

AQA A-LEVEL PSYCHOLOGY

PSYCHOLOGY



EXAM QUESTION PACK

UNIT 4 (PSYA4) OLD SPECIFICATION PAPERS

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A-level PSYCHOLOGY (SPECIFICATION A)

Unit 4 Psychopathology, Psychology in Action and Research Methods

Tuesday 14 June 2016

Morning

Time allowed: 2 hours

Materials

For this paper you must have:

- an AQA 16-page answer book.

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Paper Reference** is PSYA4.
- In **Section A**, choose **one** topic.
Where appropriate, refer to theories and/or studies.
- In **Section B**, choose **one** topic. Answer **all** questions on the topic you choose.
Where appropriate, refer to theories and/or studies.
- In **Section C**, you should answer **all** questions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 83.
- In **Section A** and in **Section B**, you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Section A Psychopathology

Choose **one** topic from **Section A**.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Schizophrenia

0	1
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 Outline and evaluate **one or more** biological therapies for schizophrenia.
[8 marks + 16 marks]

Topic: Depression

0	2
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 Outline and evaluate **one or more** psychological explanations for depression.
[8 marks + 16 marks]

Topic: Phobic Disorders

0	3
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 Outline and evaluate **two** explanations for phobia.
[8 marks + 16 marks]

Topic: Obsessive Compulsive Disorder

0	4
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 Outline and evaluate **two** explanations for obsessive compulsive disorder.
[8 marks + 16 marks]

Section B Psychology in Action

Choose **one** topic from **Section B**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Media Psychology

A television company planned to produce a range of children's television programmes. The company wanted to develop programmes that had the best chance of promoting prosocial behaviours in the children who watch them. The company needed to decide on the types of programmes to produce, the kinds of characters to create and the behaviours displayed by these characters.

0	5
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Using your knowledge of psychological research into media influences on prosocial behaviour, what advice would you offer this television company to help them produce their children's programmes?

[10 marks]

0	6
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Outline how the Hovland-Yale Model explains the persuasive effects of television advertising.

[4 marks]

0	7
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Discuss **one or more** evolutionary explanations of the attraction of celebrity.

[4 marks + 6 marks]

Section B continues on the next page

Turn over ►

Topic: The Psychology of Addictive Behaviour

As a teenager Tony developed major interests in rock music and films and often dreamed of being a rock or film star. He also started to watch more and more television and now he usually spends several hours a day watching television programmes.

In his teens Tony became a heavy smoker, preferring the famous brands smoked by his idols. He also began to develop a gambling addiction. This started when he would regularly buy lottery scratch cards with any spare cash that he had.

Tony ended up heavily in debt and struggled with these addictions for several years. Recently, Tony has shown the first signs of turning his life around. He has shown some success with giving up smoking and has just completed a whole month without smoking at all. However, he has not yet had much success with reducing his gambling habit.

0	8
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Using your knowledge of media influences on addiction, explain how the media may have influenced the initiation, maintenance and/or reduction of Tony's addictive behaviours.

[10 marks]

0	9
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Outline the biological approach to explaining the initiation of a smoking addiction.

[4 marks]

1	0
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Outline **one** psychological intervention for reducing addictive behaviour. Evaluate the effectiveness of this intervention for reducing addictive behaviour.

[4 marks + 6 marks]

Topic: Anomalistic Psychology

Although not a believer in parapsychology, Margaret volunteered to play the part of receiver in an experiment on ESP. She was seated in a comfortable chair in the experimental room and given headphones to wear to eliminate background noise. Halved ping-pong balls were placed over her eyes, which had a red light shone on them. In the room next door the experimenter asked a 'sender' to select a target image from a choice of four and attempt to transmit this image mentally to Margaret.

Margaret was then removed from her state of sensory deprivation. The experimenter handed copies of the four images to her. She was asked to select which of these four images most resembled the target image that had been transmitted to her. Over several trials Margaret scored well above chance. The researchers concluded that their study provided evidence for the existence of ESP.

1	1
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Use your knowledge of methodological problems in paranormal cognition to explain why the researchers' conclusion might not be justified. Explain how a researcher might address these problems.

[10 marks]

1	2
---	---

Outline and evaluate **one** explanation for superstitious behaviour.

[4 marks + 6 marks]

1	3
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Outline findings of research into near death experiences.

[4 marks]

Turn over for Section C

Turn over ►

Section C Psychological Research and Scientific Method

Answer **all** questions in this section.

This topic carries 35 marks.

Topic: Psychological Research and Scientific Method

Read this information very carefully as you will need to refer to it in later questions.

An investigation was set up to test the effectiveness of a new anxiety management programme for school students. A small-scale investigation was carried out before the main study took place. This was used to check the appropriateness of the questionnaire used to measure anxiety. Twenty-three students of both sexes and aged 15–16 took part in this.

At the start of the small-scale investigation an anxiety score was obtained for each student. This score was based on a 20-item questionnaire designed by a team of psychologists working at a local university. The higher the score obtained, the greater the level of anxiety. This was followed by a 6-week programme of anxiety management involving weekly 30-minute sessions for all the students. After the programme had ended, a second anxiety score was obtained for each student using the same questionnaire.

- | | | | |
|---|---|---|-----------|
| 1 | 4 | State a directional hypothesis for this small-scale investigation. | [2 marks] |
| | | | |
| 1 | 5 | The researchers needed consent from parents/guardians for their children to take part in the investigation. Design a consent form that might have been given to parents/guardians asking for permission for their child to take part. | [5 marks] |
| | | | |
| 1 | 6 | The researchers wanted to establish the reliability and internal validity of their questionnaire. What is meant by the terms reliability and internal validity ? | [2 marks] |
| | | | |
| 1 | 7 | How might the researchers have checked the internal validity of their questionnaire? | [3 marks] |
| | | | |
| 1 | 8 | The researchers chose to use a one-tailed test to analyse their data. Give one reason for this choice. | [1 mark] |

A Wilcoxon Matched Pairs Signed Ranks Test was used to test for the significance of the difference between the anxiety scores at the start of the programme and after the programme had ended. No student's score remained the same. The calculated value of T was found to be 63.

Table 1: Critical (table) values of T

Level of significance for a one-tailed test			
N	0.05	0.01	0.005
21	67	58	42
22	75	65	48
23	83	73	54
24	91	81	61
25	100	89	68

Values of T that are equal to or less than the tabled value, are significant at or beyond the level indicated.

1 9

Using **Table 1** above, explain whether or not the results of the study are significant at the 5% level.

[3 marks]

When the main study was undertaken, 40 students were allocated randomly either to receive the 6-week anxiety reduction programme or to a control group which did not. The questionnaire was used to measure the anxiety levels of each student at the start and at the end of the 6-week programme. The change in each student's anxiety score was calculated for this period. The researchers found that the students who took part in the anxiety reduction programme showed a significant decrease in their anxiety scores compared with the control group.

2 0

Explain why a control group of students was necessary for the main study described above.

[3 marks]

2 1

Explain why participants were allocated randomly to the two conditions. How might the students have been allocated randomly to the two conditions?

[2 marks + 2 marks]

Section C continues on the next page

Turn over ►

Table 2: Median reduction in anxiety scores and ranges for all participants

	Median reduction in anxiety score	Range
Experimental group	12	16
Control group	2	5

2 | 2

Sketch a suitably labelled graph to illustrate how the data for both groups of students might be presented.

[4 marks]

2 | 3

What statistical test would you use to analyse the results from the main study? Give **three** reasons for your choice of test.

[4 marks]

2 | 4

The researchers had considered using a matched pairs design in their study. What is meant by the term 'matched pairs design'? How might a matched pairs design have been implemented for this investigation?

[2 marks + 2 marks]**END OF QUESTIONS****Copyright information**

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A-LEVEL

Psychology (Specification A)

PSYA4 Psychopathology, Psychology in Action and Research Methods
Mark scheme

2180
June 2016

Version 1.0: Final Mark Scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk.

PSYA4 RM Assessor Annotations Key 2016

Annotation	Usage
?	Unclear
^	Omission
BOD	Benefit of the doubt
Cross	Incorrect point
H Line	Text only, horizontal line that can be expanded
IRRL	Irrelevant
NAQ	Not answered question
REP	Repetition
SEEN	Page / material seen by examiner
Tick	Correct point
A01	A01 credit given
WA01	Weak A01
A02	A02/3 credit given
WA02	Weak / generic A02/3
ELAB	Elaboration
ENG	Engagement with stem
WENG	Weak / token engagement with stem
LF	Loses focus

Section A Psychopathology

Schizophrenia

Question 01

Outline and evaluate **one or more** biological therapies for schizophrenia.

[8 marks + 16 marks]

AO1 = 8 marks

AO1 credit is awarded for an outline of one or more biological therapies suitable for treating schizophrenia.

Note that:

- Examiners need to be alert to breadth-depth trade-offs depending on the number of therapies covered.
- Therapies can be interpreted broadly (e.g. drug treatment) or specifically (e.g. clozapine).
- Descriptions of psychological therapies such as cognitive-behavioural therapy and family interventions cannot receive credit.
- A maximum mark of 6 (top of reasonable band) can be awarded to answers that provide a generic description of a therapy without explicitly showing how it is used to treat schizophrenia.
- A maximum mark of 6 (top of reasonable band) can be awarded to answers which include no details of mode of action of the therapy.

Suitable therapies include:

- **Antipsychotic drugs** - used to reduce the effects of dopamine and work by blocking D2 receptors. Typical antipsychotics, e.g. chlorpromazine, block D2 receptors in several brain areas. Less typical antipsychotics, e.g. pimozide are often used as a last resort when other drugs have failed. Atypical antipsychotics, e.g. risperidone have less action on D2 receptors but also reduce serotonin activity.
- **ECT** – the use of ECT is not recommended by NICE in the UK except in very particular cases (mainly for catatonic schizophrenia). Electrodes, placed on the same or both sides of the head, deliver a brief electrical stimulus to an anaesthetised patient causing a seizure. The therapeutic mechanism is unknown, but decreased blood flow and decreased metabolism in the temporal lobes affect immediate responses. The therapy alters neurochemical levels (including dopamine) and also reduces the severity of any underlying affective symptoms.
- **Psychosurgery** – techniques such as leucotomies have been used historically. These involved cutting most of the neural connections to the frontal cortex, causing emotional blunting and reducing spontaneity and responsiveness. Answers in the effective band should show awareness of the fact that these techniques are no longer generally considered suitable.

AO1 8 marks Knowledge and understanding

8-7 marks - Sound Knowledge and understanding are accurate and well detailed. A good range of relevant material has been selected. There is substantial evidence of breadth and/or depth. Organisation and structure of the answer are coherent.
6-5 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. A range of relevant material has been selected. There is evidence of breadth and/or depth. Organisation and structure of the answer are reasonably coherent.
4-3 marks - Basic Knowledge and understanding are basic/relatively superficial. A restricted range of relevant material has been presented. Organisation and structure of the answer are basic.
2-1 marks - Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Answer lacks organisation and structure.
0 marks No creditworthy material

AO2/AO3 = 16 marks

Students achieve AO2/AO3 credit by evaluating the therapy (therapies) outlined. Students are likely to evaluate therapies in terms of effectiveness and appropriateness as these are mentioned in the specification.

Note that:

- Material on psychological therapies is only creditworthy if it is used explicitly to offer sustained critical commentary of a biological therapy.
- Methodological evaluation of research studies is only creditworthy if the implications for the therapy are made explicit.
- Undeveloped generic evaluations (e.g. more scientific, supports the nature side of the nature-nurture hypothesis, determinist, reductionist) should receive rudimentary credit.

Evaluation might include some of the following:

Drug therapies

- Outcome studies.
- Problems of measuring effectiveness e.g. when to measure, how to measure, what criteria to choose, appropriate comparison groups.
- Wide range of symptoms and sub-types – treatments might be effective for some but not others.
- Placebo effects.
- Factors affecting the choice of treatment e.g. accuracy of original diagnosis.
- Reliability and validity of research evidence.
- The extent to which generalisations can be made/issues concerning the allocation of patients to treatment groups.

- Antipsychotics have long been established as a relatively cheap, effective treatment, which rapidly reduce symptoms and enable many people to live relatively normal lives (May, 1981).
- The atypical group appear to be the most effective, targeting a broader range of symptoms including negative symptoms such as apathy.
- Antipsychotics produce a range of side effects including tardive dyskinesia (TD) and weight gain. These lead a proportion of patients to discontinue treatment.
- Typical antipsychotics are associated with higher levels of side effects than atypical antipsychotics.
- About 30% of patients appear to be drug resistant.
- Drug treatments are generally more effective for positive symptoms than negative symptoms.
- Relapse is likely when drugs are discontinued.
- Drugs treat symptoms rather than causes.
- Ethical issues including informed consent, and the dehumanizing effects of some treatments.

ECT

- Outcome studies.
- Its more recent use in conjunction with antipsychotics for drug resistant patients.
- Side effects such as memory loss.
- Issues associated with informed consent.

Psychosurgery

- Outcome studies.
- Side effects such as permanent loss of function.
- Psychosurgery has scarcely been used as a treatment for schizophrenia since the early 1970's when it was replaced by drug treatment.

AO2/3**16 marks****Evaluation/commentary****16-13 marks - Effective**

Evaluation/commentary demonstrate sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

12-9 marks - Reasonable

Evaluation/commentary demonstrate reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

8-5 marks - Basic

Evaluation/commentary demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

4-1 marks - Rudimentary

Evaluation/commentary are rudimentary, demonstrating a very limited understanding.

The answer is weak, muddled and incomplete.

Material is not used effectively and may be mainly irrelevant.

Deficiency in expression of ideas results in confusion and ambiguity.

The answer lacks structure, often merely a series of unconnected assertions.

Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Depression**Question 02**

Outline and evaluate **one or more** psychological explanations for depression.

[8 marks + 16 marks]

AO1= 8 marks

AO1 credit is awarded for an outline of one or more psychological explanations of depression.

Note that:

- An explanation can be interpreted broadly (e.g. psychodynamic) or specifically (e.g. anger turned inwards on the self).
- Examiners need to be alert to breadth-depth trade-offs depending on the number of explanations covered.

The main psychological explanations of depression are:

- Cognitive - Beck's (1967) cognitive triad (negative thoughts about the self, the world and the future); cognitive distortions (overgeneralization and magnification of the significance of events).
- Cognitive-behavioural - Abramson (1978) maladaptive attribution style, self-blaming and hopelessness as a result of failure.
- Behavioural - Lewinsohn (1974) lack of positive reinforcement leading to social withdrawal and self-perpetuating cycle.
- Socio-cultural – Brown and Harris (1989) stressful life events as a trigger for depression.
- Psychodynamic – importance of unconscious forces and early experience in oral stage. Loss leading to anger which is turned inwards and the introjections of hostility, loss and dependency.
- Learned helplessness (Seligman, 1975) may be presented as a behavioural or cognitive explanation or as part of a combined cognitive-behavioural explanation.

AO1 8 marks**Knowledge and understanding****8-7 marks - Sound**

Knowledge and understanding are accurate and well detailed.
A good range of relevant material has been selected.
There is substantial evidence of breadth and/or depth.
Organisation and structure of the answer are coherent.

6-5 marks - Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
A range of relevant material has been selected.
There is evidence of breadth and/or depth.
Organisation and structure of the answer are reasonably coherent.

4-3 marks - Basic

Knowledge and understanding are basic/relatively superficial.
A restricted range of relevant material has been presented.
Organisation and structure of the answer are basic.

2-1 marks - Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Answer lacks organisation and structure.
0 marks No creditworthy material

AO2/3 = 16 marks

Students achieve AO2/AO3 credit by evaluating the psychological explanation (explanations) of depression outlined.

Note that:

- Material on biological explanations is only creditworthy if it is used explicitly to offer sustained critical commentary of a psychological explanation.
- Methodological evaluation of research studies is only creditworthy if the implications for the explanation are made explicit.
- Undeveloped generic evaluations (e.g. determinist, reductionist) should receive rudimentary credit.

Potential material includes:

- Consideration of research evidence that supports or challenges an explanation (e.g. Hiroto and Seligman, 1974 - students exposed to uncontrollable events were more likely to fail subsequent cognitive tasks; Bates et al., 1999, - cognitive; Brown and Harris, 1989 and Kendler et al., 1995 - sociocultural; Bifulco et al., 1992 - psychodynamic (higher rates of depression in women who had suffered maternal loss in childhood)).
- Issues specific to each explanation, e.g. the cognitive explanation is better at explaining the maintenance of the disorder rather than the initial cause; limited evidence for the psychodynamic concepts such as introjection of hostility; legitimacy of Seligman's evidence on LH in relation to human depression.
- Debate about the relative importance of different causal factors.
- The usefulness of a combined approach to explaining depression.
- Appropriate use of relevant debates such as reductionism - holism and free will - determinism.
- Although the question is concerned with explanations, the effectiveness of therapies could be used as a means of evaluation. Better students will be aware of the treatment aetiology fallacy.
- Sustained comparison with alternative explanations.
- The possibility of multiple contributory factors, for example, a discussion of the diathesis-stress model as a way of combining psychological and biological factors.

AO2/3	16 marks	Evaluation/commentary
16-13 marks - Effective		
Evaluation/commentary demonstrate sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.		
12-9 marks - Reasonable		
Evaluation/commentary demonstrate reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.		
8-5 marks - Basic		
Evaluation/commentary demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.		
4-1 marks - Rudimentary		
Evaluation/commentary are rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.		
0 marks		
No creditworthy material is presented.		

Phobic disorders

Question 03

Outline and evaluate **two** explanations for phobia.

[8 marks + 16 marks]

AO1 = 8 marks

AO1 credit is awarded for an outline of **two** explanations of phobic disorders.

Note that:

- It is up to the student to identify the 2 explanations being presented.
- As two explanations are required, examiners should be mindful of the amount of depth/detail which can be reasonably expected.
- Where more than two explanations are presented all should be considered and the best two credited.
- Partial performance criteria apply if only one explanation is provided.
- Explanations can be interpreted broadly (e.g. behaviourist) or specifically (e.g. classical conditioning).
- It is acceptable for both explanations to be drawn from the same model.
- Description of a case study such as Little Hans or Albert B can be treated as AO1 material if presented as an explanation of phobia.

Likely explanations include:

- Genetics - reactive autonomic nervous system/autonomic liability (Lacey, 1967); genetic trait of inhibition /shyness (Kagan, 1997) and genes regulating serotonin (Lesch et al., 1996). Given the difficulty of describing genetic explanations, straightforward description of family history / twin studies) can receive AO1 credit. Phobias are more common in relatives of phobics than in the general population (Solyom et al., 1974; Fyer, 2006). Twin studies (e.g. Torgerson, 1983; Skre, 2000 and Kendler et al., 2001) demonstrate higher concordance rates in MZ than DZ twins. The CR for specific phobias is highest of all (e.g. Ost, 1992 - 64% of blood-injection phobics had at least one first degree relative with the same phobia).
- Biochemical / endocrine explanations - low levels of GABA lead to increased arousal/over activity of sympathetic nervous system (noradrenaline) or under activity of parasympathetic system (GABA): Stein (1996) argues that abnormal levels of serotonin and dopamine are also implicated. Also changes in ACTH levels.
- Neuroanatomy - increased blood flow in the limbic system, particularly the amygdala.
- Evolutionary - preparedness, prepotency, e.g. benefits to survival to have a fear of certain potentially dangerous situations.
- Behavioural - classical conditioning (conditioned reflex), operant conditioning (positive/negative reinforcement) and social learning (observation/modelling).
- Psychodynamic - phobias arise to defend the ego against repressed anxiety. Anxiety is displaced onto a phobic object which symbolises the original conflict.
- Cognitive-behavioural - irrational thoughts and beliefs underlie phobia.

AO1 8 marks Knowledge and understanding

8-7 marks - Sound Knowledge and understanding are accurate and well detailed. A good range of relevant material has been selected. There is substantial evidence of breadth and depth. Organisation and structure of the answer are coherent.
6-5 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. A range of relevant material has been selected. There is evidence of breadth and/or depth. Organisation and structure of the answer are reasonably coherent. <i>Partial performance: Coverage of one explanation is sound (maximum 5 marks).</i>
4-3 marks - Basic Knowledge and understanding are basic/relatively superficial. A restricted range of relevant material has been presented. Organisation and structure of the answer are basic. <i>Partial performance: Coverage of one explanation is reasonable.</i>
2-1 marks - Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Answer lacks organisation and structure. <i>Partial performance: Coverage of one explanation is basic.</i>
0 marks No creditworthy material

AO2/3 = 16 marks

Students achieve AO2/3 credit for evaluation of the two explanations presented as AO1.

Note that:

- Because evaluation can be generic, partial performance criteria do not apply.
- Material on further explanations is only creditworthy if it is used explicitly to offer sustained critical commentary on the two explanations offered.
- Methodological evaluation of research studies is only creditworthy if the implications for the explanation are made explicit.
- Undeveloped generic evaluations (e.g. more scientific, supports the nature side of the nature-nurture hypothesis, determinist, reductionist) should receive rudimentary credit.

Evaluation will depend on the explanations offered, but is likely to include supporting / contradictory research evidence.

Likely routes to AO2/3 credit include:

- Genetic explanation: Limitations of family / twin studies
- Biochemical / endocrine explanations: Merckelbach et al. (1996) found higher levels of ACTH in a sample of phobics. Van der Wee (2008) found abnormal levels of dopamine and serotonin. Cryan et al. (2005) found that increasing GABA reduced anxiety in primates and humans. Stein (1996) argues that abnormal levels of serotonin and dopamine are also implicated.

- Neuroanatomical explanations: Scanning studies: Rauch (1995) found increased blood flow in the limbic systems of phobics using PET & Ahs et al. (2009) found a relationship between ratings of distress and amygdala activity in spider/snake phobics using PET.
- Evolutionary explanations: Preparedness in fear conditioning (Ohman).
- Behavioural explanations: Conditioned fear response in Albert B (Watson and Rayner); Mineka et al. (1984) study of rhesus monkeys.
- Psychodynamic explanations: Case study of Little Hans.
- Cognitive-behavioural explanations: These support the role of cognition, notably the over-estimation of danger/distorted thinking in phobics (Tomarken, 1989).

Other sources of AO2/3 credit include:

- The effectiveness of therapies (e.g. drug treatments, systematic desensitisation) – stronger students will be aware of the treatment aetiology fallacy.
- Implications of explanations (for example responsibility / blame).
- Different types of phobia e.g. agoraphobia, social phobia which may have different causal factors.
- The possibility of multiple contributory factors, for example, a discussion of combining behavioural and evolutionary explanations.
- Comparison with alternative explanations of phobias.
- Appropriate use of relevant debates, such as reductionism – holism, free-will – determinism.

AO2/3 16 marks Evaluation/commentary

16-13 marks - Effective

Evaluation/commentary demonstrate sound analysis, understanding and interpretation.
The answer is well focused and shows coherent elaboration and/or a clear line of argument.
Ideas are well structured and expressed clearly and fluently.
Consistently effective use of psychological terminology.
Appropriate use of grammar, punctuation and spelling.

12-9 marks - Reasonable

Evaluation/commentary demonstrate reasonable analysis and understanding.
The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident.
Most ideas are appropriately structured and expressed clearly.
Appropriate use of psychological terminology.
Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

8-5 marks - Basic

Evaluation/commentary demonstrate basic, superficial understanding.
The answer is sometimes focused and shows some evidence of elaboration.
Expression of ideas lacks clarity.
Limited use of psychological terminology.
Errors of grammar, punctuation and spelling are intrusive.

4-1 marks - Rudimentary

Evaluation/commentary are rudimentary, demonstrating a very limited understanding.
The answer is weak, muddled and incomplete.
Material is not used effectively and may be mainly irrelevant.
Deficiency in expression of ideas results in confusion and ambiguity.
The answer lacks structure, often merely a series of unconnected assertions.
Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Obsessive Compulsive Disorder**Question 04**Outline and evaluate **two** explanations for obsessive compulsive disorder.**[8 marks + 16 marks]****AO1 = 8 marks**AO1 credit is awarded for an outline of **two** explanations of OCD.

Note that:

- It is up to the student to identify the 2 explanations being presented.
- As two explanations are required, examiners should be mindful of the amount of depth/detail which can be reasonably expected.
- Where more than two explanations are presented all should be considered and the best two credited.
- Partial performance criteria apply if only one explanation is provided.
- Explanations can be interpreted broadly (e.g. behaviourist) or specifically (e.g. social learning).
- It is acceptable for both explanations to be drawn from the same model.

Likely explanations include:

- Genetics: There is some evidence of a tendency to inherit OCD. Genes implicated in OCD include sapap3 gene (Feng et al., 2007), a gene which regulates the production of COMT and a glutamate transporter gene (SLC1A1). Given the difficulty of describing genetic explanations, straightforward description of family history / twin studies) can receive AO1 credit. Arbor (2006) found OCD is 9 x more frequent in first degree relatives than the general population. There are higher concordance rates in MZ twin pairs (between 68 - 88 %) than in DZ twin pairs (28 - 47 %) - Carey and Gottesman, 1981; Rasmussen and Tsuang, 1986; Billett et al., 1998.
- Biochemistry: Serotonin deficiency and high levels of dopamine.
- Neuroanatomy: Overactivity/damage to basal ganglia and caudate nucleus (Rapoport, 1990); dysfunction within the orbitofrontal cortex or 'worry circuit'.
- Evolutionary explanations: Focus on the adaptive advantages of hoarding, grooming, etc.
- Psychodynamic: Conflict at the anal stage.
- Behavioural: Classical conditioning, negative reinforcement, Mowrer's two process theory.
- Cognitive: Faulty thinking, cognitive triad.

AO1 8 marks Knowledge and understanding

8-7 marks - Sound Knowledge and understanding are accurate and well detailed. A good range of relevant material has been selected. There is substantial evidence of breadth and depth. Organisation and structure of the answer are coherent.
6-5 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. A range of relevant material has been selected. There is evidence of breadth and/or depth. Organisation and structure of the answer are reasonably coherent. <i>Partial performance: Coverage of one explanation is sound (maximum 5 marks).</i>
4-3 marks - Basic Knowledge and understanding are basic/relatively superficial. A restricted range of relevant material has been presented. Organisation and structure of the answer are basic. <i>Partial performance: Coverage of one explanation is reasonable.</i>
2-1 marks - Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Answer lacks organisation and structure. <i>Partial performance: Coverage of one explanation is basic.</i>
0 marks No creditworthy material

AO2/3 = 16 marks

Students achieve AO2/3 credit for evaluation of the two explanations presented as AO1.

Note that:

- Because evaluation can be generic, partial performance criteria do not apply.
- Material on further explanations is only creditworthy if it is used explicitly to offer sustained critical commentary on the two explanations offered.
- Methodological evaluation of research studies is only creditworthy if the implications for the explanation are made explicit.
- Undeveloped generic evaluations (e.g. more scientific, supports the nature side of the nature-nurture hypothesis, determinist, reductionist) should receive rudimentary credit.

Evaluation will depend on the explanations offered, but is likely to include supporting / contradictory research evidence.

Likely routes to AO2/3 credit include:

- Support for the genetic explanation: Animal studies (e.g. Feng, 2007) have shown that mice bred to lack the sapap3 gene spend excessive amounts of time grooming and show higher signs of anxiety.
- Difficulties disentangling genetic and environmental influences.

- Effectiveness of treatments based on the approach can also be a way of gaining credit. SSRI's inhibit over activity in the OFC and provide an effective treatment for about 50% of OCD sufferers (e.g. Murphy et al., 1996). However, some studies have indicated that increasing serotonin can worsen symptoms (Hollander et al., 1992).
- There is some support for the role played by basal ganglia. Characteristics of OCD are also found in sufferers of Parkinson's disease and Tourettes syndrome, both of which involve changes to basal ganglia (Rapoport, 1990). PET scans demonstrated increased activity in the basal ganglia of compulsion sufferers compared with control participants (Rauch et al., 1994). However, other neuroimaging studies have shown less support.
- OCD patients have less grey matter in OFC and the right frontal regions of the brain (Menses, 2007).
- Difficulties in establishing cause and effect in neuroanatomical/neurochemical explanations.
- Support for Mowrer's 2 process theory (eg Rachman and Hodgson, 1980).
- Rat-man case study (Freud, 1909).
- The possibility of multiple contributory factors, for example, a discussion of the diathesis-stress model as a way of combining psychological and biological factors.

AO2/3**16 marks****Evaluation/commentary****16-13 marks - Effective**

Evaluation/commentary demonstrate sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

12-9 marks - Reasonable

Evaluation/commentary demonstrate reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

8-5 marks - Basic

Evaluation/commentary demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

4-1 marks - Rudimentary

Evaluation/commentary are rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Section B Psychology in Action

Media Psychology

Question 05

Using your knowledge of psychological research into media influences on pro-social behaviour, what advice would you offer this television company to help them produce their children's programmes?

[10 marks]

AO2/3 = 10 marks

AO2/3 credit is awarded for advice to the television company based on the effective use of relevant psychological research/explanations of pro-social behaviour.

Note that:

- **Answers that do not engage with the scenario can receive a maximum of 4 marks.**
- Material on antisocial behaviour cannot receive credit (e.g. Bandura's bobo dolls) unless explicitly shaped towards pro-social behaviour in television programmes.
- Material from other areas of the media can receive credit only if shaped towards television.
- Evaluation of research (e.g. control / contradictory findings/correlation and causality/sampling issues) can only receive credit if used to shape the advice offered to the TV company.

For AO2/3 credit students may suggest advice based on the relevant use of explanations of pro-social behaviour such as:

- providing positive role models who can be observed / imitated / reinforced (social learning). The design of the TV programmes might be linked to specific features of social learning theory (e.g. children observing and imitating role models who are similar to themselves in terms of age, gender and ethnicity).
- producing programmes which result in pro-social mental routines being stored in memory as schemas / scripts and used to guide behaviour (cognitive priming).

Appropriate research support might include:

- Watching a helpful model is likely to result in developing a social norm that encourages pro-social behaviour and which will be socially reinforced (Sprafkin et al., 1975 – Lassie).
- Providing pro-social cues in programmes designed for a parent and child to watch together so that parents might discuss/clarify the content (Austin, 1993 – Watch with Mother).
- Linking with a follow-up lesson can demonstrate gains in pro-social behaviour (Singer and Singer, 1998 – Barney and Friends).
- Designing programmes to challenge stereotypes (Johnston and Ettema, 1986 – Freestyle study and gender stereotypes).
- Taking the age group targeted by the programme into account. Older children are better able to understand moral messages (McKenna and Ossoff, 1998 – Power Rangers) but may be more set in their ways. Younger children are more affected by the media than older children (Mares, 1996).

- Increasing the number of positive interactions in programmes can lead to increased helpfulness and cooperation (Friedrich and Stein, - Mister Rogers' Neighborhood).
- Setting pro-social goals against antisocial acts in the same programme can have benefits (Lovelace and Huston, 1983).
- Making the moral message clear (Rosenkoetter, 1999 - pro-social television only influences children if they understand the moral message behind it).

Commentary might also mention that the effects of pro-social media have often been reported as short term. However long term effects have been reported – e.g. O'Connor, 1980 found that children who avoided playing with other children showed a long term change in their behaviour after watching a programme that modelled this behaviour.

AO2/AO3 10 marks Explanation/application

9-10 marks - Effective Explanation/application demonstrates sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks - Reasonable Explanation/application demonstrates reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks - Basic Explanation/application demonstrates basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks - Rudimentary Explanation/application is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material.

Question 06

Outline how the Hovland-Yale Model explains the persuasive effects of television advertising.

[4 marks]

AO1 = 4 marks

AO1 credit is awarded for application of the Hovland-Yale Model to explaining the persuasive effects of television advertising.

Note that:

- Sound answers will make reference to all three components of the model.
- The material presented should apply to the persuasive effects of television advertising.
- No credit can be awarded for evaluative material.

The Model has 3 main components which can all influence attitude change in an audience through a persuasive communication:

- The source of the communication in the television advert – e.g. the communicator's credibility, expertise, attractiveness, celebrity status.
- The nature of the communication in the television advert – e.g. the quality and sincerity of the message, the medium, use of fear, one- and two-sided messages.
- The nature of the audience for the television advert – e.g. intelligence, self-esteem, culture and age.

AO1 4 marks Knowledge and understanding

4 marks - Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks - Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark - Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.
0 marks No creditworthy material

Question 07

Discuss **one or more** evolutionary explanations of the attraction of celebrity.

[4 marks + 6 marks]

AO1 = 4 marks

AO1 credit is awarded for an outline of one or more evolutionary explanations of the attraction of celebrity.

Note that:

- Where more than one explanation is provided examiners should be sensitive to breadth/depth trade-offs.
- As only four marks are available examiners should be mindful of the amount of depth/detail which can be reasonably expected.
- Other explanations (e.g. entertainment as play theory and leisure time theory) can be used as long as links are made to attraction to celebrity.
- Social psychological explanations cannot receive credit.

Evolutionary explanations emphasize the potential benefits to survival/reproduction through the mechanisms of natural and sexual selection. Likely explanations include:

- The prestige hypothesis: Individuals with superior skills and knowledge (leaders/celebrities) are identified and copied leading to increased chances of reproduction. It is difficult to work out which specific behaviours lead to success, therefore general imitation of successful individuals (clothing etc.) is a good strategy.
- Ornamental mind theory/creativity – creativity was linked to superior problem solving therefore an indicator of fitness in the past. Music, art and humour were valued attributes in mate choice and make modern celebrities attractive. Neophilia (the love of novelty) may also be related to creativity.
- Potential for education - close observation of successful people provides useful education about what to wear, consequences of cheating on partner etc.
- Gossip theory: Talking about high status individuals could help individuals be more like them which might improve their attractiveness and chance of finding a mate.

AO1 4 marks

Knowledge and understanding

4 marks - Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks - Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark - Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.

0 marks

No creditworthy material

AO2/3 = 6 marks

AO2/AO3 credit is awarded for discussion and commentary on the evolutionary explanation of attraction to celebrity provided.

Note that:

- There is no partial performance penalty for AO2/3 if the student presents more than one explanation as AO1.
- Comparison with alternative explanations can receive credit but only if the links made with the explanation under discussion are sustained.

Commentary can be focused on the explanation presented and/or the evolutionary approach more generally:

- Archaeological evidence demonstrates the existence of art forms (cave painting etc.) from prehistory suggesting that creativity may well have been selected for.
- The assumption that all behaviours have survival value is disputed by some evolutionary psychologists.
- Evolutionary explanations are 'post hoc' and are almost impossible to test scientifically.
- There is considerable support for psychological explanations of attraction to celebrity, notably those rooted in attachment theory and also links to low self-esteem. These can gain credit when used as critical commentary on evolutionary explanations.

AO2/3 6 marks Commentary/evaluation**6 marks - Effective**

Commentary/evaluation demonstrates sound analysis and understanding.
Application of knowledge is well focused and effective.
Ideas are well structured and expressed clearly and fluently.

5-4 marks - Reasonable

Commentary/evaluation demonstrates reasonable analysis and understanding.
Application of knowledge is generally focused.
Most ideas are appropriately structured and expressed clearly.

3-2 marks - Basic

Commentary/evaluation demonstrates basic analysis and superficial understanding.
Application of knowledge is sometimes focused.
Expression of ideas lacks clarity.

1 mark - Rudimentary

Commentary/evaluation is rudimentary demonstrating very limited understanding.
The answer is weak, muddled and may be largely irrelevant.
Deficiency in expression of ideas results in confusion and ambiguity.

0 marks

No creditworthy material is presented.

The Psychology of Addictive Behaviour

Question 08

Using your knowledge of media influences in addiction, explain how the media may have influenced the initiation, maintenance and/or reduction of Tony's addictive behaviours.

[10 marks]

AO2/AO3 = 10 marks

AO2/3 credit is awarded for an explanation of how the media may have influenced the initiation, maintenance and/or reduction of Tony's addictive behaviours.

Note that:

- There is no partial performance in this question and examiners need to be aware of breadth-depth trade-offs when marking students' answers.
- **Answers that do not engage with the scenario can receive a maximum of 4 marks.**
- Speculative material on media influences that are not raised in the stem cannot receive credit.

We are told that:

- Tony has a longstanding major interest in films and television from his teens.
- with regard to smoking he has a preference for well-known brands.
- he has made progress with giving up smoking.
- he has made little progress with his gambling addiction.

Ways in which the media may have helped to initiate and/or maintain Tony's addictive behaviour include:

- adverts promoting smoking/gambling (e.g. National Lottery).
- portrayal of smoking in films (e.g. Hazan, 1994; Sargent, 2007; Waylen, 2011).
- role models (e.g. celebrities) glamourizing substance use or gambling.

Ways in which media may have helped to reduce Tony's smoking behaviour include:

- regulations restricting the advertising of tobacco.
- advertising bans (differences here between smoking and gambling).
- use of media (e.g. television) to deliver public health campaigns targeted at smoking - TV is an ideal medium for getting a message across regarding the dangers of addiction.

Ways in which media may have contributed to the maintenance of Tony's gambling behaviour include:

- relaxation of restrictions on gambling advertising (e.g. Gambling Act 2005 in Britain).
- The broadcasting of adverts which make maintenance of an existing gambling habit more likely (e.g. Deverensky et al., 2010).

Students may also earn AO2/3 credit for demonstrating an understanding of how methodological difficulties may have explicitly affected the conclusions presented concerning Tony's addictive behaviour. E.g. changes in attitudes to smoking, drinking and gambling which make comparisons over time difficult.

AO2/AO3 10 marks Explanation/application

9-10 marks - Effective Explanation/application demonstrates sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks - Reasonable Explanation/application demonstrates reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks - Basic Explanation/application demonstrates basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks - Rudimentary Explanation/application is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material.

Question 09

Outline the biological approach to explaining the initiation of a smoking addiction. **[4 marks]**

AO1= 4 marks

AO1 credit is awarded for an outline of the biological approach to explaining the initiation of a smoking addiction.

Note that:

- No credit can be awarded for material on maintenance or relapse unless linked specifically to how an addiction to smoking is initiated.
- No credit can be awarded for evaluative material.
- The biological approach may be presented generically or students may focus on a single biological explanation e.g. genetic or neurochemical. Examiners need to be aware of a breadth / depth trade off when a generic approach has been taken.

Likely content includes:

- The processes of physical dependency and tolerance in the development of a smoking addiction.
- Genetic factors. The findings of research studies can be credited here.
- Neurochemistry and the dopamine reward system.
- The endogenous opioid system (enkephalin and endorphins).
- Nicotine regulation model (Schachter 1977).

AO1 4 marks Knowledge and understanding

4 marks - Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks - Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark - Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.
0 marks No creditworthy material

Question 10

Outline **one** psychological intervention for reducing addictive behaviour. Evaluate the effectiveness of this intervention for reducing addictive behaviour. **[4 marks + 6 marks]**

AO1 = 4 marks

AO1 credit is awarded for an outline of any one relevant psychological intervention that is used for the reduction of any form of addictive behaviour. This may be in the form of a study describing a psychological intervention.

Note that:

- As only four marks are available examiners should be mindful of the amount of depth/detail which can be reasonably expected.
- Biological interventions cannot be credited.
- Public health interventions can only be credited if the student clearly addresses a psychological component within the intervention (e.g. banning advertising must be explicitly linked to social learning theory).
- A maximum mark of 2 can be awarded if material is not shaped towards the reduction of addictive behaviour.
- Where more than one psychological intervention is provided the best should be credited.

Likely interventions include:

- Cognitive behaviour therapy.
- CBT based approaches such as relapse prevention.
- Behavioural approaches including aversion therapy, contingency contracting and cue exposure.
- Motivational enhancement therapy.
- Eclectic approaches such as the matrix model.
- Those based on the theory of planned behaviour.

AO1 4 marks Knowledge and understanding

4 marks - Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks - Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark - Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.
0 marks No creditworthy material

AO2/3 = 6 marks

AO2/3 credit is awarded for evaluating the effectiveness of the psychological intervention that has been outlined as AO1.

Note that:

- Evaluation of research studies is only creditworthy if the implications for the effectiveness of the intervention are made clear.

Likely avenues for commentary include:

- Outcome research.
- Comparison of success with other interventions (note that links to the intervention being evaluated must be sustained for credit to be awarded).
- Short vs. long term effectiveness.
- Whether an intervention tackles the underlying cause of an addiction.
- Client compliance with the requirements of the intervention.

AO2/3 6 marks Evaluation/commentary

6 marks - Effective Evaluation/commentary demonstrates sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
5-4 marks - Reasonable Evaluation/commentary demonstrates reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-2 marks - Basic Evaluation/commentary demonstrates basic analysis and superficial understanding. Application of knowledge is sometimes focused. Expression of ideas lacks clarity.
1 mark - Rudimentary Evaluation/commentary is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Anomalistic Psychology

Question 11

Use your knowledge of methodological problems in paranormal cognition to explain why the researchers' conclusion might not be justified. Explain how a researcher might address these problems. **[10 marks]**

AO2/3 (Application) = 10 marks

AO2/3 credit is awarded for explanations of methodological problems raised by the experiment described and of how these methodological problems might be addressed.

Note that:

- There is no partial performance in this question with regard to the number of problems a student identifies. Examiners need to be aware of breadth-depth trade-offs when marking answers.
- If a student explains one or more methodological problems without suggesting how the problem(s) concerned might be addressed the maximum mark achievable is 5 (top of the basic band).
- **Answers that do not engage with the scenario can receive a maximum of 4 marks.**
- Speculative problems/improvements which are not linked to the stimulus material cannot achieve credit.

The stem above is an outline of a Ganzfeld ESP procedure. This involves the sensory deprivation of Margaret (the receiver) by using headphones and halved ping pong balls over her eyes. The sender randomly selects one of four images to send telepathically to Margaret, who then attempts to identify the image by selecting it from a set of images. If she is able to read the thoughts of others, she should be able to pick the target at greater than chance level over several trials.

The above procedure raises methodological problems:

- Sensory leakage. Margaret and the sender are in adjoining rooms, so information could be transmitted by, for example, overhearing comments from next door.
- Ineffective randomisation: the selection of the target image is done by the sender rather than randomly.
- Experimenter influences – the experimenter is in direct contact with both the sender and Margaret and may have provided unintended cues.
- Handling cues. The images are passed to Margaret by hand. Therefore the target images could have a bent corner or mark on the picture that acts as a cue for the receiver.
- Forced choice.

The methodological problems might be addressed by the improvements to the technique such as those brought by the auto-Ganzfeld procedure.

Improvements might include:

- Fully sound-proofing the receiver, e.g. by playing white noise into the headphones.
- Having the sender and receiver kept in separate rooms which are unconnected and electro magnetically shielded.

- Preventing direct interaction between the experimenter / sender / Margaret, e.g. by instructing Margaret to select the target image from a computer screen rather than from images handed to her.
- Computerised selection of images - the target image should be randomly selected from the set of images and the sender told which image to transmit.
- Free choice

Research used appropriately as support for the above can achieve credit.

AO2/AO3 10 marks Explanation/application

9-10 marks - Effective Explanation/application demonstrates sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks - Reasonable Explanation/application demonstrates reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks - Basic Explanation/application demonstrates basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks - Rudimentary Explanation/application is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material.

Question 12

Outline and evaluate **one** explanation for superstitious behaviour.

[4 marks + 6 marks]

AO1 = 4 marks

AO1 credit is awarded for an outline of one explanation of superstitious behaviour.

Note that:

- As only four marks are available examiners should be mindful of the amount of depth/detail which can be reasonably expected.
- Where more than one explanation is provided the best should be credited.
- Descriptions of superstitious behaviours and anecdotal material cannot receive credit.
- Material that is not related to an *explanation* of superstition cannot receive credit.

Relevant explanations include:

- Behavioural (operant conditioning): Accidental pairing of a random behaviour with a positive reinforcer leads to a link between the two which persists as a ritualistic behaviour (Skinner, 1948).
- Evolutionary: The need for control/illusion of control of one's environment in stressful situations (Malinowski, 1948; Watson et al., 2007). It is preferable to assume two unrelated events are linked (type 1 error) than to miss a genuine link (type 2 error). An occasional type 1 error is tolerated to avoid type 2 errors.
- Cultural - provide a sense of control.

Magical thinking is acceptable as an explanation - it can lead to people dealing more confidently with their environment as they expect good things to happen.

AO1 4 marks Knowledge and understanding

4 marks - Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks - Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks - Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark - Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.
0 marks No creditworthy material

AO2/3 = 6 marks

AO2/3 credit is awarded for evaluation/commentary on the explanation of superstitious behaviour provided as AO1.

Note that:

- Material from alternative explanations can be used as commentary provided that links with the explanation under discussion are sustained.
- Evaluation of research studies is only creditworthy if the implications for the explanation are made clear.

Evaluation/commentary might include:

- Skinner's research with pigeons and challenges to this, e.g. Staddon and Simmelhag, 1971 (the behavioural approach).
- The adaptive advantage of a superstitious behaviour persists as long as the occasional superstitious response has an adaptive advantage - Foster and Kokko, 2009 (the evolutionary approach).
- People given a reduced sense of control are more likely to develop superstitions - Whitson and Galinsky, 2008 (the cultural approach).

AO2/3 6 marks Evaluation/commentary

6 marks - Effective Evaluation/commentary demonstrates sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
5-4 marks - Reasonable Evaluation/commentary demonstrates reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-2 marks - Basic Evaluation/commentary demonstrates basic analysis and superficial understanding. Application of knowledge is sometimes focused. Expression of ideas lacks clarity.
1 mark - Rudimentary Evaluation/commentary is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Question 13

Outline findings of research into near death experiences.

[4 marks]**AO1 = 4 marks**

Note that:

- No credit is available for material which is unrecognisable as a research finding.
- No credit is available for description of the procedure of studies or for evaluative material.
- No credit can be given to research findings on out of body experiences unless *explicitly* in the context of NDE.

AO1 credit is awarded for an outline of the findings of research into near death experiences.

Possible research findings include:

- Ring, 1980 - identified a NDE 'core experience': feelings of deep peace and well-being, sense of separation from the body, entering darkness/passing through a tunnel, seeing 'the light', entering the light/beautiful garden.
- Jansen, 1997 - ketamine, a drug which acts on the temporal and frontal lobes produces symptoms of NDE's including the 'tunnel' and mystical experiences.
- van Lommel et al., 2001 - 18% of 344 cardiac arrest survivors described a near death core experience.
- van Lommel et al., 2001 - ten elements of NDE, these are awareness of being dead, positive emotions, out of body experience, moving through a tunnel, communication with light, observation of colours, observation of a celestial landscape, meeting with deceased persons, life review, presence of border.
- Schwaninger et al., 2002 - 23% of a sample of 30 cardiac arrest patients reported an NDE, a further 13% reported experiencing an NDE associated with a previous life-threatening illness.
- Greyson, 2003 - NDEs were reported by 10% of cardiac arrest patients and 1% of other cardiac patients.

AO1 4 marks Knowledge and understanding

4 marks – Sound Knowledge and understanding of findings are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks – Reasonable Knowledge and understanding of findings are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks – Basic Knowledge and understanding of findings are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark – Rudimentary Knowledge and understanding of findings are rudimentary and may be very brief, muddled and/or inaccurate. Answer lacks organisation and structure.
0 marks No creditworthy material

Section C Psychological Research and Scientific Method**Question 14**

State a directional hypothesis for this small scale investigation.

[2 marks]

AO3 = 2 marks

2 marks: Direction of difference clear with full operationalisation (i.e. anxiety scores).
Students taking part in an anxiety reduction programme show a reduction in anxiety scores.

1 mark: Direction of difference clear with partial evidence for operationalisation.
Students taking part in an anxiety reduction programme show a reduction in anxiety.
Anxiety reduction programmes reduce anxiety.

OR

1 mark where the required elements are present but the hypothesis presented is not concise.

0 marks: Incorrect answer, including answers presented in the form of:

- questions
- non-directional hypotheses
- null hypotheses
- hypotheses proposing an inappropriate direction.

Correlational hypotheses receive no credit.

Question 15

The researchers needed consent from parents/guardians for their children to take part in the investigation. Design a consent form that might have been given to parents/guardians asking for permission for their child to take part.

[5 marks]

AO3 = 5 marks

AO3 credit is awarded for the production of a parent/guardian consent form for this small scale investigation. To be effective this must:

- be addressed to parents/guardians in an appropriate tone/style.
- contain sufficient detail on the purpose of the investigation and the procedures for informed consent to be given.
- Specifically request consent from the parent/guardian.

It might also address gaining consent from the child, confidentiality, protection from harm, the right to withdraw and how results would be used.

Students who do not address the purpose of the investigation and the procedures cannot gain more than 2 marks.

No credit can be gained for:

- a consent form designed for the participants rather than their parents/guardians.
- a narrative description of what such a form might include rather than a consent form per se.

AO3 5 marks Devising a consent form

5 marks – Effective The consent form demonstrates sound understanding. Explicitly relevant information is given in a clear and concise form. The form includes sufficient information for a parent/guardian to make a fully informed decision about their child taking part.
4-3 marks – Reasonable The consent form demonstrates reasonable understanding. Information is given in a reasonably clear and concise form and is mainly relevant. The form includes sufficient information for a parent/guardian to make an informed decision about their child taking part.
2 marks – Basic The consent form demonstrates basic understanding. There is some lack of clarity/conciseness and material is not always relevant. The form has some omissions such that a parent/guardian would find it difficult to make an informed decision about their child taking part.
1 mark – Rudimentary The consent form is rudimentary and demonstrates very little understanding. Information is not given in a clear/concise form. The form has significant omissions such that a parent/guardian would find it impossible to make an informed decision about their child taking part.
0 mark No creditworthy material.

Question 16

The researchers wanted to establish the reliability and internal validity of their questionnaire. What is meant by the terms **reliability** and **internal validity**? **[2 marks]**

AO1 = 2 marks

Reliability concerns the consistency of a measure or procedure. Internal validity concerns whether a measuring instrument measures what it sets out to measure.

2 marks: Accurate answers for both. Note that detail is not expected as only one mark is available for each.

1 mark: Correct definition of either reliability or internal validity, or a weak attempt at both.

0 mark: No correct material.

No credit can be awarded for naming a method of checking reliability or validity.

Question 17

How might the researchers have checked the internal validity of their questionnaire?

[3 marks]

AO3 = 3 marks

Internal validity of the questionnaire can be checked by one or more of the following:

Content validity – is the content of the questionnaire appropriate? A simple way of establishing this is **face validity** - does the questionnaire look right and appear to test what it aims to test? This could be established by using a rating scale to assess the suitability of the questionnaire. Those asked to rate the suitability could be the participants themselves or others in a position to offer judgement (perhaps teachers, parents, school counsellors). A high suitability rating might suggest a valid test.

Criterion validity - is a measure of the extent to which questionnaire items are actually measuring the topics that they are intended to measure. This may be established through **concurrent validity** how well the scores relate to those from a currently existing similar measure that is known to have good validity. A high positive correlation between the two measures would indicate concurrent validity. Another way is through **predictive validity** - how well do questionnaire scores relate to later performance on a related measure. Similar performance on the two measures would be predicted and again a high positive correlation between them would indicate validity.

External/ecological validity cannot receive credit.

Up to 3 marks for explaining how the internal validity of the questionnaire might be established. One mark for knowledge of an appropriate method, plus one mark for the process involved and one mark for how validity is established. For example: Internal validity of the questionnaire can be established by concurrent validity (1 mark) by comparing questionnaire scores to those from another similar established measure (1 mark). A high positive correlation would indicate validity (1 mark).

2 marks can be awarded for a less detailed answer. For example: Internal validity of the questionnaire can be established by concurrent validity (1 mark) by finding a correlation with scores from another similar questionnaire (1 mark).

Merely naming one or more methods – Maximum 1 mark.

Question 18

The researchers chose to use a one-tailed test to analyse their data. Give **one** reason for this choice. **[1 mark]**

AO3 = 1 mark

1 mark - Because the researchers had used a directional hypothesis. Accept the researchers hypothesised that anxiety levels would decrease.

Reference to previous research is not creditworthy.

A Wilcoxon Matched Pairs Signed Ranks Test was used to test for the significance of the difference between the anxiety scores at the start of the programme and after the programme had ended. No student's score remained the same. The calculated value of T was found to be 63.

Table 1: Critical (table) values of T

Level of significance for a one-tailed test			
N	0.05	0.01	0.005
21	67	58	42
22	75	65	48
23	83	73	54
24	91	81	61
25	100	89	68

Values of T that are equal to or less than the tabled value are significant at or beyond the level indicated.

Question 19

Using **Table 1** above, explain whether or not the results of the study are significant at the 5% level. **[3 marks]**

AO3 = 3 marks

The results of the study are significant (1 mark).

If results are stated to be significant, up to 2 further marks can be awarded:

...because the observed value of T is less than the table value (+ 1 mark).

Full marks if both the value of N and the critical value are quoted ...because the observed value of T is less than the critical value of T for N=23 which is 83 (+ 2 marks).

A max of one further mark can be awarded for an answer quoting the correct values but with muddled terminology (e.g. muddling the terms observed value, critical value and/or significance level).

0 mark for "not significant".

Question 20

Explain why a control group of students was necessary for the main study described above. **[3 marks]**

AO3 = 3 marks

1 mark for identifying that a control group acts as a comparator for the treatment group who receive the anxiety management programme.

Up to 2 additional marks for further explanation. If a control group was not used there would be no way of knowing whether students' anxiety levels may have changed over the period of the study, irrespective of whether they were in the programme or not. Therefore whether or not the programme was effective.

Question 21

Explain why participants were allocated randomly to the two conditions. How might the students have been allocated randomly to the two conditions? **[2 marks + 2 marks]**

AO3 = 4 marks

1 mark for a reason why participants were allocated randomly. For example, eliminates any researcher bias in participant allocation to conditions.

1 further mark for appropriate elaboration, e.g. this means that participant characteristics that might affect the research are not distributed systematically.

Note that definitions of random allocation receive no credit. Examiners need to be alert to students confusing random allocation with random sampling.

Up to 2 marks for an appropriate suggestion as to how the students might have been allocated randomly to the two conditions.

Names (numbers) of all the 40 students taking part may have been placed into a hat / computer programme designed for this purpose (1 mark).

+1 mark for 'what then', e.g. names are drawn from the hat and allocated alternately to each condition.

Table 2. Median reduction in anxiety scores and ranges for all participants

	Median reduction in anxiety score	Range
Experimental group	12	16
Control group	2	5

Question 22

Sketch a suitably labelled graph to illustrate how the data for both groups of students might be presented. **[4 marks]**

AO3 = 4 marks

One mark for selecting an appropriate type of graph (e.g. bar chart). Note that a scatter graph would be inappropriate.

One further mark – appropriate title and labelling of axes. Note the amount of information given in the title may impact on the labelling of axes.

Two further marks - appropriate depiction of data from the 2 conditions. Examiners need to bear in mind that students only know the median scores and ranges. Reference to both of these is required for full marks.

Note that no credit can be awarded for labelling / depiction of data on an inappropriate type of graph.

Question 23

What statistical test would you use to analyse the results from the main study? Give **three** reasons for your choice of test. **[4 marks]**

AO3 = 4 marks

An appropriate statistical test would be the Mann-Whitney U Test. (1 mark).

Reasons for using Mann-Whitney U Test - test of difference, independent samples, data can be treated as being at an ordinal level of measurement (+1 mark for each correct reason).

Note that:

No marks can be awarded for test reasons unless the choice of test is correct.
'Interval' or 'Not nominal' are not creditworthy as test reasons.

Examiners need to be alert to a case being made for other tests, such as chi square which can be credited if (and only if) the candidate suggests that data for each group of students might be categorised into (for example) numbers of students with anxiety change scores between x and y, y and z or numbers of students with increased/same/reduced anxiety scores.

Question 24

The researchers had considered using a matched pairs design in their study. What is meant by the term 'matched pairs design'? How might a matched pairs design have been implemented for this investigation? **[2 marks + 2 marks]**

AO1 = 2 marks

Matched pairs is an experimental design in which pairs of participants are matched on criteria/attributes relevant to the investigation being undertaken (1 mark). Within each pair one participant is assigned to each condition (1 mark).

AO3 = 2 marks

Up to 2 further marks:

In this research pairs of participants would be matched on their anxiety scores to ascertain their anxiety levels at the start of the investigation. Members of each pair would be allocated (randomly) to the anxiety reduction programme or the control group.

Assessment Objectives

Question	AO1	AO2/3	Total
Section A			
1	8	16	24
2	8	16	24
3	8	16	24
4	8	16	24
Section B			
5		10	
6	4		
7	4	6	24
8		10	
9	4		
10	4	6	24
11		10	
12	4	6	
13	4		24
Section C			
14		2	
15		5	
16	2		
17		3	
18		1	
19		3	
20		3	
21		4	
22		4	
23		4	
24	2	2	35

UMS conversion calculator www.aqa.org.uk/umsconversion



General Certificate of Education
Advanced Level Examination
June 2015

Psychology (Specification A) PSYA4R

Unit 4 Psychopathology, Psychology in Action and Research Methods

Tuesday 16 June 2015 9.00 am to 11.00 am

For this paper you must have:

- an AQA 16-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **paper reference** is PSYA4R.
- In **Section A**, choose **one** topic. Answer **all** questions on the topic you choose.
Where appropriate, refer to theories and/or studies.
- In **Section B**, choose **one** topic. Answer **all** questions on the topic you choose.
Where appropriate, refer to theories and/or studies.
- In **Section C**, you should answer **all** questions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 83.
- In **Section A** and in **Section B** you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Section A Psychopathology

Choose **one** topic from **Section A**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Schizophrenia

0 | 1 Outline **one** issue relating to the classification **and/or** diagnosis of schizophrenia. [4 marks]

0 | 2 Outline and evaluate **one or more** biological explanations for schizophrenia. [4 marks + 16 marks]

Topic: Depression

0 | 3 Outline **one** issue relating to the classification **and/or** diagnosis of depression. [4 marks]

0 | 4 Outline and evaluate **one or more** biological therapies for depression. [4 marks + 16 marks]

Topic: Phobic Disorders

0 | 5 Outline the clinical characteristics of phobic disorders. [4 marks]

0 | 6 Outline and evaluate **one or more** psychological therapies for phobic disorders. [4 marks + 16 marks]

Topic: Obsessive Compulsive Disorder

0 | 7 Outline the clinical characteristics of obsessive compulsive disorder. [4 marks]

0 | 8 Outline and evaluate **one or more** psychological explanations for obsessive compulsive disorder. [4 marks + 16 marks]

Section B Psychology in Action

Choose **one** topic from **Section B**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Media Psychology

0 9 Discuss **one or more** explanations of how the media influences anti-social behaviour.
[4 marks + 6 marks]

1 0 A mobile phone company feels that the market for phones for people aged 65+ is not sufficiently developed. They have produced a phone that is slightly larger, with a larger keypad, clearer display, and fewer but more straightforward applications.

Using your knowledge of the persuasiveness of TV advertising, what advice would you give to the company so that it could make the TV advertising campaign as effective as possible? Refer to psychological research to justify your advice.

[10 marks]

1 1 Outline the findings of **one or more** studies of intense fandom.
[4 marks]

Topic: The Psychology of Addictive Behaviour

1 2 Discuss the learning approach to explaining initiation of gambling.
[4 marks + 6 marks]

1 3 Dan has been working long hours revising for his final degree exams at University. His friends persuade him that a short break would help him to relax while he is waiting for his results. They all go away to enjoy some of Dan's favourite activities, caving and rock climbing. One evening they play the slot machines in town before going on to a club. Dan has not played slot machines before, but he finds it exciting. From then on Dan plays the slot machines, even when his friends are off doing other things.

Using your knowledge of risk factors in the development of addiction, explain Dan's desire to play the slot machines.

[10 marks]

1 4 Outline the theory of planned behaviour (TPB) as a model of addiction prevention.
[4 marks]

Turn over ►

Topic: Anomalistic Psychology

- | | |
|---|---|
| 1 | 5 |
|---|---|

 Outline **one or more** methodological issues related to the use of the Ganzfeld procedure in the study of paranormal cognition. **[4 marks]**
- | | |
|---|---|
| 1 | 6 |
|---|---|

 Joe started following his local football team when he was 10 years old. The first four times he went to a match he wore a special scarf knitted by his mum and each time his team won. For the next match that he went to, Joe could not wear the scarf as it was in the wash. The team lost. Joe blamed the defeat on not wearing the scarf.
- Joe is now 25 and still follows the same team. Even though they have lost lots of matches over the years he still makes sure he always wears the scarf. He believes it helps his team to win.
- Use your knowledge of the role of coincidence **and/or** probability judgements in anomalous experience to explain Joe's behaviour and his belief in the power of the scarf. **[10 marks]**
- | | |
|---|---|
| 1 | 7 |
|---|---|

 Discuss psychological research studies that have investigated psychic healing. **[4 marks + 6 marks]**

Section C Psychological Research and Scientific Method

Answer **all** questions in this section.

This topic carries 35 marks.

Topic: Psychological Research and Scientific Method

Read this information very carefully as you will need to refer to it in later questions.

Empathy is the ability to understand the feelings and emotions of other people. Some studies have shown that people high in empathy, are more accurate at recognising facial expressions of emotions such as happy, sad, fearful, angry and surprised. A psychologist wanted to investigate this using a sample of 28 students from a local sixth form college.

In the first part of the study the psychologist used a questionnaire to measure empathy in the participants. The maximum possible empathy score was 60. She found that the lowest empathy score in her participants was 20, and the highest empathy score was 55.

In the second part of the study each participant was presented with a series of faces showing different emotional expressions. The emotions were happy, sad, fearful, angry and surprised. There were 20 examples of each emotion. Each of the 100 faces was presented randomly on a computer screen for 0.5 of a second. After each presentation the participant had to press the appropriate key to identify the emotion expressed. Once the key was pressed the next face was presented. The total number of emotional expressions correctly identified by the participants ranged from 14 to 92.

- | | |
|---|---|
| 1 | 8 |
|---|---|

 Identify an appropriate sampling technique for this study and justify your choice. **[2 marks]**
- | | |
|---|---|
| 1 | 9 |
|---|---|

 Explain why it would be important for the psychologist to carry out a pilot study in relation to the second part of the study. **[4 marks]**
- | | |
|---|---|
| 2 | 0 |
|---|---|

 What is meant by 'reliability'? Explain how the psychologist might assess the reliability of her questionnaire. **[1 mark + 3 marks]**

Turn over ►

2	1
---	---

The psychologist used Spearman's Rho (r_s) to see if the correlation between empathy scores and recognition of facial expressions of emotions was significant. The calculated value of r_s was +0.490.

State whether this calculated value of r_s is significant. Using **Table 1** below explain your answer.

[1 mark + 2 marks]

Table 1 – Critical values for Spearman's Rho (r_s)

N	Significance Level		
	0.1	0.05	0.01
26	0.331	0.390	0.501
27	0.324	0.383	0.492
28	0.318	0.375	0.483
29	0.312	0.368	0.475
30	0.306	0.362	0.467

Table values are for a two-tailed test. To achieve significance, the calculated value of rho must be greater than the table value.

2	2
---	---

What is meant by a 'Type 1 error'? Explain why the psychologist thought that she had **not** made a Type 1 error.

[1 mark + 3 marks]

2	3
---	---

The psychologist submitted her report on the study for peer review.

Discuss the purpose of peer review.

[6 marks]

The psychologist wanted to do a follow-up study to investigate whether those participants with high empathy scores differed from those with low empathy scores in relation to helping behaviour. In order to do this she needed to consider how to measure her dependent variable and how to analyse the data that she collected.

2	4
---	---

Identify the independent variable and the dependent variable in this follow-up study.

[2 marks]

2	5
---	---

Explain how the psychologist might measure the dependent variable.

[3 marks]

2	6
---	---

Identify an appropriate statistical test that the psychologist could use and justify your choice.

[3 marks]

2	7
---	---

Identify ethical issues in this follow-up study and explain how the psychologist could deal with them.

[4 marks]

END OF QUESTIONS

There are no questions printed on this page

A-LEVEL

Psychology A

PSYA4R: Psychopathology, Psychology in Action and Research Methods
Mark scheme

2180
June 2015

Version 1.1: Final Mark Scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk

PSYA4 RM Assessor

Glossary of annotations summer 2015

Stamp	Usage for PSYA4
	Correct
	Text box for comment to be inserted
	A01
	A02 / 3
	Use to show blank page / crossed through material
	Meaning unclear
	Engagement
	Effective evaluation
	Attempted evaluation
	Irrelevant
	Incorrect
	Repetition
	Benefit of the doubt
	Application
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use
	Not in use

Section A – Psychopathology

Schizophrenia

01 Outline **one** issue relating to the classification **and/or** diagnosis of schizophrenia.

[4 marks]

AO1 = 4 marks

AO1 credit is awarded for a description of one issue concerned with the classification and/or diagnosis of schizophrenia, most of which will be related in some way to reliability and validity. Some issues are specifically relevant to schizophrenia, such as those associated with the range of symptoms and the subtypes of schizophrenia. Other issues surrounding the classification and/or diagnosis of mental disorders in general can receive credit as long as they are made relevant to schizophrenia.

Possible issues include:

- the reliability of schizophrenic diagnoses by the major classification systems (note that students may refer to either ICD, DSM IV or DSM V)
- the lack of homogeneity in the symptoms of schizophrenia
- symptom overlap and the inclusion of mixed disorders (such as schizo-affective disorder) in classification systems
- comorbidity, e.g. with depression
- reliability of diagnosis between different clinicians
- problems with the diagnosis such as labelling
- culture and gender differences in symptom presentation.
- Lack of a single unified syndrome

Research can be credited provided that it is used explicitly to elaborate the issue outlined.

Examiners should be mindful of possible overlaps between issues. Where issues are clearly linked together they should be treated as one.

Students who simply offer lists of signs and symptoms of schizophrenia or describe the classification systems are not addressing issues surrounding diagnosis and/or classification. Such material cannot earn marks.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

02 Outline and evaluate **one or more** biological explanations for schizophrenia.

[4 marks + 16 marks]

Students may present one or more explanations, and examiners should be sensitive to depth/breadth trade-offs

AO1 = 4 marks

AO1 credit is awarded for an outline of biological explanations for schizophrenia. There are a range of possible explanations:

- genetics – there is considerable evidence for a genetic influence in schizophrenia (given the difficulty of describing genetic explanations in detail, AO1 credit can be given for straight descriptions of twin, family and adoptive studies which outline the genetic explanation of schizophrenia.)
- biochemistry/neurotransmitters – the DA model. Apart from this neurotransmitters such as serotonin and glutamate have been implicated in schizophrenia
- neuroanatomy – studies show structural abnormalities in some patients with schizophrenia, such as enlarged ventricles and/or decreased size of temporal lobe and whole brain

Other explanations such as season of birth, viral influences and birth complications may receive credit if the explanation is clearly linked to biological/neurological factors.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent
2 marks Basic Knowledge and understanding are basic/relatively superficial Organisation and structure of the answer are basic
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organisation and structure
0 marks no creditworthy material

AO2/3 = 16 marks Evaluation of one or more biological explanations

AO2/AO3 credit is awarded for an evaluation of the explanation(s) outlined or identified. Evaluation will depend on the explanation offered, but is likely to include supporting evidence and methodological critique of that evidence.

Note that methodological evaluation of research studies is only creditworthy if the implications for the explanation are made explicit.

Likely AO2/3 material includes:

- Genetics – quality of evidence, difficulties in separating environmental and genetic influences in family history and twin studies, sample sizes in twin studies, changes in diagnostic criteria for schizophrenia and zygosity. Where studies have been credited as AO1 outline of the genetics explanations they cannot also be credited as AO2/AO3.

- Biochemistry – difficulties in establishing cause and effect, supporting evidence from post mortem/scanning/drug studies and animal studies.
- Neuroanatomy – difficulties in establishing cause and effect, side effects of drugs, supporting evidence from post mortem/scanning studies.

Comparison with psy explanations may be used for AO2/3 credit but must be explicitly linked to bio explanations in a sustained manner if it is to be credited

Undeveloped generic evaluations (eg more scientific/supports nature side of nature nurture hypothesis/ deterministic /reductionist) should receive rudimentary credit.

AO2/3 16 Marks Evaluation

16-13 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive
4-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Depression

03 Outline **one** issue relating to the classification **and/or** diagnosis of depression. **[4 marks]**

AO1 = 4 marks

For AO1 credit, students need to identify one issue relating to the classification and/or diagnosis of depression. These may include:

- the reliability of diagnosis of depression by ICD and DSM systems
- the reliability of the diagnosis between different clinicians
- the value of accurate diagnosis in accessing support and treatment
- problems associated with the diagnosis such as labelling
- the issue of comorbidity with other conditions such as schizophrenia and OCD
- culture and gender differences in symptom presentation.
- No single unified syndrome which covers all forms of depression.

Research can be credited provided that it is used explicitly to elaborate the issue outlined.

Examiners should be mindful of possible overlaps between issues. Where issues are clearly linked together they should be treated as one.

Students who simply offer lists of signs and symptoms of depression or describe the classification systems are not addressing issues surrounding diagnosis and/or classification. Such material cannot earn marks.

Note: Depression is classified as an affective (mood) disorder. Both DSM and ICD systems distinguish major depressive disorder (MDD, unipolar disorder) from bipolar disorder. These are creditworthy either individually or if used together to illustrate one issue in classification and diagnosis.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

04 Outline and evaluate **one or more** biological therapies for depression.

[4 marks + 16 marks]

Students may present one or more biological therapies, and examiners should be sensitive to depth/breadth trade-offs.

AO1 = 4 marks

AO1 material for this question consists of an outline of one or more biological therapies for depression. The most likely therapies to be outlined are drug therapy and ECT. The main groups used in the treatment of depression are monoamine oxidase inhibitors (MAOIs), tricyclic antidepressants, and selective serotonin reuptake inhibitors (SSRIs).

Students may present, for example, an overview of appropriate drugs as their therapy or may focus on a single drug.

Note: simply listing biological therapies up to 2 marks maximum.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial Organisation and structure of the answer are basic
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organisation and structure
0 marks no creditworthy material

AO2/3 = 16 marks

Evaluation will depend to some extent on the therapies outlined, but is likely to focus on issues of appropriateness and/or effectiveness. Better answers are likely to refer to the findings of outcome studies demonstrating effectiveness, and issues around measuring effectiveness.

Issues of appropriateness could include:

- compliance
- factors affecting the choice of treatment, such as financial constraints
- ethical issues such as side-effects of drugs and ECT (memory loss), informed consent, dehumanising effects of some treatments (especially ECT)

Issues of effectiveness could include:

- findings of studies comparing drug therapy with psychological therapies
- use of ECT for severe drug-resistant depression
- problems of measuring effectiveness
- placebo effects with drug therapy
- wide range of symptoms, with some responsive to therapy and others not
- combined therapies are often more effective than single therapies

Reference to psychological therapies may gain AO2/3 credit but only where it is used to provide a sustained commentary on biological therapies.

Undeveloped generic evaluations (eg more scientific/supports nature side of nature nurture hypothesis/ deterministic /reductionist) should receive rudimentary credit.

AO2/3 16 Marks Evaluation

16-13 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive
4-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Phobic Disorders

05 Outline the clinical characteristics of phobic disorders.

[4 marks]

AO1 = 4 marks

For this question part AO1 marks are awarded for an outline of the clinical characteristics of phobias, including:

- A persistent fear of particular objects or situations
- Irrational fear of particular objects or situations
- This persistent fear disrupts daily life

- Leads to avoidance behaviour of the object /situation concerned
- Exposure to the phobic stimulus causes an anxiety response
- Subcategories include - specific phobias, social phobia and agoraphobia.

Answers that focus on one subcategory of phobic disorder may receive marks across the scale if sufficiently detailed.

A sufficiently detailed bulleted list of characteristics may receive marks across the scale. To receive credit above Basic answers must refer to a persistent and irrational fear of particular objects or situations.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

06 Outline and evaluate **one or more** psychological therapies for phobic disorders.

[4 marks + 16 marks]

Students may present one or more therapies, and examiners should be sensitive to depth/breadth trade-offs.

AO1 = 4 marks

AO1 marks will be awarded for an outline of one or more psychological therapies explicitly related to phobic disorders. Likely material includes:

- Systematic desensitisation, based on counter-conditioning: involves relaxation techniques, establishment of a hierarchy of fears, and graded exposure: may be carried out in vivo or in vitro
- Exposure therapy (flooding) and modelling – exposure therapy is based on the assumption that high levels of anxiety in the presence of the phobic object are impossible to maintain for very long and must extinguish; modelling is assumed to operate via vicarious reinforcement of approach responses to the phobic object or situation
- Cognitive-behavioural therapies – RET involves challenging irrational beliefs through confrontation and dispute; Meichenbaum's SIT involves the use of positive self-statements to eradicate faulty internal dialogue; credit other CBT approaches relevant to phobias
- Psychoanalytic therapy focus on dealing with childhood causes of inner conflict

Therapies which are not explicitly shaped to phobic disorders (for example a straightforward description of therapy) cannot move out of rudimentary.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent
2 marks Basic Knowledge and understanding are basic/relatively superficial Organisation and structure of the answer are basic
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organisation and structure
0 marks no creditworthy material

AO2/3 = 16 marks

AO2/3 credit is awarded for an evaluation of one or more psychological therapies. Students are likely to refer to the findings of outcome studies demonstrating effectiveness, and issues around measuring effectiveness. Comparison with biological therapies (e.g. drugs) would be an effective route to AO2/3 credit, but must be explicitly linked to treatment for phobias.

Issues of appropriateness could include:

- requirement for motivation and commitment on the part of the client
- factors affecting the choice of psychological therapy, such as financial constraints, availability of therapies
- readiness to engage with the therapist
- ethical issues relating to therapies

Issues of effectiveness could include:

- reference to outcome studies
- problems of measuring effectiveness
- systematic desensitisation/exposure therapies have shown success rates of around 75-80% (McGrath et al 1990; Marks, 1990), but dropout rates are high. In vivo procedures tend to be more effective than covert desensitisation
- CBT – produces long term improvement and is more effective than relaxation and drugs for agoraphobia (Beck, 1994). Threat devaluation is more effective for agoraphobia and social phobias than specific phobias
- psychoanalytic therapy is time-consuming and there is limited evidence of effectiveness. More recent studies (Knijnik et al, 2004) have suggested some improvements over placebo

AO2/3 16 Marks Evaluation

16-13 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive
4-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Obsessive compulsive disorder

07 Outline the clinical characteristics of obsessive compulsive disorder.

[4 marks]

For this question AO1 marks are awarded for an outline of the clinical characteristics of OCD. The main diagnostic criteria include:

- obsessions (recurrent and persistent thoughts, impulses or images) and/or compulsions (repetitive behaviours that the person feels driven to perform) on most days for a period of two weeks or more
- obsessions and/or compulsions are repetitive, unpleasant, cause anxiety and interfere with daily life.

A sufficiently detailed bulleted list of characteristics may receive marks across the scale.
For 4 marks students should refer to both obsessions and compulsions.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

08 Outline and evaluate **one or more** psychological explanations for obsessive compulsive disorder.

[4 marks + 16 marks]

AO1 = 4 marks

AO1 marks will be awarded for an outline of one or more psychological explanations for OCD. There is a range of such explanations, such as:

- psychodynamic - Freud's idea of fixation at the anal stage
- behavioural - conditioned associations for instance between compulsive checking and reduction of anxiety; social learning theory, imitation and vicarious reinforcement
- cognitive - irrational thoughts become extreme and disabling.

Students may present one or more explanations, and examiners should be sensitive to depth/breadth trade-offs.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

AO2/3 = 16 marks

AO2/3 will be awarded for the evaluation of the explanations outlined or identified. Evaluation could take various forms:

- the extent to which explanations are supported by research evidence, including the effectiveness of therapies based on the explanation.
- the limitations of explanations for instance, the cognitive explanation maybe more of a description of the disorder rather than an explanation of its origins
- general commentary on, for instance, problems in actually testing explanations

Comparison with alternative explanations, eg other psychological explanations, biological, diathesis stress approach must form part of sustained commentary on the evaluation.

AO2/3 16 Marks Evaluation

16-13 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
4-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Section B – Psychology in Action

Media Psychology

09 Discuss **one or more** explanations of how the media influences anti-social behaviour.

[4 marks + 6 marks]

AO1 = 4 marks

AO1 credit is given for an outline of one or more explanations of media influences on anti-social behaviour. The most likely explanations include:

- observational learning, imitation of models in the media (social learning theory)
- viewing an aggressive model creates memories of the behaviour which are stored as scripts/schemas. Situational cues then trigger these aggressive schema (cognitive priming)
- frequent viewing of aggressive behaviour in the media reduces the sensitivity of the observer to aggression in the real world (desensitisation).

Explanation without reference to both media and antisocial behaviour Max 2 marks.

Reference to any form of media is appropriate.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

AO2/3 = 6 marks

Commentary might include:

- Research evidence. This must be linked to an identifiable explanation to receive credit to receive credit.
- Research findings; these are often inconsistent, and reference to conflicting evidence would be a highly effective route to AO2/AO3 credit.
- Methodological evaluation of studies. This may only earn credit if the implications for the explanation are explicit, eg in terms of reliability and validity of findings. This is particularly important in relation to Bandura's Bobo doll studies; note that reference to these studies must be in the context of media effects on antisocial behaviour, and not simply SLT as such.
- Comparison of explanations.

Reference to influences of the media on pro-social behaviour may only earn credit if explicitly embedded in the discussion of anti-social behaviour.

AO2/AO3 mark bands

6 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line or argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
5-4 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.
3-2 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
1 mark Rudimentary Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

10 Using your knowledge of the persuasiveness of TV advertising, what advice would you give to the company so that it could make the TV advertising campaign as effective as possible? Refer to psychological research to justify your advice.

[10 marks]

AO2/3 (Application) = 10 marks

Students are required to apply their knowledge of the persuasiveness of television advertising to the scenario. The two components of the question are firstly, advice to the company, secondly, to justify their advice with reference to psychological research. There is a wide range of material that would be creditworthy in this answer, but students are likely to draw on models mentioned in the Specification:

- Hovland–Yale model – features could include: reference to communication processes, attention, comprehension, source (celebrity/personal endorsement), message (one or two sided arguments and interaction with audience), audience, media
- Elaboration Likelihood model – central route (arguments about the specific features of the phone - these may be designed to appeal to older users) and peripheral routes (preference for images, imaginative contexts and emotional rather than fact-based arguments, eg showing people using the accessory with friends).

Credit other relevant material eg hard sell, soft sell.

The term ‘research’ includes both theory and studies, and findings of studies could be used effectively to illustrate the use of TV in advertising campaigns.

Answers that offer relevant advice but without any reference to psychological research (models/studies) maximum 5 marks.

Answers that describe psychological research (models/studies) but do not engage with the scenario can receive a maximum of 4 marks.

AO2/AO3 mark bands

9-10 marks Effective Explanation /application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks Reasonable Explanation /application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks Basic Explanation /application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks Rudimentary Explanation /application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

11 Outline the findings of **one or more** studies of intense fandom.

[4 marks]

AO1 = 4 marks

In the Specification ‘intense fandom’ includes celebrity worship and celebrity stalking. There are a variety of studies from these areas, eg:

Maltby et al (2001) – links between celebrity worship and psychological wellbeing. Maltby used CAS (celebrity attitude scale) and GHQ (general health questionnaire) and found that scores on the intense personal and borderline pathological sub-scales correlated positively with anxiety and depression scores.

Maltby (2004) found in a sample of 372 people aged 18 – 47 less than 2% were considered to be borderline pathological on the CAS.

James (2008) found over two thirds of stalkers who attempted to attack British royals were mentally ill, 48% showing psychotic behaviour.

McCutcheon (2006) found that college students who reported insecure attachments as children were more likely to condone celebrity stalking.

Mullen et al (1999) – found different motives in five types of stalkers

Note that only findings of the studies can be credited.

AO1 4 marks knowledge and understanding

4 marks Sound

Knowledge and understanding are accurate and well detailed.
Organisation and structure of the answer are coherent.

3 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
Organisation and structure of the answer are reasonably coherent.

2 marks Basic

Knowledge and understanding are basic/relatively superficial.
Organisation and structure of the answer are basic.

1 mark Rudimentary

Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate.
Lacks organisation and structure.

0 marks

no creditworthy material.

The Psychology of Addictive Behaviour

12 Discuss the learning approach to explaining initiation of gambling.

[4 marks + 6 marks]

AO1 = 4 marks

AO1 marks will be awarded for an outline of the learning approach to explaining the initiation of gambling. Key features of the learning approach are:

- Operant conditioning – the shaping of behaviour by rewards and punishments; partial schedules of reinforcement can be applied to gambling
- Classical conditioning – associations between reflexive behaviours such as excitement and arousal and environmental stimuli. Can explain initiation of gambling behaviour as an association between the context and the excitement of gambling
- Social learning – development of behaviours through observation and imitation, based on vicarious reinforcement. Can explain the initiation of gambling behaviour through media, parental, and peer influences.

Examiners should be sensitive to depth/breadth trade-offs; for instance detailed application of operant conditioning to the initiation of gambling could receive maximum marks.

Generic descriptions of a mode of learning which are not applied to the initiation of gambling can receive rudimentary credit.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

AO2/3 = 6 marks

AO2/3 credit is given for discussion and evaluation of the learning approach to the initiation of gambling. Points that can be made include:

- Relevant research evidence. Note: methodological evaluation of research studies may only earn credit if the implications for the learning explanation are explicit
- Operant conditioning is a less effective explanation for the initiation of gambling behaviour, than its maintenance – before rewards have been experienced. However reference to observational learning and vicarious reinforcement can cover this gap

- The learning approach has problems explaining individual differences in susceptibility to gambling
- The learning approach ignores biological (genetic) factors in the initiation of gambling behaviour. As long as the focus on evaluating the learning approach is sustained, consideration of alternative explanations would be an effective route to AO2/3 marks

AO2/AO3 mark bands

6 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line or argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
5-4 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.
3-2 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
1 mark Rudimentary Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

13 Using your knowledge of risk factors in the development of addiction, explain Dan's desire to play the slot machines. **[10 marks]**

AO2/3 (application) = 10 marks

Risk factors in the Specification are stress, peers, age and personality. The scenario includes references to all of these, though not all need to be covered for marks across the scale as there can be depth/breadth trade-offs.

- Stress – Dan's final exam results will determine his degree and his chances of going on to a successful career
- Peers – Dan's introduction to slot machines was through the influence of his peers
- Age – addiction is more likely to develop in young adults

- Personality – Dan shows some features associated with addiction, in particular sensation-seeking (he enjoys risky sports such as caving and rock climbing)

Use of relevant research to support explanations should be credited.

Answers that do not engage with the scenario can receive a maximum of 4 marks.

AO2/AO3 mark bands

9-10 marks Effective Explanation/application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks Reasonable Explanation/application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks Basic Explanation/application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks Rudimentary Explanation/application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

14 Outline the theory of planned behaviour (TPB) as a model of addiction prevention. [4 marks]**AO1 = 4 marks**

The theory of planned behaviour (TPB) consists of three components:

- Personal attitudes to the behaviour, including expectations about outcomes of the behaviour, eg understanding negative effects of smoking
- Subjective norms – derived from other people's views on the change in behaviour and how susceptible the individual is to social conformity
- Perceived behavioural control, or self-efficacy – how confident the individual is that they can carry out the behaviour successfully, eg giving up smoking.

The interaction between these components leads to behavioural 'intentions', which may or may not lead in turn to behaviour change.

Addiction prevention can refer to both initiating and cessation.

For 4 marks there should be reference to the three components of TPB. There need not be as much details as in the bullet points above, but there must be reference to addiction prevention.

Outlines of the model without reference to addiction prevention cannot gain more than 2 marks. Diagrams, if sufficiently detailed and with an indication of process, can earn credit across the scale.

AO1 4 marks knowledge and understanding

4 marks Sound
Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable
Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic
Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary
Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks
no creditworthy material.

Anomalistic Psychology**15 Outline one or more methodological issues related to the use of the Ganzfeld procedure in the study of paranormal cognition. [4 marks]****AO1 = 4 marks**

AO1 credit is given for an outline of one or more methodological issues related to the use of the Ganzfeld procedure in the study of paranormal cognition. Relevant issues include:

- Possible cheating by participants.

- Lack of control in early studies, eg order of presentation, sensory leakage, insecure storage of images
- Possible researcher bias, eg sceptical researchers v psi believers can influence the amount of elaboration by the receiver
- Influence of the receivers' beliefs (the sheep-goat effect).

Credit can be awarded for the effects/implications of the issue(s) outlined on the results of studies using the Ganzfeld procedure.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

- 16** Use your knowledge of the role of coincidence **and/or** probability judgements in anomalous experience to explain Joe's behaviour and his belief in the power of the scarf.

[10 marks]

AO2/3 (Application) = 10 marks

Psychological explanations for Joe's behaviour and beliefs are based around the idea that humans have a deep-seated need to seek causality for everything that happens. This makes us look for causes for random events which are actually the product of chance. In general, people have a poor understanding of chance and probability.

Potential explanations Joe's beliefs and behaviour include:

- Probability misjudgement: people who believe in the paranormal and are superstitious show less understanding of chance and coincidence than non-believers
- Subjective validation: this is a cognitive bias in which people tend to remember 'hits' and overlook the 'misses'. Joe remembers the times the team wins when he wears his scarf and overlooks the times they don't, or attributes the losses to other factors
- Operant conditioning: Joe was rewarded initially for wearing the scarf. Subsequently, even if the team loses some matches, when they win it provides additional reinforcement. This is a partial (intermittent) schedule that has been shown to sustain behaviour
- Although the focus of the question is on coincidence/probability, Joe's behaviour can also be described as 'superstitious'. References to superstitious behaviour/magical thinking are therefore creditworthy as long as the focus of the answer is on coincidence/probability

- Individual differences related to superstitious behaviour; Joe may have characteristics related to belief in the paranormal ie he is a sheep, not a goat, and so ignores the role of probability and coincidence

Use of relevant research to support explanations should be credited.

Note: students need not cover all of these points to access full marks, and examiners should be sensitive to a depth/breadth trade-off.

Answers that do not engage with the scenario can receive a maximum of 4 marks.

AO2/AO3 mark bands

9-10 marks Effective Explanation /application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6-8 marks Reasonable Explanation /application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3-5 marks Basic Explanation /application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1-2 marks Rudimentary Explanation /application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

17 Discuss psychological research studies that have investigated psychic healing.

[4 marks + 6 marks]

AO1 = 4 marks

AO1 credit is given for an outline of psychological research studies that have investigated psychic healing.

Psychic healing refers to the treatment and cure of illness and disease through paranormal influences and in the absence of conventional medical therapies.

Psychological research has included controlled investigations with eg untreated and/or placebo control groups (eg Attevelt, 1988, psychic healing and asthma; Benson et al, 2006, psychic healing through prayer of those suffering from post-operative complications following cardiovascular surgery).

Further studies include Wirth's work (Wirth, 1990) on therapeutic touch (TT), which claimed to show that TT speeded up wound healing. Also from Wirth's group, Cha et al., (2001) studied the power of prayer in helping women being treated for infertility become pregnant. They found that twice as many women prayed for by strangers became pregnant, compared with those women not prayed for.

Anecdotal material should not receive credit.

Partial performance applies to AO1. Up to 3 marks for one study.

AO1 4 marks knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

AO2/3 = 6 marks

AO2/3 credit is awarded for commentary on psychological research studies of psychic healing.

Relevant points include:

- Controlled studies usually find no support for psychic healing, but provide evidence for significant placebo effects
- Single case studies provide support for psychic healing, but are usually methodologically unsound, eg lack of control for the natural healing process or for placebo effects
- Single case studies rarely satisfy Randi's (1987) criteria for valid studies of psychic healing.
- Wirth's work on TT has failed to be replicated, even by Wirth. Cha has subsequently been accused of plagiarism, and Wirth himself convicted of criminal fraud, raising serious doubts about the validity of their findings

- Lyvers et al (2006), in a study of psychic healing at a distance, found no objective evidence for psychic healing, but also that ‘believers’ thought they had improved

AO2/AO3 mark bands

6 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line or argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
5-4 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.
3-2 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
1 mark Rudimentary Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Section C - Psychological Research and Scientific Method

- | | |
|---|---|
| 1 | 8 |
|---|---|
- Identify an appropriate sampling technique for this study and justify your choice.
-
- [2 marks]**

AO3 = 2 marks

1 mark for identification of an appropriate sampling technique.
1 further mark for a justification appropriate to the technique selected.

Possible responses include:

- Opportunity sample – quicker and easier than a random sample
- Random sample – participant selection is less biased because every student in the college stands an equal chance of being selected
- Volunteer sample – participants would be interested in the task and likely to take it seriously.

Note that the second mark is for the justification rather than a description of the technique.
For credit “quick and easy” must be qualified eg comparison

Credit other relevant responses

- | | |
|---|---|
| 1 | 9 |
|---|---|
- Explain why it would be important for the psychologist to carry out a pilot study in relation to the second part of the study.
-
- [4 marks]**

AO3 = 4 marks

Possible responses might include checking:

- Whether the faces were clear representations of the various facial expressions
- Whether the order of presentation of faces is important, eg presentation should be random
- Whether the exposure time was appropriate, avoiding ceiling and floor effects
- Whether the number of stimuli was appropriate – sufficient to give reliable data, not too many to produce fatigue, ie the length of the study
- Whether the software recording correct identifications was working reliably.

Answers with no engagement with the second part of the study max 1 mark

There is no credit for describing a pilot study.

AO3 4 marks knowledge and understanding**4 marks Sound**

Knowledge and understanding of the purposes of a pilot study in relation to the second part of the study are accurate and well detailed.

3 marks Reasonable

Knowledge and understanding of the purposes of a pilot study in relation to the second part of the study are generally accurate and reasonably detailed.

2 marks Basic

Knowledge and understanding of the purposes of a pilot study in relation to the second part of the study are basic/relatively superficial.

1 mark Rudimentary

Knowledge and understanding of the purposes of a pilot study are rudimentary and may be very brief, muddled and/or inaccurate or there is no engagement with the second part of the study

0 marks

No creditworthy material.

2	0
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What is meant by 'reliability'? Explain how the psychologist might assess the reliability of her questionnaire. **[1 mark + 3 marks]**

AO1 = 1 mark; AO3 = 3 marks

The two parts of the question need not be linked, so that students who outline one form of reliability and then assess another form may receive marks across the scale.

1 mark for a definition of reliability.

Generic definitions of reliability, eg linking reliability to consistency of findings, data, or participant responses, sufficient for 1 mark. Reliability may also be defined in terms of types of reliability eg internal or external. Merely naming internal/external reliability is not creditworthy.

Up to 3 marks for explaining how (ie explaining the procedure for assessing) reliability of the questionnaire can be assessed.

Internal reliability means that the items making up the questionnaire are assessing the same characteristic; external reliability means that the same person taking the questionnaire at two different times produces the same score.

Possible answers might include:

- Split-half (Internal reliability): scores on half the items (1 mark), are correlated with scores on the other half (1 mark) and the higher the correlation the more reliable the questionnaire (1 mark).
- Test-retest (External reliability): the questionnaire is given to the same participants again (1 mark). The scores on the two tests are correlated (1 mark) and the higher the correlation the more reliable the questionnaire (1 mark).

Students who do not use the terms internal and external but who clearly understand the term 'reliability' as reflected in their answer may be credited.

No credit for merely naming a method used to assess reliability eg split half, test retest.

2 1

State whether this calculated value of r_s is significant. Using **Table 1** below explain your answer.

[1 mark + 2 marks]**AO3 = 3 marks**

1 mark for correctly stating that the results are significant.

If the decision is incorrect or no decision provided no marks can be awarded for the explanation.

2 further marks for explaining the decision in relation to the table.

- 1 mark for an explanation that makes an appropriate reference to the table, eg the calculated value of rho is greater than table value.
- 2 marks for a detailed explanation, eg the calculated value (+0.490) for N = 28 is significant at the $p < 0.01$ level as it is greater than the critical value of 0.483.

The result is significant at both $p < 0.05$ and $p < 0.01$ levels; reference to either is acceptable.

2 2

What is meant by a 'Type 1 error'? Explain why the psychologist thought that she had **not** made a Type 1 error.

[1 mark + 3 marks]**AO1 = 1 mark; AO3 = 3 marks**

1 mark for definition

A Type 1 error is when the results are accepted as significant when in fact they are not; the alternative hypothesis is accepted when it is false. Accept definitions in terms of null hypothesis.

Up to 3 marks for explanation which might include:

- The results are significant at $p < 0.01$
- $p < 0.01$ is a stringent level of significance.
- The more stringent the significance level the less the chance of a Type 1 error.
- The likelihood of the psychologist making a Type 1 error is 1 in 100 or less.

1 mark for brief explanation, eg 'the results had a high level of significance'.

Additional marks for showing a coherent understanding of Type 1 error, link to level of significance, and reference to actual p values.

2	3
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The psychologist submitted her report on the study for peer review.

Discuss the purpose of peer review.

[6 marks]

AO1/AO3 = 6 marks

The term 'discuss' implies that students should consider the purpose of peer review and its strengths and/or limitations.

In peer review research reports are checked in terms of suitability for publication, appropriateness of the theoretical background, methodology, statistics and conclusions.

Definitions of peer review are only creditworthy in so far as they outline the purpose.

Discussion is likely to focus on

- The work is methodologically sound, valid and does not involve e.g. plagiarism of other people's research
- The findings are novel, interesting and relevant, and add to knowledge of a particular research area
- The authors are not making unjustified claims about the importance of their findings
- Peer review ensures research is reviewed by fellow experts
- Peer review maintains the standards of published work and allows University research departments to be rated and funded in terms of their quality;
- It helps to ensure that poor quality work is not published in reputable journals
- Bias – it has been established that a publication bias occurs towards prestigious researchers and research departments
- Bias towards positive findings - negative findings and replications are rarely published, though these can be critical in establishing whether important findings are reliable
- Bias in favour of 'established' research areas – novel or unusual research is hard to publish
- Time consuming and expensive – peer review can take months, or in some cases where revisions are necessary, years, so delaying publication of important findings
- As reviewers are usually working in the same field as the submitted work and competing for limited research funds, there is a temptation to delay or even prevent the publication of competing research
- Peer review sometimes fails to prevent scientific fraud

Answers that merely outline the purpose of the peer review process can receive a maximum of 2 marks

6 marks Sound
Discussion demonstrates sound knowledge, understanding, analysis and interpretation. The answer is well focused and shows coherent elaboration. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling. Reference to a range of relevant points.
5-4 marks Reasonable
Discussion demonstrates reasonable knowledge, understanding and analysis. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Reference to at least two relevant points.
3-2 marks Basic
Discussion demonstrates basic, superficial knowledge and understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology.
1 mark Rudimentary
Discussion is rudimentary demonstrating a very limited knowledge and understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant.
0 marks
No creditworthy material is presented.

- 2 4** Identify the independent variable and the dependent variable in this follow-up study. **[2 marks]**

AO3 = 2 marks

1 mark for independent variable: high or low empathy scores. Accept 'empathy score'.
 1 mark for dependent variable: scores on a measure of helping behaviour. Accept 'helping behaviour'.

- 2 5** Explain how the psychologist might measure the dependent variable. **[3 marks]**

AO3 = 3 marks

1 mark for a practical idea, 2 further marks for increasingly detailed outline of how the DV would be measured. 3 marks for a practical idea that is fully explained.

Dependent variable: this is a measure of helping behaviour, so there is a range of possibilities. Eg Friends and family could be asked to rate the helpfulness of the participant eg on a scale from 1-10; alternatively a scenario could be set up without the pps knowledge to observe their helping behaviour e.g. a confederate of the researcher drops books, and the number of people helping/not helping is recorded. There are further ways of operationalizing helping behaviour, but they must be practical and feasible to receive credit.

Merely naming a research method eg interview, questionnaire receives not credit.

No credit can be awarded for unethical suggestions or really impractical suggestions.

2 6

Identify an appropriate statistical test that the psychologist could use and justify your choice.

[3 marks]

If the answer to Q25 does not provide recognisable data no credit can be awarded for Q26

AO3 = 3 marks

1 mark for the identification of an appropriate test, 2 further marks for the justification.

- A test of difference is required.
- An independent groups design.
- A test appropriate to the level of measurement. If the data can be treated as at least ordinal then a Mann Whitney U test would be appropriate; if the data can be categorised then a Chi Square could be used. Credit also appropriate reference to the independent t-test.

The test must be correct for justification for marks to be awarded.

2 7

Identify ethical issues in this follow-up study and explain how the psychologist could deal with them.

[4 marks]

AO3 = 4 marks

There are a range of ethical issues that may be relevant, depending upon the design of the study. If the dependent variable is based on ratings by friends, for instance, then ethical issues in relation to the participant may include lack of informed consent, lack of confidentiality of data, and not being allowed the right to withdraw at any time.

Additional issues of deception and participant psychological harm may come into play. Marks may only be awarded where ethical issues are clearly relevant to the stem and/or the material presented in their response to Q25.

1 mark for identifying one or more ethical issues.

3 further marks for outlining methods of dealing with them, eg

- Lack of informed consent: informed consent, obtained through using a consent letter that the participant must sign
- Consent letter containing outline details of the study (informed consent) and referring to the right to withdraw and confidentiality of data.
- In cases of deception, presumptive consent may be used, and full debriefing would be essential.

- Deception: debriefing, explaining the purpose of the study and why deception was necessary
- Deception: presumptive consent, asking non-participants if they would be happy to do the study
- Protection from harm eg if participants are categorised as “low empathy” they should be offered counselling.

Students may cover one ethical issue in detail (e.g. deception, covering debriefing and presumptive consent) or more than one in less detail.

For full marks there must be explicit linkage to either the stem or the student's response to Q25

Assessment Objectives

Question	AO1	AO2/AO3	Total
Section A			
01	4		4
02	4	16	20
03	4		4
04	4	16	20
05	4		4
06	4	16	20
07	4		4
08	4	16	20
Section B			
09	4	6	10
10		10	10
11	4		4
12	4	6	10
13		10	10
14	4		4
15	4		4
16		10	10
17	4	6	10
Section C		AO3	
18		2	2
19		4	4
20	1	3	4
21	0	3	3
22	1	3	4
23	2	4	6
24		2	2
25		3	3
26		3	3
27		4	4



General Certificate of Education
Advanced Level Examination
June 2014

Psychology (Specification A)

PSYA4

Unit 4 Psychopathology, Psychology in Action and Research Methods

Wednesday 11 June 2014 9.00 am to 11.00 am

For this paper you must have:

- an AQA 16-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **paper reference** is PSYA4.
- In **Section A**, choose **one** topic. Answer **all** questions on the topic you choose.
Where appropriate, refer to theories and/or studies.
- In **Section B**, choose **one** topic. Answer **all** questions on the topic you choose.
Where appropriate, refer to theories and/or studies.
- In **Section C**, you should answer **all** questions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 83.
- In **Section A** and in **Section B** you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

There are no questions printed on this page

Section A Psychopathology

Choose **one** topic from **Section A**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Schizophrenia

0	1
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Discuss psychological explanations for schizophrenia.

[8 marks + 16 marks]

Topic: Depression

0	2
---	---

Outline and evaluate **two** psychological therapies for depression.

[8 marks + 16 marks]

Topic: Phobic Disorders

0	3
---	---

Discuss biological explanations for phobic disorders.

[8 marks + 16 marks]

Topic: Obsessive Compulsive Disorder

0	4
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Outline and evaluate **one** biological explanation for obsessive compulsive disorder.

[4 marks + 8 marks]

0	5
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Outline and evaluate **one** psychological therapy for obsessive compulsive disorder.

[4 marks + 8 marks]

Turn over for Section B

Turn over ►

Section B Psychology in Action

Choose **one** topic from **Section B**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Media Psychology

Eleven year-old Matt often watches 18 certificate films with his older brothers. He invites his friend John round to play and they watch a violent film together. John isn't allowed to watch violent films at home and he finds some of the scenes frightening. John's heart races and he feels sick. Matt isn't upset at all by the film and finds the violent scenes amusing. Teachers have noticed that Matt sometimes gets into fights in the playground but John avoids fights.

- | | | |
|----|---|----------------------------|
| 06 | Using your knowledge of explanations of media influences on anti-social behaviour, explain the different behaviours shown by Matt and John. | [10 marks] |
| | | |
| 07 | Outline the Elaboration Likelihood Model of persuasion. | [4 marks] |
| | | |
| 08 | Discuss research into celebrity stalking. | [4 marks + 6 marks] |

Topic: The Psychology of Addictive Behaviour

0 9 Outline the biological approach to explaining relapse in addiction. **[4 marks]**

1 0 Discuss **two** risk factors which make people more vulnerable to addiction. **[4 marks + 6 marks]**

Governments use a range of strategies to dissuade people from smoking. These include banning smoking in public and workplaces, use of graphic images on cigarette packets and education programmes in schools. These programmes provide information about the dangers of smoking and help young people to develop the ability to 'just say no'.

1 1 Use your knowledge of the prevention of addictive behaviour to explain why these three strategies should reduce smoking. You should refer to the theory of planned behaviour in your answer. **[10 marks]**

Topic: Anomalistic Psychology

Identical twins often report that they share a special connection with each other. Many twins claim that this connection extends to the ability to read each other's minds. A study was carried out to test this claim. One member of the twin pair was asked to choose a picture from four images and think about this picture. Their twin partner had to guess which picture they had chosen. The twins were in the same room but separated by a screen.

1 2 What criticisms would a scientist make of this study of paranormal cognition? **[4 marks]**

1 3 Explain how this study would need to be changed to make it more scientific. You should refer to the criticisms that you identified in your answer to question **1 2**. **[6 marks]**

1 4 Outline **one** explanation for superstitious behaviour. **[4 marks]**

1 5 Discuss research into out of body experiences. **[4 marks + 6 marks]**

Turn over for Section C

Turn over ►

Section C Psychological Research and Scientific Method

Answer **all** questions in this section.

This topic carries 35 marks.

Read this information very carefully as you will need to refer to it in later questions.

154 patients who suffered from panic attacks were asked by a psychologist to take part in a clinical trial to assess the effectiveness of cognitive behavioural therapy (CBT). In order to select suitable participants for the trial, each patient completed a questionnaire which measured the severity of their symptoms on a scale of 1 (mild) to 10 (severe).

60 patients who had moderate symptoms with scores of 7 or 8 were selected to take part. They were randomly allocated to one of three conditions.

- Condition 1: Traditional cognitive behavioural therapy – this consisted of 12 one-hour sessions over a 12-week period.
- Condition 2: Brief cognitive behavioural therapy – this consisted of 5 one-hour sessions over a 5-week period with homework assessments.
- Condition 3: Control condition – patients were placed on a 12-week waiting list for traditional cognitive behavioural therapy. This group did not receive any form of treatment during the 12 weeks.

One week after finishing the course of therapy, patients in condition 1 and condition 2 completed the questionnaire for a second time. Patients in condition 3 completed the questionnaire for a second time at the end of the 12-week period. The three scores from this questionnaire were compared to see if there were differences in the severity of symptoms.

- | | | | |
|---|---|---|-----------|
| 1 | 6 | What were the aims in this study? | [2 marks] |
| | | | |
| 1 | 7 | Identify one variable which does not appear to have been controlled in this trial. Explain how this may have influenced the outcome. | [3 marks] |
| | | | |
| 1 | 8 | What is meant by 'validity'? How could the psychologist have assessed the validity of the questionnaire used to measure the severity of symptoms? | [4 marks] |
| | | | |
| 1 | 9 | The psychologist asked the 60 patients for fully informed consent to take part in this trial. What should the psychologist have told the patients so that they were able to give their consent? | [5 marks] |

Table 1 Mean and standard deviation of severity of symptom scores after therapy

Severity of symptom scores after therapy	Condition 1 Traditional CBT	Condition 2 Brief CBT	Condition 3 Waiting list
Mean	4.2	4.3	6.7
Standard deviation	1.2	2.4	1.3

The psychologist used a statistical test to assess the differences in severity of symptoms between patients in Condition 1 and Condition 2. The difference between traditional CBT and brief CBT was found to be non-significant ($p > 0.05$).

2 0 What do the data show about the effectiveness of the therapies for panic attacks? Refer to mean scores, standard deviations and the results of the statistical test in your answer. **[6 marks]**

2 1 Imagine that you are writing up the report for this experiment. What is the purpose of the abstract in a psychological report? **[2 marks]**

In the discussion section of a report, researchers are expected to consider possible practical applications and implications of their research.

2 2 Discuss applications **and/or** implications that might arise from this piece of research. **[5 marks]**

The psychologist wished to investigate which aspects of therapy were most useful. She decided to interview a sample of the patients. The purpose of the interviews was to encourage patients to talk freely and in detail about their experiences of therapy. Two of the questions used by the psychologist were:

- 'Please tell me about the most important aspects of the therapy which helped you to improve' and
- 'Please tell me about any aspects of the therapy which were less helpful to you in dealing with your symptoms'.

2 3 Explain how you would record the data from these interviews and your reason for choosing this method. **[3 marks]**

2 4 Explain how you would analyse the qualitative data from the interviews. **[5 marks]**

END OF QUESTIONS

There are no questions printed on this page

A-LEVEL PSYCHOLOGY A

PSYA4: Psychopathology, Psychology in Action and Research Methods
Mark scheme

2180
June 2014

Version: 1.0 Final

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available from aqa.org.uk

Section A Psychopathology

Question 01

Discuss psychological explanations for schizophrenia. (8 marks + 16 marks)

AO1 = 8 marks

AO1 credit is awarded for description of psychological explanations for schizophrenia. There is a plurality requirement in the question hence students should present two or more explanations. Students could organise their answers in relation to cognitive and social explanations, for example. The explanations need not be balanced, but to achieve a mark in the top band there should be detail provided for at least two. Students who cover one explanation are showing partial performance and can be awarded up to 5 marks.

Psychological explanations of schizophrenia including those based on family dynamics/communication (e.g. Bateson's double bind theory, Vaughn and Leff's expressed emotion) and cognitive approaches (e.g. Frith, Bentall) which emphasise impaired attention processing. Students could also cover explanations based on life experiences which focus primarily on the link between social adversity and schizophrenia.

Likely material includes:

- Fromm-Reichmann (1948) proposed the idea of the 'schizophrenogenic mother' who is cold and domineering, leading to a lack of trust in offspring; other psychodynamic explanations may also be creditworthy
- Double bind theory (Bateson 1956) explains schizophrenia through the repeated exposure to faulty communication in which the child is put in a 'no win' situation
- Expressed emotion (Vaughn and Leff 1976) refers to a pattern of criticism and hostility in relatives of people with schizophrenia which is strongly linked to relapse
- Frith (1992): schizophrenia occurs due to faulty information processing leading to cognitive overload. The schizophrenic is unable to distinguish effectively between their thoughts and outside stimuli hence experiences hallucinations and passivity symptoms
- Bentall (2005): schizophrenia occurs due to deficits and biases in information processing which over emphasise threatening interpretations

Helmsley's 1993 model emphasises that cognitive deficits result from disturbances in information processing. However, Helmsley's account focuses on disturbance in brain structures which underpin information processing and can be seen as a largely biological model. Accounts using Helmsley's work must be read very carefully to check for relevant material.

The diathesis stress model emphasises the interaction between biological predisposition and life events / stresses and cannot gain credit for AO1. Biological explanations cannot gain credit.

AO2/3 = 16 marks

AO2 credit is awarded for commentary on the explanations presented as AO1. Commentary is likely to include discussion of research evidence which supports and / or contradicts the explanation presented, for example:

- Early studies which demonstrated links between schizophrenia and dysfunctional families (e.g. Fromm–Reichmann and Bateson) were mainly retrospective and made little use of control groups. There are difficulties drawing conclusions about cause and effect from studies of this nature & disturbed family communication may be an effect rather than a cause of schizophrenia
- Many studies (e.g. Brown 1972, Tarrier 1988) have demonstrated higher levels of relapse in families with disturbed communication. Those who live in high EE environments are more likely to relapse than those in low EE settings (Vaughn and Leff 1976, Tarrier 1993) and exposure /amount of time spent in high EE environment is also important.
- EE is also linked with other disorders such as depression and eating disorders (Kavanagh 1992) implying that this type of communication isn't unique to schizophrenia
- Frith's model has received some support from studies demonstrating changes in blood flow to areas of the brain when schizophrenics perform certain kinds of cognitive tasks

Students may also explore how psychological explanations have been used to develop effective interventions for schizophrenia. Expressed emotion is the basis of family intervention methods which have had some success at reducing relapse rates. Ethical implications of psychological models in relation to attributing blame to families could also be a source of AO2. There is a wealth of evidence demonstrating the role of genetic/biological factors in schizophrenia. This material can achieve credit providing it is used to comment on the limitations of psychological explanations.

Methodological evaluation of research is creditworthy, providing the implications for the explanation are made explicit.

Because evaluation can be generic, partial performance criteria do not apply.

AO1 mark bands**8-7 marks Sound**

Knowledge and understanding are accurate and well detailed.
A good range of relevant material has been selected.
There is substantial evidence of breadth and depth.
Organisation and structure of the answer are coherent.

6-5 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
A range of relevant material has been selected.
There is evidence of breadth and/or depth.
Organisation and structure of the answer are reasonably coherent.
OR Coverage of one psychological explanation is accurate and well detailed with a good range of relevant material (maximum 5 marks)

4-3 marks Basic

Knowledge and understanding are basic/relatively superficial.
A restricted range of material has been presented.
Organisation and structure of the answer are basic.
OR coverage of one psychological explanation is generally accurate and reasonably detailed.

2-1 mark Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Lacks organisation and structure. <i>Or coverage of one psychological explanation is basic.</i>
0 marks no creditworthy material.

AO2/3 mark bands

16-13 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
4-1 marks Rudimentary Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 02**Outline and evaluate two psychological therapies for depression (8 marks + 16 marks)****AO1 = 8 marks**

AO1 credit is awarded for an outline of two psychological therapies for depression. These need not be balanced but to achieve a mark in the top band there should be detail provided for both. Students who outline one psychological therapy are demonstrating partial performance and can be awarded up to five marks.

Biological therapies cannot be awarded credit.

Likely material includes:

- Cognitive therapy aims to identify and challenge the negative automatic thoughts held by individuals about themselves and their world
- Cognitive Behavioural Therapy adds a behavioural element to cognitive therapy, identifying rewarding experiences/ activities and encouraging the sufferer to take part in these. CBT also be offered as a type of group therapy (Hyun 2005)
- Behavioural Activation Therapy based on Lewinsohn's ideas about reinforcement identifies avoidance strategies (eg rumination) and encourages activities which have been avoided – it is a behavioural approach
- Interpersonal therapy (Sullivan) involves improving communication skills and identifying/ using available support networks
- Psychodynamic based therapies (i.e. brief psychodynamic therapy) focus on unconscious conflicts, dependency and loss during childhood
- Group therapy allows sufferers to share experiences, learn vicariously and meet others who have coped with depression.

When students present more than two therapies, credit the best two descriptions.

AO2/3 = 16 marks

AO2/3 credit is awarded for an evaluation of the psychological therapies offered. Given the wording of the specification, students are likely to structure their response around issues of effectiveness and appropriateness. Because evaluation can be generic, partial performance criteria do not apply.

Relevant outcome studies include:

- CBT has been shown to be as effective at treating depression as anti-depressants (Rush et al 1977) and provides significant improvements. (Kuyken 2007) CBT is best used in conjunction with drugs (eg Keller et al 2000 & Butler)
- Parker (2006) found that IPT does not produce as rapid an effect as medication but provides substantial improvement later on. Elkin (1989) found that IPT was as effective as cognitive and drug therapy
- Holmes (1999) has shown a limited range of effectiveness for psychodynamic approaches
- McDermot 2001 found group therapy to be as effective in reducing symptoms as individual therapy and more cost effective
- Jacobson et al (1996) found BAT as effective as cognitive therapy.

Students are also likely to discuss issues around outcome research, such as skill of therapist, type of patient (i.e. co-morbidities) along with general difficulties in measuring effectiveness (eg length of follow up).

In relation to appropriateness, students could consider when psychological therapies are appropriate in relation to severity of depression given the amount of motivation required. Psychological interventions take time and may not appear to be cost effective when compared with the rapid improvement demonstrated by drug treatments. However, they are generally free of side effects and there are no issues with dependency or tolerance.

AO1 mark bands

8-7 marks Sound

Knowledge and understanding are accurate and well detailed.
A good range of relevant material has been selected.
There is substantial evidence of breadth and depth.
Organisation and structure of the answer are coherent.

6-5 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
A range of relevant material has been selected.
There is evidence of breadth and/or depth.
Organisation and structure of the answer are reasonably coherent.
OR Outline of one psychological therapy is accurate and well detailed with a good range of relevant material (maximum 5 marks)

4-3 marks Basic

Knowledge and understanding are basic/relatively superficial.
A restricted range of material has been presented.
Organisation and structure of the answer are basic.
OR outline of one psychological therapy is generally accurate and reasonably detailed.

2-1 mark Rudimentary

Knowledge and understanding are rudimentary and may be muddled and/or inaccurate.
The material presented may be very brief or largely irrelevant.
Lacks organisation and structure.
Or outline of one psychological therapy is basic.

0 marks

no creditworthy material.

AO2/3 mark bands

16-13 marks Effective

Evaluation demonstrates sound analysis, understanding and interpretation.
The answer is well focused and shows coherent elaboration and/or a clear line of argument.
Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

12-9 marks Reasonable

Evaluation demonstrates reasonable analysis and understanding.
The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident.
Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

8-5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
4-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 03

Discuss biological explanations of phobic disorders (8 marks + 16 marks)

AO1 = 8 marks

AO1 credit is awarded for an outline of biological explanations of phobic disorders. There is a plurality requirement in the question hence students should present two or more biological explanations. These need not be balanced but to achieve a mark in the top band there should be detail of at least two. Students who cover one explanation are showing partial performance and can be awarded up to 5 marks.

Psychological explanations cannot receive credit.

Likely material includes:

- Genetic factors include: reactive autonomic nervous system/autonomic lability (Lacey 1967): genetic trait of inhibition /shyness (Kagan 1997) & genes regulating serotonin (Lesch et al 1996)
- Biochemical/endocrine explanations: overactivity in sympathetic nervous system (noradrenalin) or under activity of parasympathetic system (GABA): Stein 1996 argues that abnormal levels of serotonin and dopamine are also implicated
- Neuro anatomical factors - increased blood flow in the limbic system particularly the amygdala
- Evolutionary explanations can gain credit – ‘Preparedness’ can gain credit providing the description focuses on biological elements rather than learning.

Given the difficulty of describing genetic factors, straightforward description of genetic studies (eg family history/twin studies) can receive AO1 credit.

AO2/3 = 16 marks

AO2/3 credit is awarded for commentary on the biological explanations presented as AO1. Commentary is likely to include discussion of research evidence which supports and/or contradicts the explanation presented.

Likely material includes:

- Support for the genetic explanation: Phobias are more common in relatives of phobics than in the general population (Solyom et al 1974, Fyer 2006) Twin studies (eg Torgerson 1983, Skre 2000, and Kendler et al 2001) demonstrate higher concordance rates in MZ than DZ twins. The CR for specific phobias is highest of all (eg Ost 1992 - 64% of blood- injection phobics had at least one first degree relative with the same phobia.)
- Kagan (1997) found that children who were timid at 21 months of age were at a much greater risk of developing a phobia by age 8 than bolder children (32% versus 5 %). Longitudinal studies (eg Rosenbaum et al 1991) have supported this claim
- Scanning studies: Rauch (1995) found increased blood flow in the limbic systems of phobics using PET & Ahs et al (2009) found a relationship between ratings of distress and amygdala activity in spider/snake phobics using PET
- Merckelbach et al (1996) found higher levels of ACTH in a sample of phobics. Van der Wee (2008) found abnormal levels of dopamine and serotonin. Cryan et al (2005) found that increasing GABA reduced anxiety in primates and humans

Students could use the effectiveness of biological based therapies (eg drug treatments) to comment on biological explanations along with relevant debates such as the relative importance of nature/nurture. Implications of biological explanations (for example responsibility/blame) can also receive credit.

Methodological evaluation of research is creditworthy, providing the implications for the explanation are made explicit. Likely methodological commentary includes shared environments in genetic studies, difficulties of generalisation from animal research and difficulties establishing causality in neuro anatomical studies.

Because evaluation can be generic, partial performance criteria do not apply.

AO1 mark bands**8-7 marks Sound**

Knowledge and understanding are accurate and well detailed.
A good range of relevant material has been selected.
There is substantial evidence of breadth and depth.
Organisation and structure of the answer are coherent.

6-5 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
A range of relevant material has been selected.
There is evidence of breadth and/or depth.
Organisation and structure of the answer are reasonably coherent.
OR Coverage of one biological explanation is accurate and well detailed with a good range of relevant material (maximum 5 marks).

4-3 marks Basic Knowledge and understanding are basic/relatively superficial. A restricted range of material has been presented. Organisation and structure of the answer are basic. <i>OR coverage of one biological explanation is generally accurate and reasonably detailed.</i>
2-1 mark Rudimentary Knowledge and understanding are rudimentary and may be muddled and/or inaccurate. The material presented may be very brief or largely irrelevant. Lacks organisation and structure. <i>Or coverage of one biological explanation is basic.</i>
0 marks no creditworthy material.

AO2/3 mark bands

16-13 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12-9 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8-5 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive
4-1 marks Rudimentary Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 04**Outline and evaluate one biological explanation of OCD (4 marks + 8 marks)****AO1 = 4 marks**

AO1 credit is awarded for an outline of one biological explanation of OCD. The most likely material includes:

- Genetics: eg inheritance of sapap3 gene (Feng et al 2007): gene which regulates the production of COMT: and a glutamate transporter gene (SLC1A1) have been implicated in OCD
- Biochemical: serotonin deficiency & high levels of dopamine
- Neuroanatomical: damage to basal ganglia (Rapoport 1990) & over activity of the orbital frontal cortex or 'worry circuit'
- Evolutionary explanations: focus on the adaptive nature of compulsions.

Given the difficulty in describing genetic explanations, AO1 credit can be awarded for descriptions of research studies (eg family history/twin studies) which demonstrate the role of genetics in OCD.

As only four marks are available, examiners should be mindful of the amount of depth/detail which can be reasonably expected. Where students cover more than one biological explanation, the best should be credited.

AO2/3 = 8 marks

AO2/3 credit is awarded for an evaluation of the biological explanation presented as AO1. This is most likely to include supporting research. Methodological evaluation of research is creditworthy, providing the implications for the explanation are made explicit. Likely methodological commentary includes shared environments in genetic studies, difficulties of generalisation from animal research and difficulties establishing causality in neuroanatomical studies.

Likely material includes:

- Support for the genetic explanation: Arbor (2006) found OCD is 9 x more frequent in first degree relatives than the general population: higher concordance rates in MZ (between 68 - 88 %) than DZ (28 - 47 %) twins. (Carey and Gottesman 1981, Rasmussen and Tsuang 1986, Billett et al 1998)
- Animal studies (eg Feng 2007) have shown that mice bred to lack the sapap3 gene spend excessive amounts of time grooming and show higher signs of anxiety
- SSRI's inhibit over activity in the OFC and provide an effective treatment for about 50% of OCD sufferers (eg Murphy et al 1996). However, some studies have indicated that increasing serotonin can worsen symptoms (Hollander et al 1992)
- There is some support for the role played by basal ganglia. Characteristics of OCD are also found in sufferers of Parkinson's disease and Tourettes syndrome, both of which involve changes to basal ganglia. PET scans demonstrated increased activity in the basal ganglia of compulsion sufferers than control participants (Rauch et al 1994). However, other neuro imaging studies have shown less support
- OCD patients have less grey matter in OFC and the right frontal regions of the brain (Menses 2007).

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks no creditworthy material.

AO2/3 mark bands

8-7 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
6-5 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
4-3 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
2-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 05**Outline and evaluate one psychological therapy for OCD. (4 marks + 8 marks)****AO1 = 4 marks**

AO1 credit is awarded for an outline of one psychological therapy for OCD. Students are free to choose from a range of therapies and likely material includes:

- Exposure and Response Prevention: ERP is based on the principles of classical conditioning and involves the key elements of systematic desensitization (relaxation training, hierarchy construction and replacement of maladaptive, responses with relaxation). The key feature of ERP is the prevention from carrying out ritualistic behaviours, through verbal persuasion or distraction
- Modelling is based on the principles of social learning (i.e. observation and imitation)
- Cognitive behavioural – combines cognitive therapy (identifying and changing maladaptive beliefs) with behavioural approaches (e.g. homework)

Although rarely used for OCD, psychodynamic therapies can also receive credit providing the material is well shaped towards the treatment of OCD. Otherwise the description is rudimentary. Biological therapies cannot receive credit.

As only four marks are available, examiners should be mindful of the amount of depth/detail which can be reasonably expected. Students who present more than one therapy should receive credit for the best answer.

AO2/3 = 8 marks

AO2/3 credit is awarded for an evaluation of the psychological therapy for OCD which has been presented as AO1. Students are likely to consider issues of effectiveness and appropriateness given the focus of the specification. Better answers should include reference to outcomes studies and relevant methodological critique on measuring effectiveness - when to measure, how to measure etc.

- Several studies have demonstrated the effectiveness of ERP interventions, eg Salkovskis and Kirk, 1997, Abramowitz et al 2005, Albucher et al 1998
- Whittal 2008 compared cognitive therapy with ERP and found higher improvement (68%) in CT than ERP (54%). However, both were equally effective after two years
- The ERP dropout rate is fairly high because it can be a stressful experience. CT dropout rates are lower.

Issues of appropriateness of psychological treatments could include:

- Ethical issues – ERP can be a stressful experience for sufferers who are made to face uncomfortable situations (linked to dropout)
- Factors affecting the choice of treatment, eg financial constraints & availability of trained therapists
- Time taken for treatment – ERP and CT are relatively fast, taking between 3 and 8 weeks.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks no creditworthy material.

AO2/3 mark bands

8-7 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
6-5 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
4-3 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
2-1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Section B Psychology in Action

Question 06

Using your knowledge of explanations of media influences on anti-social behaviour, explain the different behaviours shown by Matt and John. (10 marks)

AO2 = 10 marks

AO2 credit is awarded for application of knowledge about media influences on anti-social behaviour to explain the different behaviours in the scenario:

- Matt is not upset by the violent film and finds the scenes amusing. Matt gets into fights at school
- John finds the violent scenes frightening and experiences physiological arousal (racing heart etc.) when watching. He avoids fights.

Relevant explanations include:

- Social learning theory: Matt's experience of watching violent films with his older brothers has provided ample opportunity for him to observe and imitate the behaviour. This could explain why he gets into fights. John has had little experience with violent films hence SLT would argue that he does not act aggressively as he has had little opportunity to observe or imitate aggressive behaviour
- Cognitive priming: Matt's behaviour reflects cognitive priming: viewing an aggressive model creates memories of the behaviour which are stored as scripts/schemas. Matt is more likely to interpret situations as requiring an aggressive response if cues remind him of scenes in films hence he gets into fights
- Desensitization: Matt is not shocked by the violent scenes and finds them amusing but John experiences a racing heart and feels sick showing that he is not desensitized to violence
- The general learning model (Buckley and Anderson 2006): learning from media is influenced by personal and situational variables, such as family influence.

Given the focus of the question, methodological critique of research studies is unlikely to be relevant.

Students who refer to the behaviour of one of the boys (eg Matt) can be awarded a maximum of five marks depending on the quality of the explanation.

Students who select relevant explanations but do not apply these to the scenario can be awarded up to four marks. Descriptions of Bandura's bobo doll study are not explanations and receive no marks.

AO2/3 10 Mark bands: best fit**10-9 marks Effective**

Explanation /application demonstrate sound analysis and understanding.

Application of knowledge is well focused and effective.

Ideas are well structured and expressed clearly and fluently.

8-6 marks Reasonable

Explanation /application demonstrate reasonable analysis and understanding.

Application of knowledge is generally focused.

Most ideas are appropriately structured and expressed clearly.

5-3 marks Basic

Explanation /application demonstrate basic analysis and superficial understanding.

Application is sometimes focused.

Expression of ideas lacks clarity.

2-1 marks Rudimentary

Explanation /application are rudimentary demonstrating very limited understanding.

The answer is weak, muddled and may be mainly largely irrelevant.

Deficiency in expression of ideas results in confusion and ambiguity.

0 marks

No creditworthy material is presented.

Question 07**Outline the Elaboration Likelihood Model of persuasion. (4 marks)****AO1 = 4 marks**

ELM (Petty and Cacioppo 1983) suggests that persuasive messages can be processed in one of two ways:

- Central route is used when the issue is important or the recipient is interested and involves effort of processing. Messages targeted at this route will contain factual information
- Peripheral route is used when the issue is of little importance. This involves heuristic processing. Messages targeted at this route are likely to contain images, etc.

Students may also refer to need for cognition in their description of the central route. Basic answers will identify (name) both routes and provide some description, but this may be lacking in detail. Reasonable answers will provide some coverage of both routes, although one may be more detailed than the other. Balanced coverage is required for top band marks.

Students who cover one route are restricted to a maximum mark of two.

Diagrams can receive credit.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks no creditworthy material.

Question 08**Discuss research into celebrity stalking. (4 marks + 6 marks)****AO1 = 4 marks**

Stalking is a pattern of behaviour involving repeated attempts to contact/harass causing fear and alarm.

AO1 credit is awarded for an outline of research into celebrity stalking. Likely material includes:

- Maltby's Celebrity Attitude Scale: stalking occurs at the third level of celebrity worship, the borderline pathological level
- Fixated Threat Assessment Centre study of 275 stalkers of the British Royal family found that 83.6% had some form of psychotic illness. 18% showed delusions of identity (thinking they were related) and around 12% sought intimacy/were infatuated
- Mullen's (2002) typography of stalker types/motivations based on the overall population of stalkers. The category of rejected stalkers does not generally apply to celebrity stalking.

Students may also refer to research on stalking in general (eg McCutcheon 2006 found that those with insecure attachment styles were more likely to condone stalking as acceptable). This material is creditworthy provided the implications for celebrity stalking are made clear. Otherwise a rudimentary mark is awarded.

AO2/3 6 marks

AO2/3 credit is awarded for critical discussion of research into celebrity stalking. Methodological evaluation is likely to form a major part of this:

- The FTAC study provides a very specific picture of a large group of stalkers and the clear links to mental illnesses. This allows limited generalisations to be made
- Most research on stalking relates to a known figure (ex-partner etc). Celebrity stalking is rare, bringing up issues of generalisation from Mullen's work
- It is difficult to generalise from case studies which are 'one off'. These often rely on retrospective accounts of childhood, attachment type etc
- New forms of cyber stalking/trolling etc have received little systematic research as yet.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organization and structure.
0 marks no creditworthy material.

AO2/3 mark bands (6 marks)**6 marks Effective.**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and / or a clear line or argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

5-4 marks Reasonable

Commentary demonstrates reasonable analysis, understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.

3-2 marks Basic

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Question 09**Outline the biological approach to explaining relapse in addiction. (4 marks)****AO1 = 4 marks**

AO1 credit is awarded for an outline of the biological processes associated with relapse in addiction. The biological approach focuses on unpleasant withdrawal symptoms when the substance is removed as the primary cause of relapse.

- Substances such as nicotine/alcohol activate the dopamine reward pathway and the brain adapts to be in balance when the substance is present (neuroadaptation)
- When the substance is discontinued, the adaptation is no longer needed and is experienced as withdrawal symptoms which are unpleasant and immediately relieved by using the substance.

Students may contextualise their explanation by referring to nicotine or other substance dependencies. The nicotine regulation model could also be used here. Genetic factors could be used (eg DRD2 gene) but material would need to be shaped towards relapse.

Basic answers are likely to refer to withdrawal symptoms. Better answers are likely to explore tolerance & neuroadaptation.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks no creditworthy material.

Question 10**Discuss two risk factors which make people more vulnerable to addiction.****(4 marks + 6 marks)****AO1 = 4 marks**

AO1 credit is awarded for an outline of two factors which effect vulnerability to addiction. The specification identifies stress, peers, age and personality as risk factors.

However, students could choose to discuss other risk factors such as genetics, parental substance use or low self-esteem. Answers should be read carefully and unfamiliar material checked with reliable sources.

As only four marks are available, examiners should be mindful of the amount of depth/detail which can be reasonably expected. Where students cover more than two factors, the best two should be credited.

Coverage of one risk factor only, three marks maximum.

Likely material includes;

- Age: there is a positive correlation between age at first use and risk of developing later addiction with both alcohol and nicotine
- Stress: has an impact on both initiation and relapse
- Peers: are influential in initiation of substance use and behavioural addiction such as gaming and gambling
- Personality: Eysenck's dimension of extroversion – introversion suggests that extroverts who are chronically under aroused may be more likely to use substances which act as stimulants at low doses. Risk seeking personality types may also be more at risk as are high 'self-monitors' who are sensitive to social situations and to others opinions.

AO2/3 = 6 marks

AO2 credit is awarded for critical discussion of the risk factors described. A likely route to AO2 is research evidence on risk factors and commentary on the quality of that evidence. Credit can also be awarded for wider discussion, for example of the interaction between factors (eg age and peer influence) or comparison of their relative importance.

Likely material includes:

- Tyas (1998) Bricker et al (2006) peer influence & smoking, Derevensky (1999) influence of peer networks on adolescent gambling
- Childs et al (2010) study of stress and smokers, Capell and Greeley's tension reduction hypothesis of alcohol use (1987)
- Lader and Matheson (1991): parental influence on smoking
- Low self-esteem in problem gamblers (Gupta and Derevensky 1998) and in addiction to mobile phones (Leung 2007).

Commentary on one risk factor only, four marks maximum.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks No creditworthy material.

AO2/3 mark bands

6 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and / or a clear line or argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
5-4 marks Reasonable Commentary demonstrates reasonable analysis, understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning
3-2 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive
1 mark Rudimentary Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 11

Use your knowledge of the prevention of addictive behaviour to explain why these three strategies should reduce smoking. You should refer to the theory of planned behaviour in your answer. (10 marks)

AO2 = 10 marks

Students are required to apply their knowledge of the prevention of addiction, to explain why the strategies in the scenario should reduce smoking. They are explicitly instructed to use the Theory of Planned Behaviour. TPB refers to behavioural attitudes, subjective norms and perceived behavioural control, which lead to intentions.

The strategies in the scenario are:

- Banning smoking in public/ workplaces
- Graphic images on cigarette packets
- Education programmes in schools.

Each of these strategies can be linked to TPB as well as other research on prevention:

- Bans aim to reduce access to smoking models in public areas. According to TPB this should alter social norms about the prevalence of smoking. In relation to social learning theory, the removal of smoking role models should reduce uptake as there will be less opportunity for learning via imitation. Relevant studies include Fichtenberg and Glantz (2012) & Jones (2011) on the impact of smoke free workplaces
- Graphic images are designed to alter attitudes to smoking (TBP) and influence intentions not to smoke. Students could refer to research on the impact of graphic images
- Education programmes are designed to increase feelings of self-efficacy (TPB) as well as altering attitudes towards smoking.

To achieve top band marks, students should discuss all three strategies. Reasonable marks can be awarded to those who cover one or two strategies in depth.

Students who ignore the injunction to refer to TPB should be awarded a rudimentary mark. Students who describe TPB but do not apply this to the scenario can be awarded up to four marks.

AO2/3 10 mark bands: best fit**10-9 marks Effective**

Explanation/application demonstrates sound analysis and understanding.
Application of knowledge is well focused and effective.
Ideas are well structured and expressed clearly and fluently.

8-6 marks Reasonable

Explanation /application demonstrate reasonable analysis and understanding.
Application of knowledge is generally focused.
Most ideas are appropriately structured and expressed clearly.

5-3 marks Basic

Explanation /application demonstrate basic analysis and superficial understanding.
Application is sometimes focused. Expression of ideas lacks clarity.

2-1 marks Rudimentary Explanation/application is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Question 12

What criticisms would a scientist make of this study of paranormal cognition? (4 marks)

AO2 = 4 marks

AO2 credit is awarded for application of knowledge about methodological issues related to the study of paranormal cognition (ESP) to the scenario.

Methodological flaws include:

- Sensory leakage: the twins are in the same room separated by a screen, so information could be transmitted by normal means (eg changes in breathing rate)
- Ineffective randomisation: the selection of the target image is done by the sender rather than randomly. Selection could relate to the senders interests, hence the receiver who knows them well could guess which image they would choose
- If the images are passed from the sender to the receiver manually (i.e. on paper), the target images could have a bent corner or mark on the picture.

Students are asked to identify criticisms, hence should cover two or more. Students who focus on one criticism can be awarded a maximum of two marks.

Speculative methodological criticisms are not creditworthy, eg sample size.

Ethical criticisms cannot receive credit.

AO2 4 Mark bands: best fit

4 marks Effective Application demonstrates sound analysis and understanding. Application of knowledge is well focused and effective.
3 marks Reasonable Application demonstrates reasonable analysis and understanding. Application of knowledge is generally focused.
2 marks Basic Application demonstrates basic analysis and superficial understanding. Application is sometimes focused.
1 marks Rudimentary Application is rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant.
0 marks No creditworthy material is presented.

Question 13

Explain how this study would need to be changed to make it more scientific. You should refer to the criticisms that you identified in your answer to question 12. (6 marks)

AO2 = 6 marks

AO2 credit is awarded for application of knowledge about methodological issues and scientific method to redesign the study described. Students are instructed to approach this by tackling the flaws they have identified and explaining how these could be put right; other relevant improvements can also receive credit.

- Sensory leakage could be controlled by having the sender and receiver kept in separate rooms which are unconnected and electro magnetically shielded. Alternatively sensory deprivation could be used
- The target image should be randomly selected from the set of images and the sender told which image which to transmit. Images should be non-meaningful
- Use of manual selection of images could be replaced with computer selection of images (sensory shielding)
- Participants should be randomly allocated to roles of sender and receiver.

AO2 mark bands**6 marks Effective**

Application demonstrates sound analysis and understanding.

Application of knowledge is well focused and effective.

5-4 marks Reasonable

Application demonstrates reasonable analysis and understanding.

Application of knowledge is generally focused.

3-2 marks Basic

Applications demonstrate basic analysis and superficial understanding.

Application is sometimes focused.

1 marks Rudimentary

Application is rudimentary demonstrating very limited understanding.

The answer is weak, muddled and may be mainly largely irrelevant.

0 marks

No creditworthy material is presented.

Question 14**Outline one explanation for superstitious behaviour. (4 marks)****AO1 = 4 marks**

AO1 credit is awarded for one explanation of superstitious behaviour. Relevant explanations include:

- Behavioural: accidental pairing of a behaviour with a positive outcome leads to the two being incorrectly linked (eg Skinner 1948)
- The need for control/illusion of control in stressful situations (Malinowski 1948, Watson et al 2007)
- Magical thinking: attempts to influence an outcome in a test/ competition
- Type 1 and Type 2 errors: it is better to assume two unrelated events are linked (Type 1 error) than to miss a genuine link (Type 2).

As only four marks are available examiners should be mindful of the amount of depth/detail which can be reasonably expected. When a student presents more than one explanation, the best should be credited.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks No creditworthy material.

Question 15**Discuss research into out of body experiences. (4 marks + 6 marks)****AO1 = 4 marks****AO2/3 = 6 marks**

AO1 credit is awarded for research into OBEs. As research refers to theories/explanations or studies students can approach this question in two different ways. They can present explanations as AO1 and support from research studies as AO2. Alternatively, they can present research studies as AO1 with methodological evaluation as AO2.

Responses will need to be read carefully to establish how students have tackled the question.

Explanations of OBEs include:

- Neuroscience: Problems in the neural pathway from the pre frontal cortex to the temporo-parietal junction: Stimulation of the temporal lobe of the brain (Blanke)
- Cognitive: OBEs result from disruption of visual self-perception or a shift to a bird's eye view (Blackmore 1987)
- The sleep hypothesis (Palmer, 1978, McCreery 2006): OBEs occur during a hypnogogic state
- Belief in OBEs is associated with personality characteristics such as fantasy proneness.

Research studies:

- Blanke et al (2005) produced OBEs artificially through stimulating the angular gyrus. This supports the claim of a biological underpinning to the OBE
- Easton et al (2009): identified difficulties in locating the self in space in an OBE sample
- Ehrsson: OBEs can be induced through disrupting sense of visual perception.

Both of the above studies demonstrate scientific testing of OBEs in controlled conditions. These are far from the usual conditions in which OBEs are reported but have some advantages over case study evidence which provides little information about causes of OBE's. Both involve relatively small samples.

AO1 mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organization and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organization and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organization and structure.
0 marks No creditworthy material.

AO2/3 mark bands**6 marks Effective.**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

5-4 marks Reasonable

Commentary demonstrates reasonable analysis, understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.

3-2 marks Basic

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Section C Research methods**Question 16****What were the aims in this study? (2 marks)****AO3 = 2 marks**

Credit is awarded for an understanding of why this study has been carried out. This could be phrased in different ways (eg statement, question). Award two marks for an accurate answer which refers to comparing the effectiveness of long and short forms of CBT **OR** to comparing different forms of CBT with a control group.

Award one mark for an incomplete or muddled answer (*'to assess the effectiveness of CBT'*).

Award 0 marks for any form of hypothesis.

Question 17**Identify one variable which does not appear to have been controlled in this trial. Explain how this may have influenced the outcome. (3 marks)****AO3 = 3 marks**

Award one mark for identifying one variable which was not controlled and two further marks for explaining how this could influence the outcome of the therapy.

Possible answers could include:

- The length of time before second assessment of symptoms was 12 weeks in conditions 1 & 3 compared to 5 weeks in condition 2
- Use of different therapists in conditions 1 & 2
- The interaction between sex of therapist and patient
- Whether or not patients carried out homework tasks
- Individual differences such as age and gender
- Whether patients were receiving other forms of therapy or medication.

Credit any appropriate suggestion.

Eg: *'An extraneous variable was the length of time before second assessment of symptoms (1 mark). This was 12 weeks in conditions 1 & 3 compared to 5 weeks in condition 2. This could have influenced the outcome of the study as the benefits of brief CBT have less time to show than the other two conditions (1 mark). This could lead to its effectiveness being underestimated (1 mark).'*

Question 18

What is meant by validity? How could the psychologist have assessed the validity of the questionnaire used to measure the severity of symptoms? (4 marks)

AO3 = 4 marks

Award one mark for a definition of validity.

Three further marks for describing how validity of the questionnaire could be assessed. Possible methods include:

- Taking another measure of symptoms from the same participants (eg Doctor or family member) and comparing the two sets of scores. If the scores agree, the questionnaire has high validity(concurrent validity)
- Ask an expert(s) in the field to assess the questions to see if they are an accurate measure of panic attacks (content validity)
- Assess how closely the questions relate to underlying theoretical constructs (i.e. how well they relate to panic symptoms) – construct validity.

Less rigorous methods include looking at the questions to see if they appear valid 'on the face of it' (face validity).

Students can achieve two marks by providing information about one or more appropriate methods in outline. Three marks can be awarded when answers provide clear description of the entire process of checking validity.

Eg: *'Validity refers to whether or not the questionnaire measures what it is supposed to measure (1 mark). Concurrent validity would involve getting a family member to assess the symptoms (1 mark) and seeing how closely they match the score on the questionnaire (1 mark). If the two matched, the questionnaire would have high validity (1 mark).'*

No marks for simply naming types of validity.

Question 19

The psychologist asked the 60 patients for fully informed consent to take part in this trial. What should the psychologist have told the patients so that they were able to give their consent? (5 marks)

AO3 = 5 marks

In order to gain fully informed consent for this trial, patients should be informed of key information provided in the stem about the clinical trial.

- They will be allocated to one of the conditions and they may not receive therapy
- If they do receive therapy it will be Cognitive Behavioural
- The time period for the study (ie up to 12 weeks)

In addition, students could refer to other relevant ethical information such as:

- Data should be anonymised so they are not identifiable in the results
- Patients should be made aware that they are free to withdraw themselves or their data from the clinical trial if need be
- They may be asked to complete homework assignments outside the therapy sessions.

For five marks, students must cover the top three bullet points. Answers focus only on generic ethical issues (freedom to withdraw, confidentiality) can gain a maximum of two marks.

AO3 mark bands

5 marks Sound Full details are provided including the top three bullet points. Organization and structure of the answer are coherent.
4-3 marks Reasonable There is coverage of at least one of the top bullet points. Organization and structure of the answer are reasonably coherent.
2 marks Basic Basic information is provided about the key elements of the study. Organization and structure of the answer are basic.
1 mark Rudimentary Very little relevant information is provided about the research study. Lacks organization and structure.
0 marks No creditworthy material.

Question 20

What do the data show about the effectiveness of the therapies for panic attacks? Refer to mean scores, standard deviations and the results of the statistical test in your answer.
(6 marks)

AO3 = 6 marks

The main findings/conclusions are as follows:

- The mean scores show that both types of CBT lead to some improvement in symptoms and appear superior to being allocated to a waiting list
- The SD score is larger for the brief CBT than the other groups, showing that the scores are more spread out in this condition than the other two groups. Hence, there was more variation in response to the short version of CBT
- The statistical tests show no significant difference between short and long versions of CBT
- The waiting list condition also demonstrated a minor improvement in symptoms. Students could refer to spontaneous remission here.

AO3 mark bands

6 marks Sound
Answer draws accurate findings/conclusions from mean scores, SD's and statistical test. Organization and structure of the answer are coherent.
5-4 marks Reasonable
Answer draws accurate findings/conclusions from two out of three data sources. Third finding may be omitted or inaccurate. Organization and structure of the answer are reasonably coherent.
3-2 marks Basic
Answer includes one or two accurate findings/conclusions but these lack detail. At the bottom of the band, the answer may be muddled. Organization and structure of the answer are basic.
1 mark Rudimentary
Very little information is provided about the findings/conclusions. Lacks organization and structure.
0 marks
No creditworthy material.

Question 21

Imagine that you are writing up the report for this experiment. What is the purpose of the abstract in a psychological report? (2 marks)

AO3 = 2 marks

Award one mark for a brief answer (*'the purpose of an abstract is to provide a short summary of the study'*) and two marks for a detailed answer referring to providing sufficient information to establish if the full report is worth reading.

Question 22

Discuss applications and/or implications that might arise from this piece of research. (5 marks)

AO3 = 5 marks

There are a number of implications and applications in the results of this study. Students can gain credit by discussing one or two of these in depth or several in less detail.

- If brief CBT works as well as traditional CBT, this has practical applications. It would save time for those taking part and for therapists delivering CBT
- The wider spread of results in the brief CBT condition implies that this form of therapy may be more effective for some people than others. Clinicians need to assess patients carefully to decide who might be suitable and complete homework
- Psychological problems can improve with the passage of time without treatment (spontaneous remission) meaning that there may be some merit in asking people to wait for treatment if their symptoms are not severe
- An important implication is cost effectiveness. If brief CBT works as well as the longer traditional format, this would have a number of advantages including reducing costs for the NHS.

Credit any other relevant implications or applications.

AO3 mark bands

5 marks Sound Discussion of implications/applications is accurate and well detailed. Organization and structure of the answer are coherent.
4-3 marks Reasonable Discussion of implications/applications is generally accurate and reasonably detailed. Organization and structure of the answer are reasonably coherent.
2 marks Basic Discussion of implications/applications is basic/relatively superficial or brief. Organization and structure of the answer are basic.
1 mark Rudimentary Discussion of implications/applications is muddled and/or inaccurate. Lacks organization and structure.
0 marks No creditworthy material.

Question 23

Explain how you would record the data from these interviews and your reason for choosing this method. (3 marks)

A03 = 3 marks

Three marks are available for a description of how to collect and record the data from the interviews. Possible methods include:

- Audio recording
- Video recording (filming)
- Making written notes during the interview.

Award one mark for identifying a method, one mark for explaining why the method would be used and a third mark for elaboration of either.

Eg: *'I would choose to audio record the data using my phone (1 mark). This would be less intrusive than filming the patient (1 mark) so they would be more likely to agree to take part or be honest (1 mark).'*

Question 24

Explain how you would analyse the qualitative data from the interviews. (5 marks)

AO3 = 5 marks

Five marks are awarded for the explanation of how the qualitative data would be analysed. A maximum of one mark should be awarded for identifying one or more appropriate methods and a further four marks for explanation of how the analysis would be carried out.

There are many different methods for analysing qualitative data and examiners should read the material presented carefully.

Two common methods include:

- Content analysis; this method would involve identifying important categories from a sub sample of interview responses (for example references to homework or warmth in the therapist). The researchers would then work through the written data, counting the number of occurrences of each of the categories to produce quantitative data
- Thematic analysis: This method would involve reading and rereading (familiarisation) the written transcripts carefully. Coding would involve looking for words which cropped up repeatedly in transcripts. These could then be combined to reduce the number of codes into three or four themes. The data would stay in qualitative format and would not be reduced to numbers.

Assessment Objectives

Question	AO1	AO2/AO3	Total
Section A			
1	8	16	24
2	8	16	24
3	8	16	24
4	4	8	12
5	4	8	12
Section B			
6		10	10
7	4		4
8	4	6	10
9	4		4
10	4	6	10
11		10	10
12		4	4
13		6	6
14	4		4
15	4	6	10
Section C			
16		2	2
17		3	3
18		4	4
19		5	5
20		6	6
21		2	2
22		5	5
23		3	3
24		5	5

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General Certificate of Education
Advanced Level Examination
June 2013

Psychology (Specification A) PSYA4

Unit 4 Psychopathology, Psychology in Action and Research Methods

Monday 17 June 2013 9.00 am to 11.00 am

For this paper you must have:

- an AQA 16-page answer book.

Time allowed

- 2 hours

Instructions

- Use black ink or black ball-point pen.
- Write the information required on the front of your answer book. The **Examining Body** for this paper is AQA. The **Paper Reference** is PSYA4.
- In **Section A**, choose **one** topic. Answer **all** questions on the topic you choose. Where appropriate, refer to theories and/or studies.
- In **Section B**, choose **one** topic. Answer **all** questions on the topic you choose. Where appropriate, refer to theories and/or studies.
- In **Section C**, you should answer **all** questions.
- Do all rough work in your answer book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 83.
- In **Section A** and in **Section B**, you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

There are no questions printed on this page

Section A Psychopathology

Choose **one** topic from **Section A**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Schizophrenia

- | | |
|---|---|
| 0 | 1 |
|---|---|
- Discuss biological explanations for schizophrenia.
- (8 marks + 16 marks)*
-

Topic: Depression

- | | |
|---|---|
| 0 | 2 |
|---|---|
- Outline the clinical characteristics of depression.
- (4 marks)*

- | | |
|---|---|
| 0 | 3 |
|---|---|
- Outline
- one**
- biological explanation for depression.
- (4 marks)*

- | | |
|---|---|
| 0 | 4 |
|---|---|
- Evaluate
- one or more**
- biological explanations for depression.
- (16 marks)*
-

Topic: Phobic Disorders

- | | |
|---|---|
| 0 | 5 |
|---|---|
- Discuss issues relating to the classification
- and/or**
- diagnosis of phobic disorders.
- (4 marks + 8 marks)*

- | | |
|---|---|
| 0 | 6 |
|---|---|
- Outline and evaluate
- one**
- psychological explanation for phobic disorders.
- (4 marks + 8 marks)*
-

Topic: Obsessive Compulsive Disorder

- | | |
|---|---|
| 0 | 7 |
|---|---|
- Discuss issues relating to the classification
- and/or**
- diagnosis of obsessive compulsive disorder (OCD).
- (4 marks + 8 marks)*

- | | |
|---|---|
| 0 | 8 |
|---|---|
- Outline and evaluate
- one**
- biological explanation for obsessive compulsive disorder (OCD).
- (4 marks + 8 marks)*
-

Turn over for Section B

Turn over ►

Section B Psychology in Action

Choose **one** topic from **Section B**. Answer **all** questions on the topic you choose.

Each topic carries 24 marks.

Where appropriate, refer to theories and/or studies.

Topic: Media Psychology

- | | | |
|---|---|--|
| 0 | 9 | Discuss what research studies have told us about the positive effects of computers and/or video games on behaviour. (4 marks + 6 marks) |
| 1 | 0 | Describe one explanation for the persuasiveness of television advertising. (4 marks) |
| 1 | 1 | As part of his research into intense fandom, a psychologist examined comments posted on a fan website for a famous 'boyband'. He found that most fans discussed concerts, favourite songs and band souvenirs. However, a small number were more intensely involved with the band. These fans spent their weekends following the band around the country when they were on tour, in the hope of catching a glimpse of their favourite celebrities. They visited the fan website several times a day to discuss the latest tweets posted by the band members on Twitter.

How would psychological research into intense fandom explain the different kinds of relationships with celebrities in the above scenario? (10 marks) |

Topic: The Psychology of Addictive Behaviour

- 1 2** Sam has recently left school and started work. His new job is monotonous and he often feels bored. On the way home from work, he and his new workmates call at the betting shop and place a couple of bets. Sam has a few wins in the first week and finds the atmosphere very exciting. He starts to visit the betting shop after work most days, and is now spending over half of his wages on gambling.
- Using your knowledge of the psychology of addictive behaviour, explain some of the reasons for Sam's addiction to gambling. *(10 marks)*
- 1 3** Outline the theory of planned behaviour as a model for addiction prevention. *(4 marks)*
- 1 4** Discuss the effectiveness of public health interventions in reducing addictive behaviour. *(4 marks + 6 marks)*
-

Topic: Anomalistic Psychology

- 1 5** Outline **two** methodological issues involved in the study of psychokinesis. *(4 marks)*
- 1 6** Most people have several dreams each night, and a small number of these dreams come true a week or so later. Former American president, Abraham Lincoln, is believed to have dreamt of his assassination, two weeks before it happened.
- Some people interpret dreams coming true as evidence for the paranormal. However, others assume that probability or coincidence can explain this anomalous experience.
- Explain why some people see dreams which later come true as evidence for the paranormal, whereas other people do not. Use your knowledge of probability judgements **and/or** coincidence in your answer. *(10 marks)*
- 1 7** Discuss what research has shown about psychic healing. *(4 marks + 6 marks)*

Turn over for Section C

Turn over ►

Section C Psychological Research and Scientific Method

Answer **all** questions in this section.

This topic carries 35 marks.

Topic: Psychological Research and Scientific Method

In an observational study, 100 cars were fitted with video cameras to record the driver's behaviour. Two psychologists used content analysis to analyse the data from the films. They found that 75% of accidents involved a lack of attention by the driver. The most common distractions were using a hands-free phone or talking to a passenger. Other distractions included looking at the scenery, smoking, eating, personal grooming and trying to reach something within the car.

1 8 What is content analysis? (2 marks)

1 9 Explain how the psychologists might have carried out content analysis to analyse the film clips of driver behaviour. (4 marks)

2 0 Explain how the two psychologists might have assessed the reliability of their content analysis. (3 marks)

The psychologists then designed an experiment to test the effects of using a hands-free phone on drivers' attention. They recruited a sample of 30 experienced police drivers and asked them to take part in two computer-simulated driving tests. Both tests involved watching a three-minute film of a road. Participants were instructed to click the mouse as quickly as possible, when a potential hazard (such as a car pulling out ahead) was spotted.

Each participant completed two computer-simulated driving tests:

- Test A, whilst chatting with one of the psychologists on a hands-free phone
- Test B, in silence, with no distractions.

The order in which they completed the computer tests was counterbalanced.

2 1 Explain why the psychologists chose to use a repeated measures design in this experiment. (3 marks)

2 2 Identify **one** possible extraneous variable in this experiment. Explain how this variable may have influenced the results of this experiment. (3 marks)

2 3 Explain how **one** factor in this experiment might affect its external validity. (3 marks)

2 4 Explain **one or more** ethical issues that the psychologists should have considered in this experiment. (4 marks)

2 5 Write a set of standardised instructions that would be suitable to read out to participants, before they carry out Test A, chatting on a hands-free phone. (5 marks)

The computer simulator measured two aspects of driver behaviour:

- the number of hazards detected by each driver
- the time taken to respond to each hazard, in seconds.

The mean scores for each of these measures is shown in **Table 1**.

Table 1 Table to show the mean number of hazards detected and mean reaction times in seconds for Test A and Test B

Mean scores	Test A: with hands-free phone	Test B: in silence
Number of hazards detected	26.0	23.0
Reaction time in seconds	0.45	0.27

The psychologists then used an inferential statistical test to assess whether there was a difference in the two conditions.

2 6 Identify an appropriate statistical test to analyse the difference in the number of hazards detected in the two conditions of this experiment. Explain why this test of difference would be appropriate. (3 marks)

They found no significant difference in the number of hazards detected ($p > 0.05$), but there was a significant difference in reaction times ($p \leq 0.01$).

2 7 Explain why the psychologists did not think that they had made a Type 1 error in relation to the difference in reaction times. (2 marks)

2 8 Replication is one feature of the scientific method. The psychologists decided to replicate this experiment using a larger sample of 250 inexperienced drivers.

Explain why replication of this study would be useful. (3 marks)

END OF QUESTIONS

There are no questions printed on this page



General Certificate of Education (A-level)
June 2013

Psychology A

PSYA4

(Specification 2180)

**Unit 4: Psychopathology, Psychology in Action
and Research Methods**

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Section A Psychopathology

Topic: Schizophrenia

Question 01

AO1 = 8 marks

AO1 credit is awarded for a description of biological explanations of schizophrenia. As the question refers to explanations in the plural, candidates are required to present two or more explanations.

The main biological explanations of schizophrenia are as follows:

- genetics – there is considerable evidence of a genetic predisposition to develop schizophrenia
- biochemistry – the dopamine hypothesis argues that elevated levels of dopamine are related to symptoms of schizophrenia
- neuroanatomy – differences in brain structure (including ventricle size, brain weight and symmetry) have been identified in people with schizophrenia.

Other creditworthy explanations include season of birth, viral influences, birth complications, links to substance abuse and neuropsychological models put forward by Frith and Helmsley. Examiners should read material on Frith and Helmsley carefully to ensure that emphasis is on the neurological aspects of these models before awarding credit. Evolutionary explanations can gain credit.

Given the difficulty of describing genetic explanations in detail, AO1 credit is given for straight descriptions of twin, family and adoptive studies which support the genetic explanation of schizophrenia (e.g. Kendler).

If candidates present one explanation only, this is partial performance and can receive a maximum of 6 marks only. Merely naming appropriate explanations maximum of 1 mark.

AO2/AO3 = 16 marks

AO2/AO3 credit is awarded for a discussion of biological explanations for schizophrenia. Many evaluation points are relevant to more than one explanation, so partial performance criteria are unlikely to apply.

Evaluation will depend on the explanation offered, but is likely to include supporting evidence and methodological critique of that evidence.

Methodological evaluation of research is creditworthy, provided the implications for the explanation are made explicit.

Likely material includes:

- genetics – quality of evidence, difficulties in separating environmental and genetic influences in family history and twin studies, sample sizes in twin studies, changes in diagnostic criteria for schizophrenia and zygosity
- biochemistry – difficulties in establishing cause and effect, supporting evidence from post mortem/scanning studies and animal studies, strengths and limitations of evidence

- neuroanatomy – difficulties in establishing cause and effect, supporting evidence from post mortem/scanning studies, strengths and limitations of evidence
- the diathesis stress model can be used to demonstrate the interplay of genetic and environmental factors.

Explicit comparison with other approaches/explanations can be an effective way of achieving AO2/AO3 credit. Candidates who link biological explanations such as genetic basis of schizophrenia to the dopamine system are also likely to achieve good AO2/AO3 marks.

AO1 Mark bands Knowledge and understanding

8 - 7 marks Sound

Knowledge and understanding are accurate and well detailed.
A good range of relevant material has been selected.
There is substantial evidence of breadth and depth.
Organisation and structure of the answer are coherent.

6 - 5 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
A range of relevant material has been selected.
There is evidence of breadth and/or depth.
Organisation and structure of the answer are reasonably coherent.
Partial performance: Knowledge and understanding of one explanation is accurate and well detailed.

4 - 3 marks Basic

Knowledge and understanding are basic/relatively superficial.
A restricted range of material has been presented.
Organisation and structure of the answer are basic.
Partial performance: Knowledge and understanding of one explanation is generally accurate and reasonably detailed.

2 - 1 mark Rudimentary

Knowledge and understanding are rudimentary and may be muddled and/or inaccurate.
The material presented may be very brief or largely irrelevant.
Lacks organisation and structure.
Partial performance: Knowledge and understanding of one explanation is basic.

0 marks

No creditworthy material.

AO2/AO3 Mark bands Commentary

16 - 13 marks Effective

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

12 - 9 marks Reasonable

Commentary and/or evaluation demonstrate reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
Partial performance demonstrates sound analysis and understanding. It is well focused and shows coherent elaboration and/or a clear line of argument. Maximum 10 marks.

8 - 5 marks Basic

Commentary and/or evaluation demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
Partial performance demonstrates reasonable analysis and understanding. It is generally focused and shows reasonable elaboration and/or a clear line of argument.

4 - 1 marks Rudimentary

Commentary and/or evaluation are rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
Partial performance demonstrates basic, superficial understanding. It is sometimes focused and shows some evidence of elaboration.

0 marks

No creditworthy material is presented.

Topic: Depression

Question 02

Note that candidates can legitimately cover unipolar and/or bipolar depression for questions 02, 03 and 04.

AO1 = 4 marks

AO1 credit is awarded for an outline of the clinical characteristics of depression. It is acceptable for candidates to cover major depressive disorder or bipolar disorder.

Depression is characterised by a range of symptoms and candidates could refer to emotional, cognitive (suicidal thoughts) physical (weight loss or gain) or behavioural symptoms (decrease in sexual activity). A diagnosis of MDD can be made when five symptoms are present for at least two weeks.

To achieve top band marks at least one of two 'core' symptoms should be present:

- depressed mood for most of the day
- diminished interest or pleasure in activities.

Epidemiology i.e. prevalence, gender differences, prognosis etc., are creditworthy.

AO1 Mark bands

Knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

Question 03

AO1 = 4 marks

AO1 credit is awarded for an outline of one biological explanation of depression. If more than one explanation is presented, the better/best should be credited.

The main biological explanations of depression are:

- genetic – there is considerable evidence that the predisposition to develop depression is inherited
- amine hypothesis – low levels of mono amines predominantly noradrenaline and serotonin
- neuroanatomical – damage to amine pathways in post-stroke patients
- neuroendocrine (hormonal) factors – elevated cortisol levels related to stress, female hormones.

It is also acceptable to describe the evolutionary approach. Given the difficulty of describing genetic explanations in detail, AO1 credit is given for straight descriptions of twin, family and adoptive studies which support the genetic explanation.

AO1 Mark bands	Knowledge and understanding
4 marks Sound	Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable	Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic	Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary	Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks	No creditworthy material.

Question 04

AO2/AO3 = 16 marks

AO2/AO3 credit is awarded for an evaluation of one or more biological explanations for depression. Evaluation will depend on the explanation(s) offered, but is likely to include supporting evidence and methodological critique of that evidence.

Likely material includes:

- genetics – quality of evidence, difficulties in separating environmental and genetic influences in family history and twin studies, sample sizes in twin studies, changes in diagnostic criteria
- biochemistry – actions of drugs (e.g. SSRI's and MAOI's) in alleviating symptoms, difficulties in establishing cause and effect, strengths and limitations of evidence
- neuroanatomy – difficulties in establishing cause and effect
- the diathesis stress model can be used to demonstrate the interplay of genetic and environmental factors in depression
- debate about the relative importance of different causal factors
- the usefulness of a combined approach to explaining depression
- relevant debates such as nature/nurture, reductionism and determinism.

Methodological evaluation of research is creditworthy, provided the implications for the explanation are made explicit.

Explicit comparison with other approaches/explanations can be an effective way of achieving AO2/AO3 credit. Candidates who link biological explanations such as genetic basis of depression to the serotonin system are also likely to achieve good AO2/AO3 marks.

AO2/AO3 Marks bands Evaluation

16 - 13 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
12 - 9 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
8 - 5 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
4 - 1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Topic: Phobic Disorders

Question 05

AO1 = 4 marks

For AO1 credit, candidates need to identify issues related to the classification and/or diagnosis of phobias. The specification directs them towards reliability and validity of classification and diagnosis, so these are likely to form part of the answer. Only 4 marks are available. Detailed description of issues is not expected.

Candidates who present lists of signs and symptoms of phobias or who describe classification systems are not addressing the issues surrounding diagnosis and classification.

AO2/AO3 = 8 marks

AO2/AO3 credit is awarded for a discussion of the issues identified. This is likely to focus on the importance of reliable and valid classification and diagnosis in relation to effective treatment and the consequences of unreliable diagnosis in relation to phobias. It is unlikely that Rosenhan's study can be made relevant to the topic of phobias but such material should still be read carefully.

The table shows one way in which candidates may organise material as AO1 and AO2. However, there are other ways. For example, symptom overlap could be an issue or

consequence depending on how it is presented. Examiners should read answers carefully to identify how material is presented as AO1 and AO2.

Likely issues (AO1)	Discussion (AO2)
The reliability of ICD and DSM classification systems	There is reasonably good agreement between DSM iv and ICD. However, DSM classifies agoraphobia as panic disorder when panic attacks are present. There are slight differences in the symptoms of social phobias.
Difficulty in establishing 'cut off' points between normal anxiety	There is a debate about whether or not anxiety should be medicalised and sufferers labelled.
The benefits of diagnosis in accessing support/treatment	Diagnosis can produce benefits in terms of rapid and effective treatment but can also have negative effects. Labelling may influence employment prospects and motivation.
The validity of diagnosis and the problem of co-morbidity with other disorders	Social phobias are particularly hard to diagnose: some people are extremely shy and this is hard to distinguish from a true social phobia. Phobias can co-occur (e.g. social and agoraphobia) making it difficult to identify which should be treated. This is important, as establishing the primary disorder influences the treatment offered. There is some overlap between specific phobias (e.g. knives) and OCD – these should be distinguishable by skilled clinicians.

Other relevant issues include problems associated with diagnosis, e.g. labelling, adopting a sick role, and culture and gender differences in symptom presentation.

AO1 Mark bands Knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

AO2/AO3 Mark bands Commentary

8 - 7 marks Effective

Commentary and/or evaluation demonstrate sound analysis, understanding and interpretation.

The answer is well focused and shows coherent elaboration and/or a clear line of argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

6 - 5 marks Reasonable

Commentary and/or evaluation demonstrate reasonable analysis and understanding.

The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident.

Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

4 - 3 marks Basic

Commentary and/or evaluation demonstrate basic, superficial understanding.

The answer is sometimes focused and shows some evidence of elaboration.

Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

2 - 1 marks Rudimentary

Commentary and/or evaluation are rudimentary, demonstrating a very limited understanding.

The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant.

Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Question 06

AO1 = 4 marks

AO1 credit is awarded for an outline of one psychological explanation for phobias. Given the requirement for 4 marks, this should contain a reasonable level of detail. Note that candidates could present an approach (e.g. behavioural) or specific explanation (classical conditioning).

The main psychological explanations for phobias are as follows:

- behavioural explanations – based on classical and operant conditioning
- social learning theory – observation and modeling of phobias
- cognitive/cognitive behavioural explanations – errors in logic and irrational beliefs
- psychodynamic – defences against repressed impulses.

Some candidates may present learned preparedness as a psychological explanation. This is creditworthy provided the focus is on the learning elements of this approach (i.e. the conditioning experience, Ohman).

AO2/AO3 = 8 marks

AO2/AO3 credit is awarded for an evaluation of the psychological explanation of phobias presented. Evaluation will depend on the explanation offered, but is likely to include supporting evidence.

Methodological evaluation of research is creditworthy, provided the implications for the explanation are made explicit.

Effectiveness of treatments based on the approach can also be a way of gaining credit as can comparison with alternative explanations of phobias.

Likely material includes:

- behavioural explanations – supporting evidence from case studies (Watson and Rayner 1920)
- social learning theory – e.g. Mineka et al (1984) study of rhesus monkeys
- cognitive factors explanations – some studies, e.g. Tomarken 1989, support the role of cognitive notably over-estimation of danger/distorted thinking in phobias. The effectiveness of CBT offers some support for the role of cognitive factors
- psychodynamic – there are studies demonstrating the psychodynamic explanation of phobias, such as Freud's case study of Little Hans.

AO1 Mark bands

Knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

AO2/AO3 Mark bands Evaluation

8 - 7 marks Effective

Evaluation demonstrates sound analysis, understanding and interpretation.

The answer is well focused and shows coherent elaboration and/or a clear line of argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

6 - 5 marks Reasonable

Evaluation demonstrates reasonable analysis and understanding.

The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident.

Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

4 - 3 marks Basic

Evaluation demonstrates basic, superficial understanding.

The answer is sometimes focused and shows some evidence of elaboration.

Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

2 - 1 marks Rudimentary

Evaluation is rudimentary, demonstrating a very limited understanding.

The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant.

Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Topic: Obsessive Compulsive Disorder

Question 07

AO1 = 4 marks

For AO1 credit, candidates need to identify issues related to the classification and/or diagnosis of OCD. The specification directs them towards reliability and validity of classification and diagnosis so these are likely to form part of the answer. Only 4 marks are available, so detailed description of issues is not expected.

Candidates who present lists of signs and symptoms of OCD or who describe classification systems are not addressing the issues surrounding diagnosis and classification.

AO2/AO3 = 8 marks

AO2/AO3 credit is awarded for a discussion of the issues identified. This is likely to focus on the importance of reliable and valid classification and diagnosis and the consequences of unreliable diagnosis in relation to OCD. Candidates may also present material on diagnostic agreement between clinicians (e.g. Beck). The implications for diagnosis of OCD should be made clear for reasonable marks.

It is unlikely that Rosenhan's study can be made relevant to the topic of OCD but such material should still be read carefully.

The table shows one way in which candidates may organise material as AO1 and AO2. However, there are other ways. For example, symptom overlap could be an issue or consequence depending on how it is presented. Examiners should read answers carefully to identify how material is presented as AO1 and AO2.

Likely issues (AO1)	Discussion (AO2)
The reliability of ICD and DSM classification systems	There is reasonably good agreement between DSM iv and ICD in symptomology for OCD.
Difficulty in establishing 'cut off' points between normal anxiety/checking and pathological checking	It can be difficult to distinguish a cut-off point between normal and abnormal behaviours such as checking the gas is off. There is a debate about whether or not anxiety should be medicalised and sufferers labelled.
The benefits of diagnosis in accessing support/treatment	Diagnosis can produce benefits in terms of rapid and effective treatment but can also have negative effects. Labelling may influence employment prospects and motivation.
The validity of diagnosis, e.g. the problem of co-morbidity with other disorders	OCD is difficult to distinguish from other anxiety disorders (for example, generalised anxiety and phobias) as there is considerable overlap in symptoms. There is overlap between OCD and simple phobias (obsessive thoughts about cutting may appear as a knife phobia – Rasmussen 1986) – these should be distinguishable by skilled clinicians. OCD is co-morbid with Tourettes syndrome, making it difficult to identify which should be treated. This is important, as establishing the primary disorder influences the treatment

	offered.
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AO1 Mark bands Knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

AO2/AO3 Mark bands Commentary

8 - 7 marks Effective Commentary and/or evaluation demonstrate sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
6 - 5 marks Reasonable Commentary and/or evaluation demonstrate reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
4 -3 marks Basic Commentary and/or evaluation demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
2 - 1 marks Rudimentary Commentary and/or evaluation are rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Question 08

AO1 = 4 marks

AO1 credit is awarded for an outline of one biological explanation for OCD. Given the requirement for 4 marks, this should contain a reasonable level of detail.

The main biological explanations for OCD are as follows:

- genetics – there is some evidence of a tendency to inherit OCD, with a gene (Sapap3) recently identified
- biochemistry – serotonin deficiency has been implicated
- Neuroanatomy – dysfunctions of the orbital frontal cortex (OFC) over-activity in basal ganglia and caudate-nucleus thalamus have been proposed
- Evolutionary – adaptive advantages of hoarding, grooming, etc.

Given the difficulty of describing genetic explanations in detail, AO1 credit can be awarded for straight descriptions of twin, family and adoptive studies which support the genetic explanation of OCD.

AO2/AO3 = 8 marks

AO2/AO3 credit is awarded for an evaluation of the biological explanation of OCD presented. Evaluation will depend on the explanation offered, but is likely to include supporting evidence.

Methodological evaluation of research is creditworthy provided the implications for the explanation are made explicit.

Effectiveness of treatments based on the approach can also be a way of gaining credit as can comparison with alternative explanations of OCD.

Likely material includes:

- genetics – relatives of sufferers are around 9 times more likely to be diagnosed (Arbor 2006), with a CR of between 65% and 80% MZ twins (Rasmussen 1986, Carey and Gottesman), sample sizes in twin studies, difficulty separating genetic and environmental influences
- biochemistry – SSRI's are effective for about 50% of sufferers
- neuroanatomy – some support for claims, eg Rauch et al 1994, PET scans show over activity in basal ganglia, co-morbidity with Tourette's which is also linked to basal ganglia (Rapoport 1990).

AO1 Mark bands

Knowledge and understanding

4 marks Sound

Knowledge and understanding are accurate and well detailed.
Organisation and structure of the answer are coherent.

3 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
Organisation and structure of the answer are reasonably coherent.

2 marks Basic

Knowledge and understanding are basic/relatively superficial.
Organisation and structure of the answer are basic.

1 mark Rudimentary

Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate.

Lacks organisation and structure.
0 marks No creditworthy material.

AO2/AO3 Mark bands Evaluation

8 - 7 marks Effective Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
6 - 5 marks Reasonable Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.
4 - 3 marks Basic Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
2 - 1 marks Rudimentary Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Section B Psychology in Action

Topic: Media Psychology

Question 09

There are different routes to obtaining credit here. AO1 credit can be awarded for descriptions of findings and conclusions regarding the positive effects of computers and/or video games and AO2/AO3 for evaluating these.

Alternatively, candidates could outline the positive effects of computers as AO1 and present research evidence for these effects as AO2/AO3. Examiners should read answers carefully to establish how the candidate is approaching the question.

AO1 = 4 marks

Candidates can take a broad approach and cover video games and computers in outline or focus one of these in more detail. Whichever approach is taken, the focus of description should be on findings/conclusions, given the phrasing of the question. Descriptions of procedural detail should not be awarded AO1 credit.

Some games (e.g. Tetris) have been found to improve specific cognitive skills, hand eye co-ordination and some aspects of vision (Green and Bavelier 2003).

Games with a pro-social theme can effect helping behaviour (Gentile 2009).

Active Wii fit style games may promote higher levels of physical activity in sedentary individuals (Graham et al 2011, Maddison et al., 2009).

Social networking sites can promote pro-social behaviours, political change.

AO2/AO3 = 6 marks

AO2/AO3 credit is awarded for commentary and evaluation on the positive effects of computers and video games. There are contradictory findings in this area and candidates could explore some of the reasons why studies have reached different conclusions (for example, the operationalisation of effects, length of follow-up). Candidates could choose to comment critically on the methods used in research studies covered as AO1 and/or discuss the difficulties in drawing firm conclusions from 'effects' research (for example, correlational studies, lack of causal relationships, relatively small effect sizes, need for longitudinal studies, sampling issues).

AO1 Mark bands

Knowledge and understanding

4 marks Sound	Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable	Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic	Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary	Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks	

No creditworthy material.

AO2/AO3 Mark bands

6 marks Effective

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line or argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

5 - 4 marks Reasonable

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.

3 - 2 marks Basic

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Question 10

AO1 = 4 marks

AO1 credit is awarded for a description of one explanation for the persuasiveness of TV advertising.

There is a wide choice of potentially relevant material including:

- the Hovland Yale model of persuasion
- the Elaboration Likelihood model.

Other principles underlying the effectiveness of TV advertising include the use of classical conditioning (positive associations), the mere exposure effect (repetition/familiarity) and theories of media influence (including uses and gratifications theory, cultivation theory). These can gain full credit.

Examiners should be mindful that this question focuses on TV advertising. Whichever approach is taken, material should be shaped effectively for 4 marks. General descriptions (for example of the principles of classical conditioning) should not be awarded credit.

Where more than one explanation is presented, credit should be awarded to the better/best of these.

AO1 Mark bands**Knowledge and understanding****4 marks Sound**

Knowledge and understanding are accurate and well detailed.
Organisation and structure of the answer are coherent.

3 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.
Organisation and structure of the answer are reasonably coherent.

2 marks Basic

Knowledge and understanding are basic/relatively superficial.
Organisation and structure of the answer are basic.

1 mark Rudimentary

Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate.
Lacks organisation and structure.

0 marks

No creditworthy material.

Question 11

As part of his research into intense fandom, a psychologist examined comments posted on a fan website for a famous 'boyband'. He found that most fans discussed concerts, favourite songs and band souvenirs. However, a small number were more intensely involved with the band. These fans spent their weekends following the band around the country when they were on tour in the hope of catching a glimpse of their favourite celebrities. They visited the fan website several times a day to discuss the latest 'Tweets' posted by the band members on Twitter.

AO2/AO3 = 10 marks

AO2/AO3 credit is awarded for application of knowledge about intense fandom to the scenario. The scenario identifies two levels of fandom: relatively mild engagement (discussing forthcoming events) and intense fandom (following of celebrities, attempts to see or contact). Candidates may link these to established measurements of the intensity of celebrity worship, notably Maltby's 2001 celebrity attitude scale which differentiates three levels of celebrity worship. This material can be awarded credit, but is not essential.

Candidates are required to discuss how psychological research might explain these two kinds of fandom. They can approach this by covering theoretical explanations of intense fandom/celebrity worship or studies. Given the focus of the scenario, material on celebrity stalking is acceptable.

Likely material includes:

- The absorption addiction model (McCutcheon 2002) argues that people pursue parasocial relationships with celebrities when their own lives are deficient in some way. Those with poorer psychological adjustment, or weaker senses of identity or those who have experienced personal crises are seen as more prone to engage in intense fandom.
- Attachment theory (Keinlen 1998, McCutcheon) argues that intense parasocial relationships originate in insecure childhood attachments. These are seen as attractive, as there are few demands and little risk of rejection.
- Jenkins (1992) takes a more positive view of fandom arguing that it serves important social functions. This model can explain the mild fandom, but does not attempt to explain extreme levels of fandom identified in the scenario.

The marks awarded will depend on how effectively knowledge is applied to the scenario. Candidates who select potentially relevant material, but do not apply it to the two kinds of fandom depicted in the scenario, should be awarded a basic mark.

AO2/AO3 Mark bands Application

9 - 10 marks Effective Explanation/application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6 - 8 marks Reasonable Explanation/application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3 - 5 marks Basic Explanation/application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1 - 2 marks Rudimentary Explanation/application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Topic: The Psychology of Addictive Behaviour

Question 12

AO2/AO3 = 10 marks

AO2/AO3 credit is awarded for an application of knowledge of addictive behaviour to the scenario. The scenario provides a number of 'clues' as to the source of Sam's addiction. These include vulnerability factors (e.g. age personality and peer influence) and approaches (e.g. learning theories). Material from both sub-sections of the specification can gain credit. The marks awarded will depend on how effectively knowledge is applied.

- Boredom of work and excitement of the betting shop atmosphere may be linked to personality factors such as sensation seeking.
- Peer influence – is important in many addictions notably smoking (Bricker et al) and drug use. Credit if linked to gambling.
- Observational learning from peers.
- Positive reinforcement from winning money.

Candidates who select relevant explanations, but do not apply these to the scenario, should be awarded a maximum of 4 marks.

AO2/AO3 Mark bands Application

9 - 10 marks Effective Explanation/application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6 - 8 marks Reasonable Explanation/application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3 - 5 marks Basic Explanation/application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1 - 2 marks Rudimentary Explanation/application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Question 13
AO1 = 4 marks

AO1 credit is awarded for an outline of the theory of planned behaviour (Ajzen 1985) as a model for addiction prevention TPB claims that:

- behaviour is a function of three factors, personal attitudes, subjective norms (other people's views) and perceived behavioural control
- perceived behavioural control (or self-efficacy) – strength of your belief or conviction that you can carry out the behaviour
- SE reflects past experience (e.g. of trying to quit smoking) as well as obstacles
- developing behavioural control is an important aspect of preventing addiction (e.g. education programmers aimed at children).

TPB is derived from the Theory of Reasoned Action and basic credit can be awarded for reference to the link between TRA and TPB. Diagrams of TPB can also receive credit. Maximum 3 marks if material is not shaped to addiction prevention.

AO1 Mark bands Knowledge and understanding

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks No creditworthy material.

Question 14

There are different ways of approaching this question so examiners should read answers carefully to establish what the candidate is presenting as AO1 and AO2.

AO1 = 4 marks

A likely approach is that candidates will describe one or more public health interventions aimed at reducing or preventing addiction as AO1. Public health interventions are interventions by governments and voluntary organisations designed to prevent or treat addictions. These are not targeted at individuals but at the population and include legislation (e.g. for example the workplace smoking ban/price increases) and health education (e.g. advertising, leaflets, quitline).

Alternatively, candidates may describe the effectiveness of interventions as AO1 and comment on these as AO2. This approach is creditworthy.

Psychological/biological interventions are aimed at individuals, and cannot receive AO1 credit. These include doctors' advice to individuals.

AO2/AO3 = 6 marks

AO2/AO3 credit is awarded for a discussion of the effectiveness of public health interventions. Candidates are likely to refer to research studies which have calculated effectiveness, for example, Parkes 2008. They may also discuss methodological difficulties with evidence and problems of establishing cause and effect, when a raft of public health measures come on stream at the same time. Comparison with psychological/biological interventions can receive credit.

Answers which do not refer to relevant research are unlikely to achieve a mark above basic.

AO1 Mark bands Knowledge and understanding

4 marks Sound
Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable
Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic
Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary
Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks
No creditworthy material.

AO2/AO3 Mark bands

6 marks Effective

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument.

Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

5 - 4 marks Reasonable

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology.

Minor errors of grammar, punctuation and spelling occasionally compromise meaning.

3 - 2 marks Basic

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

0 marks

No creditworthy material is presented.

Topic: Anomalistic Psychology

Question 15

AO1 = 4 marks

AO1 credit is awarded for an outline of methodological issues involved in the study of psychokinesis. Psychokinesis refers to the (disputed) ability to move objects by the mind. PK was initially accessed via eye only (macro PK) then by the ability to influence the fall of dice. Latterly, it has been superseded by micro PK in which technology is used. Candidates can refer to problems associated with any of these methods of studying PK.

Relevant methodological issues include:

- bias/sleight of hand in dice rolling studies
- experimenter bias in recording macro PK results
- lack of validity of micro PK studies
- problems of replication in all of the above.

Award 1 mark for identifying a methodological issue that would be relevant to PK and a further mark for explanation/ elaboration.

Example: Experimenters could be biased in recording results (1 mark) as they could overestimate the distance an object has moved (2 marks).

Question 16

Most people have several dreams each night and a small number of these dreams come true a week or so later. Former American president, Abraham Lincoln is believed to have dreamed of his assassination, two weeks before it happened. Some people interpret dreams coming true as evidence for the paranormal. However, others assume that probability or coincidence can explain this anomalous experience.

AO2/AO3 = 10 marks

For AO2/AO3 credit, candidates are required to explain why some people interpret dreams coming true as evidence for the paranormal, whereas others interpret this as a coincidence or arising from statistical probability. This requires application of knowledge about coincidence/probability to the example given in the scenario. This example used (dreams coming true) is sometimes known as pre-cognition or clairvoyance, and candidates could legitimately use these terms.

Paranormal believers, by and large, interpret events like dreams coming true as evidence for clairvoyance. They tend to see patterns between random associations, rather than using explanations based on probability or coincidence. Candidates could legitimately consider what is known about paranormal believers (i.e. why some people appear to be prone to paranormal explanations) referring to relevant personality factors such as fantasy processes, sensation seeking and extraversion.

Non-believers in the paranormal recognise that events occur coincidentally and explain them in relation to probability. A probability judgment refers to a judgment of how likely an event is to happen. As most people have several dreams each night and many of these are vague or poorly remembered, it is quite probable that some of these will relate to daily events (Wiseman 2011). Candidates could refer to relevant studies of probability mis-judgments for example, Esgate and Groome (2001) found that disasters are often reported on the news and disaster dreams are common, making the two likely to co-occur but this is not necessary. They could also use other examples to demonstrate probability and coincidence such as three lottery winners coming from the same small town. This is acceptable.

The law of truly large numbers (Diaconis and Mosteller 1989) argues that unusual events are likely to happen when there are lots of opportunities for that event (i.e. lots of dreams). Coincidence refers to the co-occurrence of two events entirely by chance, in this case the dream and the event.

The marks awarded will depend on how effectively knowledge is applied to the scenario example of dreams coming true. To access top band marks candidates must explicitly address both sides of the scenario, i.e. why people do/do not accept paranormal explanations for dreams coming true. Candidates who select potentially relevant material, but do not apply it to dreams which later come true, should be awarded up to 4 marks.

AO2/AO3 Mark bands Application

9 - 10 marks Effective Explanation/application demonstrate sound analysis and understanding. Application of knowledge is well focused and effective. Ideas are well structured and expressed clearly and fluently.
6 - 8 marks Reasonable Explanation /application demonstrate reasonable analysis and understanding. Application of knowledge is generally focused. Most ideas are appropriately structured and expressed clearly.
3 - 5 marks Basic Explanation/application demonstrate basic analysis and superficial understanding. Application is sometimes focused. Expression of ideas lacks clarity.
1 - 2 marks Rudimentary Explanation/application are rudimentary demonstrating very limited understanding. The answer is weak, muddled and may be mainly largely irrelevant. Deficiency in expression of ideas results in confusion and ambiguity.
0 marks No creditworthy material is presented.

Question 17

AO1 = 4 marks

AO1 credit is awarded for findings and conclusions of research into psychic healing. Candidates are likely to focus on studies which have looked for the existence of healing and/or the factors associated with belief in psychic healing.

Some studies have demonstrated significant benefits from psychic healing, whereas others have shown a lack of benefit:

- Krieger (2000) found higher haemoglobin levels in a group who had received psychic healing than a control group.
- Bener's (2000) meta-analysis identified positive effects in 197 studies of psychic healers.
- Keller et al (1986) double blind trial found significant benefits to tension headaches.

Credit can also be gained from description of possible mechanisms underlying possible effects, e.g. Tang (1998) suggests that psychic healing increases relaxation and activates self-healing.

AO2/AO3 = 6 marks

AO2/AO3 credit is awarded for commentary and evaluation on what research has shown about psychic healing.

AO2/AO3 content depends on the material presented as AO1 but likely content includes:

- contradictory findings of studies on healing
- lack of controlled, double blind trials
- use of small volunteer samples
- ethical issues (e.g. vulnerability, exploitation of those seeking healing).

AO1 Mark bands

4 marks Sound Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent.
3 marks Reasonable Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent.
2 marks Basic Knowledge and understanding are basic/relatively superficial. Organisation and structure of the answer are basic.
1 mark Rudimentary Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate. Lacks organisation and structure.
0 marks no creditworthy material.

AO2/AO3 Mark bands

6 marks Effective Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line or argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.
5 - 4 marks Reasonable Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration. Most ideas are appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling occasionally compromise meaning.
3 - 2 marks Basic Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.
1 mark Rudimentary Commentary is rudimentary demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.
0 marks No creditworthy material is presented.

Section C Psychological Research and Scientific Method

Question 18

AO1 = 2 marks

Content analysis is a technique for analysing qualitative data of various kinds. Data can be placed into categories and counted (quantitative) or can be analysed in themes (qualitative).

Award 1 mark for a brief statement and a further mark for elaboration.

Question 19

AO3 = 4 marks

- The psychologist could have begun by watching some of the film clips of driver behaviour.
- This would enable the psychologist to identify potential categories which emerged from the data of the different types of distractions seen in the film.
- Such categories/themes might include: passenger distractions, gadget distractions, etc.
- The psychologists would then have watched the films again and counted the number of examples which fell into each category to provide quantitative data.

Credit variations in so far as they explain the process.

Note: maximum 1 mark if no engagement with the stem.

AO3 Mark bands

4 marks Effective

Effective explanation of the processes involved in content analysis referring to some or all of the above points.

2 - 3 marks Reasonable

Reasonable accurate coverage of the processes involved.

1 mark Basic

Basic identification of the processes involved in content analysis ('watching the films and counting').

0 marks

No creditworthy material.

Question 20

AO3 = 3 marks

1 mark for identification of an appropriate way of assessing reliability in this investigation. By far the most likely answers here are inter-rater reliability or test-retest reliability.

2 marks for some explanation/elaboration: 'the two psychologists could carry out content analysis of the films separately and compare their answers' or 'they could re-code the films at a later date and compare the two sets of data'.

3 marks for an accurate and clear explanation which refers to deriving the categories and checking the data. 'The two psychologists could watch the films separately and devise a set of categories. They could compare these and use categories they both agreed on. They could carry out content analysis of the films separately and compare their answers looking for agreement'.

Question 21

AO3 = 3 marks

Candidates can cover one reason explained in detail here or several reasons in less detail.

A repeated measures design was chosen in this experiment:

- to remove the effects of individual differences in reaction times which would occur if an independent groups design was used
- to avoid the potential difficulties involved in matching participants
- to reduce the number of participants required for the experiment.

Question 22

AO3 = 3 marks

This is a repeated measures design and is counter-balanced hence points about order effects and individual differences will not gain credit.

There are a range of potential extraneous variables here including:

- the nature and content of the conversation with the psychologist on the hands-free phone
- interaction between the sex of the psychologist and sex of participant which could influence the type of conversation
- the number of hazards in the computer-based test, hence difficulty of the tests
- the presence of the hands-free headset could have produced distraction..

Award 1 mark for basic identification of a confounding variable and a further 2 marks for elaboration of how this could have affected the dependent variable.

Example: The chat with the psychologist was not controlled (1 mark) so the difficulty or number of questions could have varied (2 marks). This would influence the DV as more or less attention would be required (3 marks).

Question 23

AO3 = 3 marks

External validity refers to how far the findings of the experiment can be generalised to real-life situations. The most likely answer here is that the hazard perception test was done using a computer test which does not resemble real-life driving situations. (No noise, stress, etc.)

Award 1 mark for a brief answer (test lacks ecological validity) and 2 further marks for appropriate explanation contextualised within the scenario.

Question 24

AO3 = 4 marks

There are several potential ethical issues here. Candidates can focus on one in detail or several in less detail.

- Protection of participants from harm whilst studying the effects of a hands-free phone on driving. Two key issues here are the use of a computer-based test with no risk attached and of an experienced sample of police drivers.
- Informed consent: Participants should be given full information about the nature of both tasks before deciding whether or not to participate.
- Debriefing: A full debriefing should take place at the end of the experiment. This should provide feedback on performance and allow participants to ask questions if they wish to.
- Freedom to withdraw: Participants should be made aware of their freedom to withdraw before and during the experiment. They should be made aware of their right to withdraw their data after the experiment.
- Confidentiality: Individuals should not be identified, but should retain anonymity (use of numbers or initials instead of names).

Lists of ethical issues with no elaboration 1 mark.

AO3 Mark bands

4 marks Sound
An appropriate ethical issue is identified and explained in detail. Material is accurate – or several issues are identified and discussed accurately in less detail.
2 - 3 marks Reasonable
One or more appropriate ethical issues are identified and discussed. The answer is generally accurate.
1 mark Basic
Basic identification of an ethical issue (e.g. 'right to withdraw') or very brief answers which lack detail.
0 marks
No creditworthy material.

Question 25

AO3 = 5 marks

The standardised instructions should include the following information:

- You will take part in a simulated driving test which will last for three minutes.*
- Your task will be to identify potential hazards on the road ahead.*
- When you see a hazard, you should press the mouse button as quickly as possible.*
- Whilst you are doing the test, I will chat to you on a mobile phone and I would like you to reply using the hands-free mobile phone headset.*
- Do you have any questions?*

For full marks, the instructions should adopt an appropriate formal tone. Instructions which are not suitable to be read out should be awarded a maximum mark of 2.

AO3 Marks bands	Standardised instructions
5 marks Effective	The standardised instructions provide accurate detail of the procedure in a clear and concise form and participants' understanding is checked.
4 - 3 marks Reasonable	The standardised instructions provide sufficient detail of the procedure in a reasonably clear form.
2 marks Basic	The standardised instructions provide some details of the procedure though these may not be clear.
1 mark Rudimentary	The standardised instructions provide few details of the procedure and may be muddled and or inaccurate. Omissions in the instructions compromise the procedure.
0 marks	No creditworthy material is presented.

Question 26

AO3 = 3 marks

Students are required to identify an appropriate test and are asked to justify their choice.

Award 1 mark for identification of the Wilcoxon (signed ranks) test. Candidates could receive credit for Sign test or related t test. Note that reasons/justification must be correct for the test supplied.

If an incorrect test is identified **no marks** can be awarded.

Award 1 mark for basic statement of a reason, and a further mark for elaboration, within the context of the experiment or a further reason.

e.g. for Wilcoxon test:

- A repeated measures design was used (1 mark) as drivers take part in both the hands-free phone and non-phone (silent) conditions (1 mark).
- A repeated measures design was used (1 mark) and the data can be treated as ordinal (1 mark).

Test of difference cannot gain credit.

Question 27

AO3 = 2 marks

Students are told that the difference in reaction times was significant at the $p \leq 0.01$ level.

Award 1 mark for a basic understanding of this ('the result is highly significant') and a further mark for elaboration e.g. identifying that the probability of a Type 1 error here is less than 1/100.

Question 28

AO3 = 3 marks

Replication is an important tool in the scientific method. It allows scientists to check findings and ensure that they are robust. In this study, replication is important, as the original sample is small (30 people) and specific (experienced police drivers). For this reason, replication on a larger sample will be used to check if findings apply outside this specific group.

Award 1 mark for a general answer on the importance of replication to check findings.

Assessment Objectives

Question	AO1	AO2/AO3	Total
Section A			
1	8	16	24
2	4		4
3	4		4
4		16	16
5	4	8	12
6	4	8	12
7	4	8	12
8	4	8	12
Section B			
9	4	6	10
10	4		4
11		10	10
12		10	10
13	4		4
14	4	6	10
15	4		4
16		10	10
17	4	6	10
Section C			
18	2		2
19		4	4
20		3	3
21		3	3
22		3	3
23		3	3
24		4	4
25		5	5
26		3	3
27		2	2
28		3	3

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