**AO3 = 3 marks      Knowledge of research methods**

0 marks if the candidate has not drawn a bar chart.

1 mark if the candidate has drawn a bar chart but the scale is clearly inappropriate and not correctly labelled.

2 marks if the candidate has drawn a correctly labelled bar chart but the scale is clearly inappropriate; or the candidate has drawn an appropriate bar chart but the labelling is incomplete eg vertical axis refers to mean score or aggression score rather than mean aggression score.

For full marks the bar chart should indicate a small difference. Both bars and the vertical axis should be correctly labelled.

### Question 4 e

**AO3 = 2 marks      Application of knowledge of research methods**

0 marks for a non-directional hypothesis or a correlational hypothesis.

1 mark if either variable is not operationalised eg day care makes children more aggressive or the answer is slightly muddled.

2 marks for eg Children who start day care before age 2 have higher aggression scores than those who start day care after age 2, or Children who start day care at a younger age will be assessed as more aggressive than children who start day care at an older age.

Credit a directional hypothesis in the opposite direction.

### Question 4 f

**AO1 = 4 marks      Knowledge of day care**

Characteristics of high quality day care include :-

well qualified staff

low staff turn over

high caregiver to child ratio

use of key workers

In each case 1 mark for a brief answer eg use of key workers. 2<sup>nd</sup> mark for appropriate elaboration eg use of key workers to give children an opportunity to make an attachment.

### Question 5 a

**AO2 = 2 marks      Application of knowledge**

Sam

Secure attachment / Type B = 1 mark

Insecure avoidant / Type A = 1 mark

Insecure resistant / insecure ambivalent / Type C = 0 marks

Dan

Insecure resistant, resistant, insecure ambivalent / Type C = 1 mark

Secure attachment / Type B = 1 mark

Insecure avoidant / Type A = 0 marks

### Question 5 b

**AO2 = 2 marks      Application of knowledge**

If in 5a Sam is secure - approaches mother, is easily comforted/calmed/soothed, shows joy, greets warmly, happiness on reunion, enthusiastic on reunion (behaviour associated with secure attachment) = 1 mark

Or

If in 5a Sam is insecure avoidant - ignores mother, does not seek comfort from mother when she returns (behaviour associated with insecure avoidant/ attachment) = 1 mark

If in 5a Dan is insecure resistant - may go to mother, but will not be comforted, may resist/reject contact or comfort (behaviour associated with insecure resistant/ambivalent attachment) = 1 mark

Or

If in 5a Dan is secure - approaches mother, is easily comforted/calmed/soothed, shows joy, greets warmly, happiness on reunion, enthusiastic on reunion (behaviour associated with secure attachment) = 1 mark

0 marks should be awarded in 5b if the answer to 5b is inconsistent with 5a.

### Question 5 c

**AO2 = 4 marks      Explanation of limitations of using the strange situation**

Limitations include

Cultural differences eg Children in Germany are encouraged to be independent and may therefore appear to show insecure avoidant attachment while infants in Japan are rarely separated from their mothers and may therefore appear insecure resistant.

Effects of being in day care eg children who are used to being separated from their mother may show characteristics of insecure attachment.

Lack of ecological validity. The children are in an unfamiliar environment so may act differently.

<b>AO2 Explanations of limitations</b>
<b>4 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed answer that demonstrates sound knowledge of one or more relevant limitations.
<b>3 marks Less detailed but generally accurate</b> Less detailed but generally accurate answer that demonstrates relevant knowledge of one or more limitations.
<b>2 marks Basic</b> Basic answer that demonstrates some relevant knowledge of one or more limitations, but lacks detail and may be muddled.
<b>1 mark Very brief/flawed</b> Very brief or flawed answer demonstrates some relevant knowledge of one or more limitations.
<b>0 marks</b> No creditworthy material.

## Question 6

### AO1 = 4 marks      Outline of Bowlby's explanation of attachment

Bowlby's theory of attachment suggests attachment is important for survival. Infants are innately programmed to form an attachment. This is a biological process and takes place during a critical period. The role of social releasers is emphasised. The child's relationship with a PCG provides an internal working model which influences later relationships.

<b>AO1</b> <b>Knowledge and understanding</b>
<b>4 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed outline that demonstrates sound knowledge and understanding. There is appropriate selection of material to address the question.
<b>3 marks Less detailed but generally accurate</b> Less detailed but generally accurate outline that demonstrates relevant knowledge and understanding. There is some evidence of selection of material to address the question.
<b>2 marks Basic</b> Basic outline that demonstrates some relevant knowledge and understanding, but lacks detail and may be muddled. There is little evidence of selection of material to address the question.
<b>1 mark Very brief/flawed</b> Very brief or flawed description that demonstrates very little knowledge. Selection of information is largely inappropriate.
<b>0 marks</b> No creditworthy material presented.

### AO2 = 4 marks      Evaluation of Bowlby's explanation of attachment

Evaluation of Bowlby's explanation could relate to criticism of the critical period and monotropy. Candidates might refer to imprinting and the problems of generalising from birds to humans. However, positive references to the importance of Bowlby's work would be equally relevant.

<b>AO2</b> <b>Application of knowledge and understanding</b>
<b>4 marks Effective evaluation</b> Effective use of material to address the question and provide informed evaluation. Broad range of issues and/or evidence in reasonable depth, or a narrower range in greater depth.
<b>3 marks Reasonable evaluation</b> Material is not always used effectively but produces a reasonable evaluation. A range of issues and/or evidence in limited depth, or a narrower range in greater depth.
<b>2 marks Basic evaluation</b> The use of material provides only a basic evaluation. Superficial consideration of a restricted range of issues and/or evidence.
<b>1 mark Rudimentary evaluation</b> The use of material provides only a rudimentary evaluation.
<b>0 marks</b> No creditworthy material presented.

## Question 7

### **AO1 = 4 marks      Explanation of the terms institutional care and privation**

Institutional care refers to situations where children spend part of their childhood in a hospital, an orphanage or a residential children's home. Candidates may use examples such as Hodges and Tizard or Rutter as part of their explanation.

Privation refers to situations where children do not form an attachment with anyone. Candidates may use examples such as Hodges & Tizard or Curtiss's study of Genie as part of their explanation.

It is not sufficient just to name the example eg Genie.

For institutional care - 1 mark for naming orphanage, children's home or hospitalisation (not foster care). Second mark for some accurate elaboration eg children spend part of their childhood in an orphanage.

For privation - 1 mark for a brief explanation eg Genie didn't form an attachment. 2<sup>nd</sup> mark for accurate elaboration eg Genie didn't form an attachment because she was locked in a room with little contact with anyone.

### Assessment Objectives

Question	AO1	AO2	AO3
1a		2	
1b			4
1c			4
1d			4
1e	6		
2		4	
3	6	6	
4a			2
4b			1
4c			3
4d			4
4e			2
4f	4		
5a		2	
5b		2	
5c		4	
6	4	4	
7	4		
<b>Totals</b>	<b>24</b>	<b>24</b>	<b>24</b>

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