



General Certificate of Education

Psychology 2181

Specification A

**Unit 4 (PSYA4) Psychopathology,
Psychology in Action
and Research Methods**

Mark Scheme

2011 examination - June series

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 meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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PSYA4: Psychopathology, Psychology in Action and Research Methods

SECTION A PSYCHOPATHOLOGY

Question 01

AO1 = 9 marks

As indicated in the quotation, there are various biological explanations of schizophrenia. Candidates can access full marks by covering two in depth or more than two in slightly less detail. Partial performance criteria apply where candidates offer only one biological explanation.

It is difficult for candidates to offer detailed descriptions of the genetic explanation so, in this case, description of studies which have provided evidence for heritability can be regarded as elaboration of the explanation and, therefore, awarded AO1 credit. However, descriptions of numerous studies which make the same point do not meet the criteria for the high mark bands. The most likely biochemical explanation focuses on the dopamine hypothesis. Neuroanatomical explanations tend to focus on damaged brain structures (abnormalities in the frontal and pre-frontal cortex, enlarged ventricles etc). Other acceptable explanations include viral influences, birth complications, season of birth, maternal stress in pregnancy and links to substance abuse.

Candidates may present neuropsychological models (Frith), this is acceptable provided that the focus is on biological elements of the model.

Evolutionary explanations are acceptable.

AO1 mark bands

<p>9-8 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/depth. Organisation and structure of the answer are coherent.</p>
<p>7-5 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.</p> <p><i>Partial performance is sound, accurate and well detailed</i> <i>N.B. (max. 6 marks)</i></p>
<p>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>Partial performance is reasonable and generally accurate</i></p>
<p>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. Lacks organisation and structure.</p> <p><i>Partial performance is basic</i></p>
<p>0 marks No creditworthy material.</p>

AO2/AO3 = 16 marks

Candidates are required to provide an evaluation of biological explanations of schizophrenia. The question refers to explanations in the plural. However, given that evaluative points are often relevant to more than one explanation, no partial performance criteria apply for AO2/AO3. Candidates can legitimately refer to psychological explanations but answers will only gain credit where the material is clearly used to offer commentary on the worth of biological explanations. Similarly, any discussion of therapies is only creditworthy if it is directly relevant to an assessment of the underlying explanation.

Evaluation will depend on the particular explanation eg in the case of genetics, candidates could discuss the quality of supporting evidence and the problems of drawing appropriate conclusions. For example, the data from some adoption studies have been re-analysed (eg Wahlberg et al, 2000 re-analysed data from Tienari et al, 2000) to show rather less support for genetic factors than the original researchers claimed. There is also a problem in longitudinal adoption studies that diagnostic criteria for schizophrenia have changed significantly over time. Candidates might also consider the current situation in the search for the location of specific genes. Until these have been reliably identified, it is difficult to understand the precise mechanism of genetic transmission.

Evaluation that consists solely of brief statements eg 'twins share the same environment' 'there is no 100% concordance' with no elaboration or clear relevance to schizophrenia only meets the criteria for basic. This is one explanation which really can be described as reductionist. However, candidates need to elaborate beyond 'this is reductionist' to show effective AO2/AO3 skills.

Evaluation of other biological explanations might also focus on the quality of supporting evidence (eg contradictory results from different studies, issues of cause and effect, animal studies).

One general point that can be applied to most biological explanations concerns the diversity of symptoms found in people either diagnosed with schizophrenia or a sub-type of schizophrenia – it may be the case, for example, that some explanations can account for certain symptoms better than others.

Candidates might also use the diathesis-stress model as a way of reconciling biological and psychological explanations.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands – Best Fit

<p>16-13 marks Effective Commentary/evaluation demonstrates sound analysis and understanding. 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.</p>
<p>12-9 marks Reasonable Commentary/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.</p>
<p>8-5 marks Basic Commentary/evaluation demonstrate basic analysis and 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.</p>
<p>4-1 marks Rudimentary Commentary/evaluation is rudimentary, demonstrating very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and maybe 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.</p>
<p>0 marks No creditworthy material is presented.</p>

Question 02

AO1 = 9 marks

Candidates are required to provide a description of at least two biological therapies suitable for depression. The most likely therapies to be outlined are drug therapy and ECT. It is possible for candidates to meet the plurality requirement by outlining the use of different types of drug in the treatment of depression provided they make clear the different modes of action. The main drugs used in the treatment of depression are mono-amine oxidase inhibitors (MAOIs), tricyclic antidepressants and selective serotonin reuptake inhibitors (SSRIs).

Examiners need to be sensitive to a breadth/depth trade off in this question. Candidates can cover several biological explanations in less detail or two in more detail.

Answers which provide general descriptions of drug therapy without making them specifically relevant to depression cannot access bands higher than basic.

Candidates who describe only one biological therapy are showing partial performance. Descriptions of psychological therapies such as CBT or RET are not creditworthy.

AO1 mark bands

<p>9-8 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/depth. Organisation and structure of the answer are coherent.</p>
<p>7-5 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 is sound, accurate and well detailed</i> <i>N.B. (max. 6 marks)</i></p>
<p>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>Partial performance is reasonable and generally accurate</i></p>
<p>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. Lacks organisation and structure. <i>Partial performance is basic</i></p>
<p>0 marks No creditworthy material.</p>

AO2/AO3 = 16 marks

Commentary/evaluation will depend on the therapies, but are likely to be offered in terms of appropriateness and effectiveness.

Issues of appropriateness could include:

- compliance
- factors affecting the choice of treatment e.g. financial constraints, accuracy of original diagnosis
- ethical issues eg possible harmful side-effects, issues of informed consent, dehumanising effects of some treatments.

Issues of effectiveness could include:

- problems of measuring effectiveness, eg when to measure, how to measure, what criteria to use
- wide range of symptoms – treatments might be effective for some but not others
- placebo effects
- quality of supporting research evidence

The question refers to therapies in the plural. However, given that evaluative points are often relevant to more than one explanation, no partial performance criteria apply for AO2/AO3.

Reference to psychological therapies is only creditworthy where it is used to provide sustained commentary on biological therapies.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands – Best fit

<p>16-13 marks Effective Commentary/evaluation demonstrates sound analysis and understanding. 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.</p>
<p>12-9 marks Reasonable Commentary/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.</p>
<p>8-5 marks Basic Commentary/evaluation demonstrate basic analysis and 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.</p>
<p>4-1 marks Rudimentary Commentary/evaluation is rudimentary, demonstrating very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and maybe 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.</p>
<p>0 marks No creditworthy material is presented.</p>

Question 03**AO1 = 4 marks**

Candidates are required to outline one or more biological explanations for one of these anxiety disorders. There is a breadth/depth trade-off here.

Biological explanations include:

- genetic explanations
- biochemical explanations
- neuroanatomical explanations

It is difficult for candidates to offer detailed descriptions of the genetic explanation so, in this case, description of studies which have provided evidence for heritability can be regarded as elaboration of the explanation and, therefore, awarded AO1 credit.

The preparedness model can also be accepted as a biological explanation for phobic disorder provided the evolutionary aspects of the explanation are emphasised.

Descriptions of psychological explanations are not acceptable.

Examiners should bear in mind that there are only 4 marks available for AO1 material in this part of the question.

AO1 mark bands

4 marks	Outline is reasonably thorough, accurate and coherent.
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent.
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material.

AO2/AO3 = 8 marks

Evaluation will depend on the disorder and the explanations chosen but candidates are likely to evaluate the explanations in terms of their effectiveness and the extent to which they are supported by evidence. Candidates can achieve this through an analysis and interpretation of findings; a consideration of reliability/validity issues; sampling issues; applications and implications of research. Methodological evaluation of relevant research evidence is creditworthy but needs to be used effectively to access top mark bands. Brief statements such as 'this study lacks ecological validity', 'this explanation is reductionist' etc do not show more than superficial understanding.

Psychological explanations can be introduced but only if they are used as sustained commentary or used in direct comparison.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands

<p>8-7 marks Effective Evaluation demonstrates sound analysis and understanding. 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.</p>
<p>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.</p>
<p>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.</p>
<p>2-1 marks Rudimentary Evaluation is rudimentary demonstrating 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.</p>
<p>0 marks No creditworthy material is presented</p>

Question 04

AO1 = 5 marks

Candidates are required to outline one or more psychological explanations for their chosen anxiety disorder. There is a breadth/depth trade-off here.

For phobic disorders, candidates are likely to describe psychodynamic, behavioural, social learning or cognitive-behavioural explanations. Answers outlining preparedness theory are acceptable provided that the leaning elements of the theory are emphasised.

For OCD, candidates are likely to describe psychodynamic, behavioural, or cognitive-behavioural explanations.

Examiners should bear in mind that there are only 5 marks available for AO1 material in this part of the question.

AO1 mark bands

5 – 4 marks	Outline is reasonably thorough, accurate and coherent
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material

AO2/AO3 = 8 marks

Candidates are required to evaluate one or more psychological explanations for their chosen disorder. References to biological explanations are only creditworthy insofar as they are used explicitly as a critique of psychological explanations.

Commentary/evaluation will depend on the disorder and the explanations chosen but candidates are likely to evaluate the explanations in terms of their effectiveness and the extent to which they are supported by evidence. Candidates can achieve this through an analysis and interpretation of findings; a consideration of reliability/validity issues; sampling issues; applications and implications of research. Methodological evaluation of relevant research evidence is creditworthy but needs to be used effectively to access top mark bands. Brief statements such as 'this study lacks ecological validity', 'this explanation is reductionist' etc do not show more than superficial understanding.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands – Best Fit

8-7 marks Effective Commentary/evaluation demonstrates sound analysis and understanding. 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/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 Commentary/evaluation demonstrates basic analysis and 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/evaluation is rudimentary demonstrating 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 05

AO2/AO3 = 10 marks

Examiners should be aware that research in this area has produced some contradictory findings.

Candidates are required to apply their knowledge of research findings to provide advice on what to include in the leaflet and justification for the advice. While some candidates might refer to both the risks and benefits, this is not necessary for full marks.

Likely suggestions include:

Benefits

Computer gaming can improve certain cognitive skills eg Visuo-spatial and attentional skills (eg Sims and Mayer, 2002)

Games with a pro-social theme can promote helping behaviour in children who play them (eg Gentile et al, 2009)

Some active games allow children to use up more energy compared to sitting watching TV (eg Mellecker et al, 2008)

Internet communication can nurture existing friendships and help children who are self-conscious and shy to communicate (eg Valkenburg and Peter, 2009)

Internet relationships can provide a buffer against stressors in adolescence.

Risks

There is some evidence (although it is not clear-cut) that playing violent games fosters aggression in the players (eg Anderson et al, 2007) Excessive gaming has been linked to aggressive behaviour (Gruesser et al, 2007). One suggestion is that children who have an existing aggressive predisposition are more likely to be adversely influenced (eg Gentile et al, 2004, Peng et al, 2008). Parents should then be particularly careful in allowing such children to play violent games

It is also thought that for children who play such games frequently, their judgement about what is real and what is fantasy becomes blurred.

There are growing concerns about obesity levels in young people. One contributory factor is that they spend much of their time sitting down engaged in screen-based activity. While active video games use up more energy than watching TV, energy expenditure nowhere near matches that of actual physical activity eg walking, playing football etc (eg Graves et al, 2009, Sproston and Primatesta, 2003)

Children can have poorer relationships with family and friends if they spend too much time on their computers (eg Padilla-Walker, 2009, Nie and Ebring, 2000)

Children can become 'addicted' to the internet or to game-playing (eg Young, 1998)

Although internet communication can help to nurture existing friendships, it can lead to unhealthy relationships – social networking websites need to be carefully monitored by parents. (eg Byron, 2008)

Maximum of 5 marks if candidates provide appropriate suggestions for the leaflet without any justification.

Maximum of 4 marks if candidates simply describe research and do not offer any suggestions for the leaflet.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands – Best Fit

<p>10-9 marks Effective Application demonstrates sound analysis and understanding. Application of knowledge is effective 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.</p>
<p>8-6 marks Reasonable Application demonstrates reasonable analysis and understanding. Application of knowledge is reasonably effective and shows some elaboration. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.</p>
<p>5-3 marks Basic Application demonstrates basic, superficial understanding. Application of knowledge is basic. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.</p>
<p>2-1 mark Rudimentary Application is rudimentary, demonstrating very limited understanding. Application of knowledge is weak, muddled 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.</p>
<p>0 marks No creditworthy material is presented.</p>

Question 06

AO1 = 5 marks

Candidates are required to provide an outline of the Hovland-Yale model of persuasion.

This model was developed in the 1950s by Carl Hovland and colleagues at Yale University. They were initially interested in seeing how propaganda could be used to support the American war effort but then turned their attention to a slightly broader study of persuasion. They believed that the key to predicting whether a piece of communication would succeed in persuading its audience was to study the characteristics of:

- the person(s) presenting the message ie the source (experts generally more persuasive than non-experts, celebrities/ attractive people more persuasive than unattractive)
- the contents of the message (whether the argument is one-or two-sided, repeated exposure, fear)
- the receiver of the message ie the audience (self esteem, age, intelligence)

Reference to the 4 stages of the model (attention, comprehension, reactance, acceptance) is creditworthy.

Examiners need to be sensitive to a breadth/depth trade off. Candidates who focus on characteristics or stages can gain full credit.

AO1 mark bands

5 – 4 marks	Outline is reasonably thorough, accurate and coherent
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material

Question 07

AO1 = 4 marks

Candidates are required to outline research findings into intense fandom. The specification uses examples of celebrity worship and stalking so it is acceptable for candidates to base their answer on research into these areas. The emphasis is on findings so detailed procedural descriptions are not creditworthy. There is a breadth-depth trade-off here – candidates can offer one or two findings in detail or more findings in less detail.

There is quite a wide range of research on this topic and the main textbooks all offer slightly different accounts. Maltby and McCutcheon are key researchers in this area and it is likely that candidates will refer to some of their work. Candidates could refer to the three types of celebrity worship identified in the Celebrity Attitude Scale (CAS): entertainment-social, intense-personal and borderline pathological. Researchers have since used the CAS to test other hypotheses, for example, the possible link between celebrity worship and poor mental health (Maltby et al, 2001), the link between celebrity worship and poor body image (Maltby et al, 2005), or the link between insecure attachments and celebrity-following (McCutcheon et al, 2006). Any relevant findings are creditworthy.

Examiners should be mindful that there are only 4 marks available here so candidates cannot cover a wide range of findings

AO1 – mark bands

4 marks	Outline is reasonably thorough, accurate and coherent.
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent.
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material.

AO2/AO3 = 6 marks

Candidates are required to evaluate research findings in this area. Evaluation will depend on the particular findings selected for AO1 credit. For example, candidates could consider the reliability/ validity of scales such as the CAS, or other methodological problems involved in measuring stalking eg agreeing on a definition. Candidates could consider the strengths and weaknesses of some of the theories/explanations which underpin some of the findings e.g. the prestige hypothesis, absorption-addiction model, attachment theory of stalking, rational goal pursuit theory of stalking etc.

Possible issues/debates/approaches could include gender, cultural issues and ethical issues.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 marks bands – Best Fit

6 marks Effective
Evaluation demonstrates sound analysis and understanding. The answer is well focused and shows coherent elaboration and/or 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
Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or clear 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.
3-2 marks Basic
Analysis and evaluation demonstrate basic analysis and 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
Evaluation is rudimentary, demonstrating very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and maybe 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 = 5 marks

Candidates are required to outline the learning model of addiction. They are not asked to do this in the context of either gambling or smoking but it is perfectly acceptable for candidates to take this approach. Similarly, they are not required to consider all aspects of addictive behaviour ie initiation, maintenance and relapse so answers which consider all, two or one of these are equally acceptable. There is, of course, a depth-breadth trade-off.

The learning model incorporates classical and operant conditioning as well as social learning. Candidates might also legitimately describe cue-reactivity theory.

Candidates who outline learning mechanisms (eg classical conditioning) without application to addiction can achieve a maximum of 1 mark.

Evaluation is not required here and is not creditworthy.

AO1 mark bands

5 – 4 marks	Outline is reasonably thorough, accurate and coherent
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material

Question 09**AO1= 4 marks**

Candidates are required to explain how self-esteem can influence vulnerability to addiction. Research has shown that people with low self-esteem might be particularly susceptible to peer pressure. They think that they might feel better about themselves if they belong to a particular social group. If smoking, gambling, drug-taking etc is central to this group, then the individual with low self-esteem will take up this behaviour in order to 'belong'. Particular forms of addiction eg gambling might appeal to people with low self-esteem because winning money could be perceived as a way of buying things to enhance their self-image. Low self-esteem can also be a factor in maintaining the addiction – for example, a gambler who has lost money, friends, and possibly job feels even less self-worth and does not have the strength of will to believe in his/her ability to overcome the addiction. The relationship between high self esteem and reduced vulnerability is also creditworthy.

Candidates who describe research relating to self esteem and addiction can receive up to 2 marks.

AO1 – Mark Bands

4 marks	Explanation is reasonably thorough, accurate and coherent.
3 – 2 marks	Explanation is limited, generally accurate and reasonably coherent.
1 mark	Explanation is weak and muddled or very limited
0 marks	No creditworthy material.

Question 10**AO2/AO3 = 2 marks**

Candidates are asked to write a statement. Questions, eg 'does smoking make you feel cool?', should not receive credit.

Statements must relate to self-esteem in some way eg 'smoking makes me feel cool', 'smoking gives me authority'.

Statements such as 'smoking reduces stress' do not relate to self-esteem and are not creditworthy.

One mark for an appropriate statement and one further mark for identifying it as quantitative data.

If the statement would clearly generate qualitative data (eg explain your answer) candidates can gain credit for identifying this as qualitative data.

Question 11**AO2/AO3 = 4 marks**

2 marks for **one** strength and 2 marks for **one** limitation

Possible strengths include: quick way of gathering data from lots of people; easy to score Likert-scale type items; people might be more prepared to self-disclose on a sensitive topic such as this in an anonymous questionnaire rather than in a face-to-face interview

Possible limitations include: people might be less honest in a questionnaire of this type rather than in a face-to-face interview with an interviewer ; being able to look at all the questions might lead to demand characteristics; Likert-scale type items do not allow people to explain or qualify

their answers in any way; people often tick the middle value on Likert-scale questionnaires or fall into a response set if the questionnaire has not been carefully constructed.

Any strength or limitation that could be relevant in this study is creditworthy.

One mark for brief statement eg 'Questionnaires are quicker than interviews'. One further mark for elaboration eg 'Because the questionnaire can be filled in by the participant without the researcher being there, it saves time.'

Question 12

AO2/AO3 = 10 marks

To achieve the top mark band, candidates **must** refer to the material in the study **and** to findings of other research. Although the question refers to types of intervention there is no partial performance penalty.

Candidates are required to discuss the effectiveness of interventions. Straight descriptions of different types of intervention are not creditworthy.

The stem is mainly concerned with government interventions in the form of mandatory warnings on cigarette packets. Candidates could discuss the effectiveness of interventions which focus on arousing fear and consider whether campaigns such as this work for everyone – the research in the stem, for example, suggests that it can depend on people's reasons for smoking in the first place. Other research has shown that people are more likely to quit smoking in a group than on their own which suggests that school/workplace interventions might be more successful than messages targeted at individuals.

Candidates can access marks by considering the effectiveness of specific types of interventions. The most likely interventions are those mentioned on the specification ie biological, psychological, public health and legislation. They can also access marks by considering wider issues such as some of the problems involved in trying to measure effectiveness

The stem refers to smoking, but it is perfectly acceptable to consider interventions designed to help people with other addictions.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 mark bands – Best Fit

10-9 marks Effective

Discussion demonstrates sound analysis and understanding.

The answer is well focused and shows coherent elaboration and/or 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.

8-6 marks Reasonable

Discussion demonstrates reasonable analysis and understanding.

The answer is generally focused and shows reasonable elaboration and/or clear 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.

5-3 marks Basic

Discussion 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 mark Rudimentary

Discussion is rudimentary, demonstrating very limited understanding.

The answer is weak, muddled and incomplete. Material is not used effectively and maybe 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 13**AO1 = 5 marks**

Scientific fraud occurs where researchers deliberately manipulate data in order to support their hypothesis or theory. It can happen in any area of science but it is thought by critics to be particularly prevalent in the field of parapsychology. General answers on scientific fraud are not creditworthy and candidates must root their answers in the study of anomalous experience.

Candidates can consider issues generally or in the context of a particular piece of fraudulent research eg Soals' research into ESP in the 1930s and 40s, Levy's research into pre-cognition in rats in the 1970s.

There are several issues involved, for example:

- ethical issues focus on the dishonesty of researchers who are deceiving not just their participants but also their colleagues and the wider public
- credibility issues focus on the damage done to the reputation of academic psychology by this kind of fraudulent research.
- Candidates could also legitimately consider the reasons why some researchers might risk cheating eg they might be so convinced by their own theory and frustrated that they have not been able to demonstrate it empirically that they feel justified in 'tweaking' the data; they are under pressure to get their work published in scientific journals in order to get more funding/ prestige/ career advancement.

There are only 5 marks available here so candidates cannot be expected to cover all these issues. However the question calls for an explanation so a list which simply identifies a number of issues is not sufficient for full marks.

Candidates who describe examples of scientific fraud without identifying issues can receive up to 2 marks.

AO1 mark bands

5 – 4 marks	Explanation is reasonably thorough, accurate and coherent
3 – 2 marks	Explanation is limited, generally accurate and reasonably coherent
1 mark	Explanation is weak and muddled or very limited
0 marks	No creditworthy material

Question 14**AO2/AO3 = 5 marks**

Leon's behaviour indicates that he is superstitious. Superstitions provide an illusory sense of control. When Leon first wore his green shirt, the subsequent unexpected success in his mock exam was just co-incidence but he believed that the two things (ie green shirt and exam success) were causally related – cognitive psychologists see this type of illusory correlation as a form of confirmation bias. Superstitions are more common in situations where there is a lack of control. Students taking exams can have control in the sense that they have worked hard during the term and have revised in a systematic and effective manner. However, there is uncertainty (ie they are not in control of the actual questions that appear on the paper) and it can also be a very stressful time. In these circumstances, psychologists have shown that superstitious behaviour and thinking can increase.

Behaviourists can explain superstitious behaviour in terms of operant conditioning. Leon was rewarded for wearing his green shirt in the first instance by an unexpected good result in an exam. He then decided to wear the shirt for another exam and did well again. It is known, for example, that lucky mascots can sometimes improve performance because they provide a calming mental focus before an exam or an important sporting event. The wearing of the mascot then becomes a learned behaviour. Partial reinforcement schedules could ensure that he continues to believe in the green shirt even if it does not work every time.

For full marks, candidates need to tailor their explanation explicitly to Leon's behaviour. They can offer one explanation in detail (eg the cognitive explanation) or more than one explanation in less detail.

Application of other explanations, linked to Leon's superstitious behaviour, can be credited.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 marks bands – Best Fit

5 marks Effective

Explanation demonstrates sound analysis and understanding.
Application of knowledge is effective 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.

4-3 marks Reasonable

Explanation demonstrates reasonable analysis and understanding.
Application of knowledge is reasonably effective and shows some elaboration.
Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

2 marks Basic

Explanation demonstrates basic, superficial understanding.
Application of knowledge is basic.
Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Explanation is rudimentary, demonstrating very limited understanding.
Application of knowledge is weak, muddled 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 15

AO2/AO3 = 5 marks

Candidates need to apply their knowledge of personality/cognitive factors to explain why some people are less vulnerable to anomalous beliefs in this scenario. For example, Abbie does not suffer from fantasy proneness where she muddles up reality and imagination; she probably has good reasoning skills (particularly on syllogistic reasoning tasks); she may also have a good understanding of scientific principles and understands how to differentiate between 'good' and 'bad' science; she is probably able to assess the likelihood of coincidences accurately; she probably has an internal locus of control and believes that she is responsible for outcomes like exam success.

For full marks, candidates need to relate their explanations to Abbie.
AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 marks bands – Best Fit

5 marks Effective

Explanation demonstrates sound analysis and understanding.
Application of knowledge is effective 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.

4-3 marks Reasonable

Explanation demonstrates reasonable analysis and understanding.
Application of knowledge is reasonably effective and shows some elaboration.
Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

2 marks Basic

Explanation demonstrates basic, superficial understanding.
Application of knowledge is basic.
Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

1 mark Rudimentary

Explanation is rudimentary, demonstrating very limited understanding.
Application of knowledge is weak, muddled 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 16

AO1 = 4 marks

Candidates are required to outline what research into what OBEs has shown. The focus should be on research findings. Long, procedural accounts of research studies are not creditworthy unless they provide relevant context to findings.

There is a range of appropriate research material and different text books vary considerably. Research refers to theoretical explanations of OBEs and studies so a consideration of either or both is acceptable.

Explanations can be paranormal, psychological and neurological or the sleep hypothesis. Likely studies include:

- Personal accounts/ case studies of OBEs
- Studies where OBEs have been artificially induced in the laboratory through brain stimulation or virtual reality technology (De Ridder 2007)
- Correlational studies where people who experience OBEs are compared to people who do not, on various dimensions such as visuo-spatial ability and dream control skills
- Studies linking OBEs with epilepsy and migraine (Blanke 2005).

AO1 – mark bands

4 marks	Outline is reasonably thorough, accurate and coherent.
3 – 2 marks	Outline is limited, generally accurate and reasonably coherent.
1 mark	Outline is weak and muddled or very limited
0 marks	No creditworthy material.

AO2/AO3 = 6 marks

Candidates can gain credit by evaluating research studies into OBE's. Likely material includes:

- The consideration of strengths and weaknesses of research methods including case studies and brain stimulation
- Issues such as non-falsifiability and the nature of scientific investigation e.g. generating testable hypotheses
- The possibility that there are different causes of OBE's

Candidates who offer explanations as A01 can gain A02/3 credit by considering the degree of support for these. Methodological evaluations of studies need to be made explicitly relevant to the explanation to gain A02/3 credit

AO2/AO3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others.

AO2/AO3 marks bands –Best Fit

6 marks Effective
Evaluation demonstrates sound analysis and understanding. The answer is well focused and shows coherent elaboration and/or 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
Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or 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.
3-2 marks Basic
Analysis and 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.
1 mark Rudimentary
Analysis and evaluation is rudimentary, demonstrating very limited understanding. The answer is weak muddled and incomplete. Material is not used effectively and maybe 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 17

AO2/AO3 = 2 marks

They wanted to clarify some of the issues raised by previous research where some studies had shown that red facilitated tasks and other studies had shown the opposite. They believed that one way to reconcile these different findings was to look at particular cognitive tasks eg ones which required attention to detail and to compare them with tasks which tap into very different skills eg creativity and thus to narrow down the benefits of providing red backgrounds.

One mark for a brief answer eg 'they wanted to investigate the effects of colour on performance.' One further mark for elaboration, in relation to colour and / or performance.

Question 18

AO1 = 2 marks

Candidates need to show understanding of reporting conventions. The introduction is an important part of the report that provides background information on theories and studies relevant to the investigation. One mark for a brief explanation of the purpose eg 'It provides background information', and one further mark for elaboration or for other detail such as reviewing methodological issues or how the current aims/ hypothesis were derived.

Question 19

AO1 = 1 mark

In this question, candidates are not required to relate validity to this particular study so a general definition of validity is acceptable. Definitions of specific types of validity (eg population validity) can also gain credit.

Validity refers to how well a test or a piece of research measures what it says it measures = 1 mark.

Answers such as 'truth' or 'whether it is true' 'legitimacy' or 'accuracy' = 0 marks.

Question 20**AO2/AO3 = 2 + 2 marks**

In this question, candidates have to make their answers relevant to this particular study. Candidates need to make it clear which factor refers to internal and which to external validity. Where candidates do not make this clear, examiners should accept the first factor as referring to internal validity and the second to external validity.

For each factor, one mark for a brief explanation and one further mark for elaboration.

Factors that might affect internal validity include:

- Individual differences eg colour blindness could have affect the outcome as the studies were all independent groups design
- possibility of experimenter bias in judging the creativity of the ideas.

'Individual differences' = 1 mark

'Because the researchers used an independent groups design, there could be a problem with individual differences' = 2 marks

Factors that might affect external validity include:

- sampling bias – all participants were university students
- cultural bias – study took place in Canadian university – response to colours might well be affected by cultural factors

'sample bias' – 1 mark

'There was a sampling bias. Although all the participants were university students the investigators drew more general conclusions = 2 marks'

Question 21**AO2/AO3 = 2 marks**

The Canadian researchers who actually undertook this study suggested the following possible practical applications:

- to help decide what colour to pick for an educational facility.
- To help decide what colour enhances persuasion in a consumption context.
- To help decided what colour enhances creativity in a new product design process.

Any plausible practical applications are creditworthy.

1 mark for identifying an application and 1 further mark for elaboration.

'You could use particular colours for pages in textbooks' = 1 mark

' Red might be used in textbooks covering analytical subjects like maths' = 2 marks

Question 22**AO2/AO3 = 2 marks**

If the researchers had judged the toys themselves, they might have been biased in favour of their hypothesis. There are no objective criteria for what makes a toy either practical or original. Independent judges would be able to decide between themselves on a set of criteria and then apply them to the toys made by the participants.

Some candidates might interpret 'independent judges' in this question to mean judges who do not confer with one another. In this case, an acceptable answer would be that they could not conform with one another when making their judgement.

One mark for a brief explanation, eg to avoid experimenter bias, and one further mark for elaboration, eg if the researchers judged the toys themselves.

An answer explaining the value of rating the toys should be credited.

Question 23**AO2/AO3 = 5 marks**

Candidates need to use the details in the description of the study to write an appropriate set of instructions for potential participants.

The instructions should be clear and succinct. They must:

- explain the procedures of this study relevant to participants
- include a check of understanding of instructions

They should also use language appropriate for a formal document and be as straightforward and courteous as possible.

This is not a consent form so explicit references to ethical considerations are not necessary for full marks. However, it is perfectly acceptable to include comments such as 'you are free to withdraw from the study at any time.'

AO3 Mark Bands**5 marks Effective**

The **standardised instructions** provide accurate detail of the procedure and go beyond the information given in the question eg provide details of time allowed.

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 24**AO2/AO3 = 2 marks**

'There is an association between birth order and choice of career' = 2 marks

A directional hypothesis is not creditworthy. Reference to a relationship/correlation cannot gain credit.

Although technically, the psychologist is looking for an association, candidates can gain credit for expressing the hypothesis in terms of a difference eg 'There is a difference in career choice depending on birth order.'

2 marks for a clear hypothesis, 1 mark for a hypothesis which lacks clarity.

Question 25**AO2/AO3 = 3 marks**

One mark for identifying a sampling method.

One mark for a brief explanation of how to obtain the sample eg 'by advertising for lawyers or artists to come forward'. One further mark for elaboration eg 'by explaining that adverts would have to be placed in appropriate journals etc to attract these particular categories of participants'

Candidates who identify a sampling method but describe it incorrectly can be awarded 1 mark.

Question 26**AO2/AO3 = 12 marks**

This is a 12 mark question but marks are allocated to each of the required components as follows:

- An appropriately labelled table = 2 marks

1 mark for a table that displays the data in the question.

2 marks for a table which includes data relating to non first-born children. Totals are not required for the 2 marks.

Table 1: Table to show the career choices of first born and non-first born children

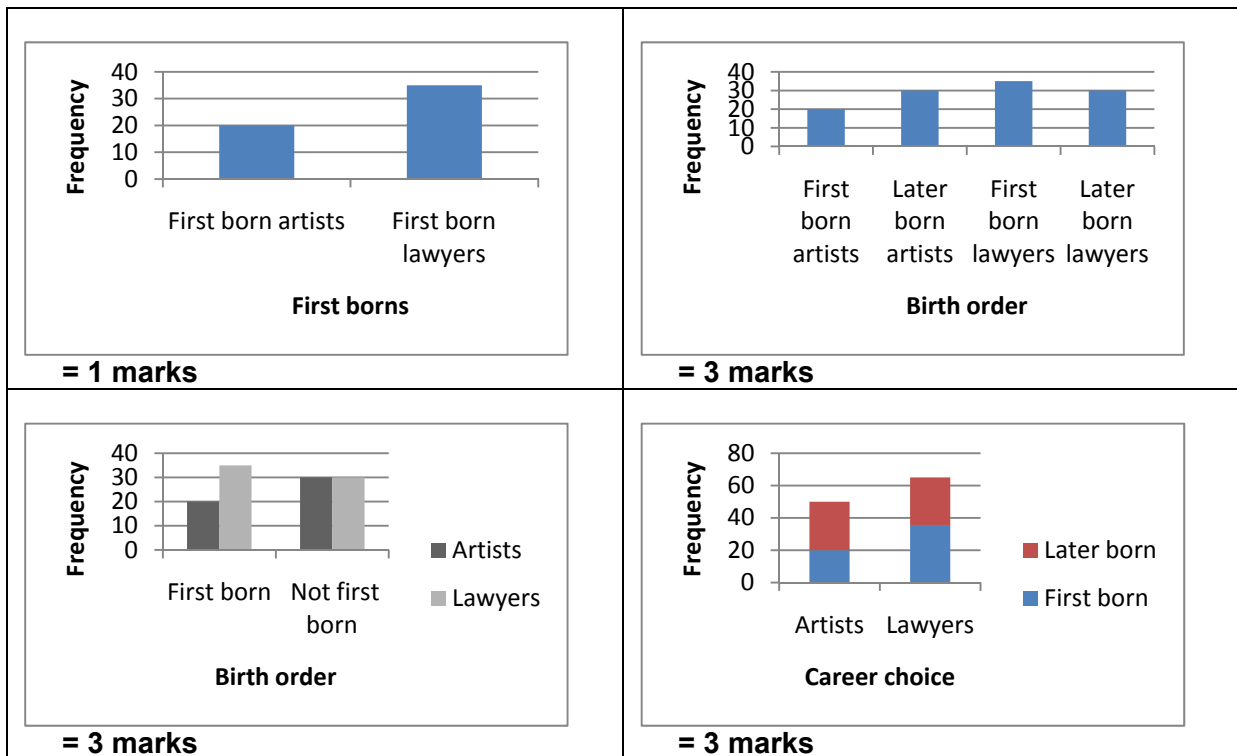
	Artists	Lawyers	Totals
First born	20	35	55
Not first born	30	30	60
Totals	50	65	115

- a sketch of an appropriately labelled bar chart = 3 marks

For 3 marks, candidates need to display the data relating to first born and non-first born career choices on a bar chart. They should label axes correctly and draw the columns to the correct approximate height for a sketch

For 2 marks, candidates display data as above but labels are missing or lack clarity

For 1 mark, candidates graph the data supplied in the question relating to first born career choices only.



NB Labelled axes but no bars = 0 marks.

- identification of appropriate statistical test and justification = 1 + 2 marks

An appropriate test here is the Chi-squared.

Justification gains 2 marks. Any two correct reasons from:

- data are independent
 - level of measurement is nominal
 - test of association / difference is required.
-
- identification of appropriate significance level = 1 mark

The most likely significance level is 5% ($p \leq 0.05$). Candidates are not asked to justify their choice. Candidates who choose a more stringent level can achieve marks but they must then follow this through when they make their statement of results.

Candidates who erroneously report 0.05% or $p = 0.5$ do not gain credit for level of significance but can achieve credit for the statement of results in relation to the hypothesis

- a statement of the results of the statistical test in relation to the hypothesis = 3 marks

For full marks, the candidate should state whether or not they can accept the hypothesis (or they can express this in terms of rejecting the null hypothesis) at a given significance level and refer to the observed and critical values.

Where candidates choose an inappropriate value from the table but interpret that value correctly, they can gain 2 marks.

The critical value for χ^2 ($df = 1$ $p \leq 0.05$ (two-tailed)) is 3.84. As the observed value of χ^2 2.27 is less than the critical value, we cannot reject the null hypothesis. There is not an association between birth order and career choice.

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