



**General Certificate of Education (A-level)  
January 2011**

**Psychology A**

**PSYA1**

**(Specification 2180)**

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

**Post-Standardisation**

***Mark Scheme***

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## **SECTION A: COGNITIVE PSYCHOLOGY AND RESEARCH METHODS**

### **Question 1**

**AO3 = 3 marks**      **Correct identification**

D  
C  
A

### **Question 2**

**AO1 = 6 marks**      **Accurate description of each strategy**

Candidates may select strategies based on visual imagery such as method of loci or peg word method (these can be credited as 2 different strategies); those based on organisation such as creating hierarchies or mind maps; acronyms eg ROYGBIV to remember colours of the rainbow or acrostics eg My Very Easy Method Just Speeds up Naming Planets to remember the order of planets; deep processing, chunking, rehearsal etc.

Context and state dependent recall could be relevant as long as the candidate makes their answer relevant to memory improvement.

Candidates may refer to the cognitive interview.

Any strategies which could lead to memory improvement in short or long term memory should be credited.

Simply naming “mnemonic” should not be credited.

In both cases 1 mark for identifying an appropriate strategy and 2 further marks for accurate elaboration which could include examples.

### **Question 3 a**

**AO3 = 1 mark**      **Correct identification of design.**

Independent groups. Accept “independent” but not “individual”. Unrelated and between groups/subjects are also credit-worthy.

### **Question 3 b**

**AO3 = 2 marks**      **Understanding of research design**

There may be differences between the groups as there are different participants in each condition.

More participants are required than for a repeated measures design.

1 mark for very brief or muddled answer eg individual differences or needs more participants.

2 marks as above.

### **Question 3 c**

**AO3 = 2 marks**      **Interpretation of graph.**

The graph shows the cognitive interview is effective. There were more correct statements made after the cognitive interview than after the traditional interview. There was no difference in the number of incorrect statements made.

1 mark for a very brief or muddled statement. Eg It shows it's effective.

2 marks for some elaboration with reference to either correct statements, incorrect statements or both.

**Question 3 d**

**AO2 = 2 marks      Application of knowledge of cognitive interview**

The answer should clearly relate to one or more of the main techniques used in a cognitive interview:-

Context reinstatement  
Recall from a changed perspective  
Recall in reverse order  
Report everything  
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 everything you saw.”

Further mark for application or elaboration. Eg “Please tell me everything you can remember about the robbery from the film you have just seen”, or “Report all the details you can remember even if they don’t seem very relevant.” 2 marks

Answers which could not relate to the film or robbery should be restricted to a maximum of 1 mark.

**Question 3 e**

**AO3 = 4 marks      Knowledge of research methods**

Investigator effects occur when the researcher’s behaviour or characteristics influence the research in some way. This includes the way the presence of the researcher may influence the participants.

0 marks for an incorrect answer or one which simply re-states the words eg “how the investigator effects research.”

1 mark very brief or muddled answer eg the researcher’s influence.

Maximum 2 marks for an accurate understanding of investigator effects but no reference to this experiment.

Candidates whose explanation of possible investigator effects in this experiment shows understanding of the term can be awarded 4 marks, even though there is no separate definition.

Eg The psychologist may expect the cognitive interview to be more effective than the standard interview. This may be unconsciously communicated to the participants through mannerisms such as smiling or frowning. (4 marks) There are different routes to 4 marks. Candidates could be stronger on definitions or stronger on application.

**Question 4**

**AO2 = 4 marks      Application of knowledge of the MSM**

According to the MSM rehearsal is needed to keep information in the STM or transfer it to LTM. The conversation with his friend will prevent Jamie from rehearsing the phone number. Reference to the limited capacity and duration of STM would also be relevant. Candidates may explain one of these in reasonable detail or refer to more than one more briefly.

1 mark for a very brief or muddled explanation eg He can’t rehearse it.  
Further marks for elaboration.

### Question 5

**AO1 = 6 marks**      **Description of the WMM**

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

Candidates may describe the original 1974 version of the model or include later additions such as the episodic buffer which was added in 2000.

The working memory model replaced the idea of a unitary STM. It suggests a system involving active processing and short-term storage of information.

Key features include the central executive, the phonological loop (consisting of two components, the phonological store and the articulatory control process), and the visuo-spatial sketch pad.

For 6 marks candidates should refer to components and processes.

Candidates may include a diagram. If this is accurately labelled and sufficiently detailed, this can potentially receive the full 6 marks.

Candidates are likely to evaluate the WMM in terms of its strengths and weaknesses.

Likely strengths include research support such as dual task studies and physiological evidence from brain scans. Candidates may offer a comparison with the MSM and suggest WMM gives a better account of STM.

Likely weaknesses include the fact that little is known about how the central executive works or evidence from brain studies suggesting the central executive is not unitary. Stating that WM focuses too much on STM and not on LTM is not creditworthy, although suggesting it isn't a complete model of memory could be.

Genuine comparison/contrast with alternative models of memory is creditworthy, but description eg of MSM is not.

<b>AO1 Knowledge and understanding</b>	<b>AO2 Application of knowledge and understanding</b>
<p><b>6 marks Accurate and reasonably detailed</b></p> <p>Accurate and reasonably detailed description of the WMM that demonstrates sound knowledge and understanding.                      There is appropriate selection of material to address the question.</p>	<p><b>6 marks Effective evaluation</b></p> <p>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 Less detailed but generally accurate</b></p> <p>Less detailed but generally accurate description of the WMM that demonstrates relevant knowledge and understanding.                      There is some evidence of selection of material to address the question.</p>	<p><b>5 - 4 marks Reasonable evaluation</b></p> <p>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</b></p> <p>Basic description that demonstrates some relevant knowledge and understanding of the WMM but lacks detail and may be muddled.                      There is little evidence of selection of material to address the question.</p>	<p><b>3 - 2 marks Basic evaluation</b></p> <p>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 Very brief/flawed</b></p> <p>Very brief or flawed description that demonstrates very little knowledge or understanding of the WMM. Selection and of information is largely or wholly inappropriate.</p>	<p><b>1 mark Rudimentary evaluation</b></p> <p>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></p> <p>No creditworthy material presented.</p>	<p><b>0 marks</b></p> <p>No creditworthy material presented.</p>

**SECTION B – DEVELOPMENTAL PSYCHOLOGY AND RESEARCH METHODS**

**Question 6 a**

**AO1 = 5 marks      Accurate outline of procedure**

In the strange situation about 100 middle-class American infants and their mothers took part. The infant's behaviour was observed during a set of pre-determined activities. These included introducing mother and child to the room, child playing with toys, stranger entering, mother leaving, stranger interacting with child, mother returning, child left on own, stranger returning and mother returning.

Findings are not required but reference to what the observers recorded (eg infants' willingness to explore or reunion behaviour) would be creditworthy so credit categorisation as relevant to how it is studied.

Reference to other studies of attachment by Ainsworth are also creditworthy eg in the Ganda project she observed babies in Uganda aged fifteen weeks to two years over a nine month period. She also interviewed their mothers. In the Baltimore study she used observations and interviews.

For 5 marks candidates answers need to be reasonably detailed. It is likely this would include some reference to observation of mothers and their infants, mothers leaving their infants and presence of a stranger.

<b>AO1</b> <b>Knowledge and understanding</b>
<b>5 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed answer that demonstrates sound knowledge and understanding of how Ainsworth studied types of attachment. There is appropriate selection of material to address the question.
<b>4 - 3 marks Less detailed but generally accurate</b> Less detailed but generally accurate answer that demonstrates relevant knowledge and understanding of how Ainsworth studied types of attachment. There is some evidence of selection of material to address the question.
<b>2 marks Basic</b> Basic answer that demonstrates some relevant knowledge and understanding of how Ainsworth studied types of attachment. 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 answer demonstrating very little knowledge of how Ainsworth studied types of attachment. Selection and presentation of information is largely inappropriate.
<b>0 marks</b> No creditworthy material.

**Question 6 b**

**AO3 = 4 marks      Application of validity**

There are a number of ways in which the strange situation could be criticised for lacking validity.

Candidates may refer to lack of population validity. The original study used American infants. The study tells us about how this particular group behaves and cannot be generalised to the wider population.

Ecological validity would also be relevant. The study was carried out in controlled conditions and might not be generalised to other situations.

Candidates may refer to one type of validity in detail, or more than one in less detail. Any criticism which relates to validity should be credited.

Answers which name different types of validity will receive credit, but this is not required for full marks.

1 mark for brief or muddled reference eg the Strange Situation doesn't really measure attachment.

Further marks for elaboration.

**Question 7 a**

**AO2 = 4 marks      Explanation of difference**

Privation occurs if children never have the opportunity to form an attachment. Rutter studied children who were looked after in Romanian orphanages where there was no opportunity to form attachments. Hodges and Tizard followed children who went into residential care before they had formed attachments.

Disruption of attachment occurs when children have formed an attachment and are then separated from their attachment figure. Robertson and Robertson studied John who was looked after in a residential nursery when his mother went into hospital.

1 mark for a very brief or muddled explanation of the difference.

Additional marks for further elaboration which makes the difference clear.

The examples can be general (eg children separated from mothers when she went into hospital). They do not need to relate to identifiable research.

**Question 7 b**

**AO2 = 4 marks      Application of knowledge**

Children who are not looked after by their parents need to have an opportunity to form an attachment with someone else. Candidates may refer to the advantages of foster care or adoption rather than institutional care.

Reference to key workers in day care would be relevant, as would parents staying with children in hospital.

Candidates may legitimately refer to children who are looked after by their parents. In this case reference to a sensitive period and/or the importance of high levels of sensitive responsiveness would be credit worthy.

There is a very wide range of potentially relevant material for this question including children who are cared for by their own parents. Candidates may give a reasonably detailed answer in relation to one area such as day care or refer to several areas more briefly.

1 mark for a very brief, muddled or poorly focussed answer on how child care has been influenced.

Further marks for elaboration.



**Question 8 a**

**AO2 = 4 marks      Application of knowledge**

Schaffer and Emerson found less than half of infants had a primary attachment to the person who usually fed them. Harlow's research suggested monkeys became attached to the soft surrogate mother rather than the one who fed it. Lorenz found goslings imprinted on the first moving object they saw.

Credit any relevant research findings.

Maximum 1 mark for identifying relevant research eg imprinting, Harlow's monkeys.

Further marks for accurate outline of relevant research findings.

**Question 8 b**

**AO1 = 5 marks      Description of evolutionary explanation of attachment**

It is likely that candidates will select Bowlby's evolutionary perspective as this is named in the specification.

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>5 marks Accurate and reasonably detailed</b> Accurate and reasonably detailed answer that demonstrates sound knowledge and understanding of an evolutionary explanation of attachment. There is appropriate selection of material to address the question.
<b>4-3 marks Less detailed but generally accurate</b> Less detailed but generally accurate answer that demonstrates relevant knowledge and understanding of an evolutionary explanation of attachment. There is some evidence of selection of material to address the question.
<b>2 marks Basic</b> Basic answer that demonstrates some relevant knowledge and understanding of an evolutionary explanation of attachment 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 or inappropriate</b> Very brief or flawed answer demonstrating very little knowledge of an evolutionary explanation of attachment. Selection and presentation of information is largely inappropriate.
<b>0 marks</b> No creditworthy material.

**Question 9 a**

**AO3 = 2 marks      Knowledge of a natural experiment**

This is a natural experiment because the independent variable, whether the children attend nursery or are looked after by a child minder is a naturally occurring variable.

1 mark for brief or muddled explanation eg the children went to nursery anyway.

2 marks for accurate explanation eg the psychologist didn't decide which type of day care the children attended.

Reference to an independent variable should be credited but is not essential for 2 marks.

Answers which refer only to research carried out in a real life situation should not receive credit.

**Question 9 b**

**AO3 = 2 marks      Outline of relevant method**

There are a number of ways in which the children's aggressive behaviour could be measured. These include observation and recording the behaviour in categories. Alternative methods such as interviews or questionnaires given to parents or teachers would be relevant.

1 mark for naming or identifying a relevant method eg observation, using a tally chart.

2nd mark for further detail relevant to measuring aggressive behaviour in children.

**Question 9 c**

**AO3 = 4 marks      Outline of ethical issues**

Candidates are likely to refer to informed consent from parents and maintaining confidentiality. Parents' right to withdraw child or data and possible deception would also be relevant. As children are five years old consent from the children could be credited as well as informed consent from parents. In addition to BPS guidelines, issues such as socially sensitive research should be credited.

For each, 1 mark for identification of a relevant issue.

2nd mark for some elaboration eg implications of the issue.

**Question 9 d**

**AO1 = 2 marks      Knowledge of peer relations**

Peer relations includes how well children get on with other children. This could include the child's ability to make friends and play co-operatively with other children.

1 mark for brief explanation eg getting on with others

2nd mark for some elaboration as above.