

**MARK SCHEME for the May/June 2012 question paper
for the guidance of teachers**

9773 PSYCHOLOGY

9773/03

Paper 3 (Key Applications), maximum raw mark 120

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

- Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

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There are three types of question on this paper and for each applied option these are labelled **Section A**, **Section B** and **Section C**.

Section A includes short-answer questions and although each question is marked out of 3, each question has its own specific mark scheme.

Section B includes essay questions and although the indicative content varies for each question, the mark scheme for both question parts **(a)** and **(b)** is the same. It has to be to allow standardisation across the 5 options.

Section C is the application question and although the question will vary the mark scheme does not. This means that the mark schemes for **Section B** questions **(a)** and **(b)** will appear once (immediately below) and not be repeated for each individual question as will the mark scheme for **Section C** question parts **(a)** and **(b)**. Indicative content for each question appear after the mark schemes.

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SECTION B question part (a)	
This mark scheme applies to questions 3 & 4, 8 & 9, 13 & 14, 18 & 19, 23 & 24	AO1=12
<p>Quality of description and depth of knowledge is impressive. Description of knowledge (theories/studies) is accurate, coherent and detailed. Use of terms is accurate and use of psychological terminology is comprehensive. The theories/studies described are wide-ranging. Understanding (such as elaboration, use of example, quality of description) is very good. The answer is competently structured and organised (global structure introduced at start and followed throughout). Quality of written communication is very good.</p>	10–12
<p>Quality of description and depth of knowledge is very good. Description of knowledge (theories/studies) is mainly accurate, coherent and reasonably detailed. Use of terms is mainly accurate and use of psychological terminology is competent. The theories/studies described cover a reasonable range. Understanding (such as elaboration, use of example, quality of description) is good. The answer has some structure and organisation. Quality of written communication is good.</p>	7–9
<p>Quality of description and depth of knowledge is competent. Description of knowledge (theories/studies) is often accurate, generally coherent but lacks detail. Use of terms is basic and use of psychological terminology is adequate. The theories/studies described cover a limited range. Understanding (such as elaboration, use of example, quality of description) is reasonable. The answer is lacking structure or organisation. Quality of written communication is adequate.</p>	4–6
<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate, lacks coherence and lacks detail. Use of terms and use of psychological terminology is sparse or absent. The theories/studies described cover a very limited range. Understanding (such as elaboration, use of example, quality of description) is poor. The answer is unstructured and lacks organisation. Quality of written communication is poor.</p>	1–3
No or irrelevant answer.	0

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SECTION B question part (b)

This mark scheme applies to questions 3 & 4, 8 & 9, 13 & 14, 18 & 19, 23 & 24

AO2=16

Any appropriate evaluative point to receive credit.

Most likely:

Evaluation of theory:

Internal strengths and weaknesses;

theoretical issues: reductionism, determinism, ethnocentrism.

Supporting/contradicting evidence;

Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.

Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates: Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Evaluation (balance of positive and negative points) is **comprehensive**.

Quality and **depth of argument** (or comment) is **impressive**.

Selection and range of **arguments** is **balanced** and **competently organised** into issues/debates, methods or approaches.

Effective use of appropriate supporting **examples** which are **explicitly related** to the question.

Analysis (valid conclusions that effectively summarises issues and arguments) is **evident throughout**.

Evaluation is **detailed** and quality of **written communication** is **very good**.

Understanding and usage of psychological concepts, issues, and approaches is **extensive**.

13–16

Evaluation (positive and negative points) is **very good**.

Quality and **depth of argument** (or comment) is clear and **well developed**.

Selection and range of **arguments** is **balanced** which are **logically organised** into issues/debates, methods or approaches.

Good use of appropriate supporting **examples** which are **related** to the question.

Analysis (key points and valid generalisations) is **often evident**.

Evaluation is **quite detailed** and quality of **written communication** is **very good**.

Understanding and usage of psychological concepts, issues, and approaches is **competent**.

10–12

Evaluation (positive and negative points) is **good**.

Quality and **depth of argument** (or comment) is **limited**.

Selection and range of **arguments** may be **imbalanced** with **some organisation** into issues/debates, methods or approaches evident.

Limited use of appropriate supporting **examples** which are **related** to the question.

Analysis (key points and valid generalisations) is **sometimes evident**.

Evaluation is **lacking in detail** and quality of **written communication** is **good**.

Understanding and usage of psychological concepts, issues, and approaches is **adequate**.

7–9

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<p>Evaluation (positive and negative points) is limited. Quality and depth of argument (or comment) is poor. Selection and range of arguments is often imbalanced with little or no organisation into issues/debates, methods or approaches evident. Sparse use of appropriate supporting examples which are often peripherally related to the question. Analysis (key points and valid generalisations) is sparse. Evaluation is lacking in detail and quality of written communication is good. Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6
<p>Evaluation (positive and negative points) is basic. Quality and depth of argument (or comment) is weak. Selection and range of arguments is imbalanced with little or no organisation into issues/debates, methods or approaches evident. Sparse or no use of appropriate supporting examples which are peripherally related to the question. Analysis (key points and valid generalisations) is barely discernible. Evaluation is severely lacking in detail and quality of written communication is poor. Understanding and usage of psychological concepts, issues, and approaches is weak.</p>	1–3
No or irrelevant answer.	0

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SECTION C question part (a)	
This mark scheme applies to questions 5, 10, 15, 20, 25	AO2=8
<p>In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.</p>	
<p>Suggestion is appropriate to the question and based explicitly on psychological knowledge. Description of applied knowledge is accurate, coherent and detailed. Understanding (such as elaboration, use of example, quality of description) is very good.</p>	7–8
<p>Suggestion is appropriate to the question and based on psychological knowledge. Description of applied knowledge is mainly accurate, coherent and reasonably detailed. Understanding (such as elaboration, use of example, quality of description) is good.</p>	5–6
<p>Suggestion is largely appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate, generally coherent but lacks detail. Understanding (such as elaboration, use of example, quality of description) is reasonable.</p>	3–4
<p>Suggestion is mainly inappropriate to the question and vaguely based on psychological knowledge. Description of applied knowledge is mainly inaccurate, lacks coherence and lacks detail. Understanding (such as elaboration, use of example, quality of description) is poor.</p>	1–2
No or irrelevant answer.	0

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SECTION C question part (b)	
This mark scheme applies to questions 5, 10, 15, 20, 25	AO1=6
In this question part candidates are expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).	
Quality of explanation and depth of argument is impressive. Description of knowledge is accurate, coherent and detailed. Use of terms is accurate and use of psychological terminology is comprehensive . Understanding (such as elaboration, use of example, quality of description) is very good . The issue is effectively explained in relation to the topic area.	5–6
Quality of explanation and depth of argument is competent. Description of knowledge is mainly accurate, coherent and reasonably detailed. Use of terms is mainly accurate and use of psychological terminology is competent . Understanding (such as elaboration, use of example, quality of description) is good . The issue is adequately explained in relation to the topic area.	3–4
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate, generally coherent but lacks detail. Use of terms is basic and use of psychological terminology is adequate . Understanding (such as elaboration, use of example, quality of description) is poor . The issue is poorly explained in relation to the topic area.	1–2
No or irrelevant answer.	0

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Psychology and Abnormality

Section A

1 Somatic therapies (e.g. Prozac and ECT) are sometimes used to treat depression.

(a) Describe one somatic therapy in the treatment of depression. [3]

Details of specification:

Applications:

- Cognitive Behavioural Therapy (e.g. Beck)
- Somatic Therapy (e.g. Prozac and ECT).

Somatic therapy is a general name for 'physical' therapies rather than psychological ones. Inclusion of Prozac and ECT on the specification supports the type of therapy this is. Candidates can either write about ECT or Prozac or any other antidepressant.

Prozac is a brand name for an antidepressant. The drug name is fluoxetine which is an SSRI.

ECT (electroconvulsive therapy).

3 marks for accurate and detailed description of one somatic therapy with clear understanding.

2 marks for accurate description of one somatic therapy with some understanding.

1 mark for vague description of one somatic therapy with little understanding.

(b) Suggest three problems with the use of the somatic therapy described in (a). [3]

Most likely: (but any other appropriate problem to be credited).

Prozac:

- Many side effects including nausea, insomnia, somnolence, anorexia, anxiety and sexual side effects. Prozac is also associated with a higher than average suicide rate.
- Withdrawal or discontinuation problems, known as 'prozac poopout'!
- The drug is addictive.
- The drug reduces the symptoms rather than the cause.

ECT:

- Many side effects, particularly loss of memory such as amnesia.
- It is still not known how ECT works.
- ECT does not remove the cause of the problem.

1 mark for each appropriate and different problem.

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- (c) Outline three assumptions of the model of abnormality on which somatic therapies are based. [3]

Details of specification:

Models of abnormality: biomedical, behavioural, psychoanalytic and cognitive. More specifically in the topic area of depression, included are: biomedical, psychoanalytic and cognitive models. The question requires candidates to give three assumptions of the biomedical model

- mental disorders can be understood and treated in the same way as physical disorders
- the focus is on biomedical aspects rather than behavioural or cognitive components
- symptoms are malfunction or biological functioning
- mental disorders treated physiologically with drugs, surgery, etc.

3 marks: three different assumptions, however basic.

2 marks: two different assumptions, however basic.

1 mark: one assumption, however basic or detailed.

2 From the study by Tice et al. on emotional distress regulation:

- (a) Briefly describe one theory proposed to explain why emotional distress impairs regulation. [3]

From the article:

- One theory is based on **psychodynamic theory** and holds that some forms of emotional distress give rise to self-destructive tendencies. According to Piers and Singer (1953/1971), for example, guilt makes people desire to suffer or to be punished. A person who feels distress may therefore abandon the positive pursuit of desirable goals and even the normal conduct of healthy, adaptive behaviours because the aversive state generates self-defeating motivations.
- **Capacity:** A second line of theory would predict that emotional distress prevents rational thought and therefore undermines the **capacity** to effectively regulate oneself. According to this view, people who are emotionally upset cease to function as rational, goal-oriented beings, and as a result, they become unable to regulate their behaviour toward the pursuit of positive outcomes and goals.
- **Motivation:** Yet another line of theory suggests that emotional distress may impair the **motivation** (as opposed to the capacity) to regulate oneself in the normal, optimal fashion. This approach can be subdivided into apathy, rebellion, and self-efficacy hypotheses.
- **Priority shift:** The present investigation was spurred by the view that the effects on self-regulation may be strategic. Specifically, we propose that people may abandon or violate their normal self-regulatory efforts because they give priority to affect regulation over other forms of self-regulation. In plain terms, distress makes the quest for pleasure take precedence over impulse control.

3 marks for accurate and detailed description of one theory with clear understanding. For example "the psychodynamic view is based on the work of Freud which suggests that emotional distress causes self-destructive tendencies and this is how regulation is impaired. On the other hand there are many who believe the subconscious mind does not exist and that impairment has nothing to do with destructive tendencies. For example, there is the cognitive view which suggests that emotional distress overloads our capacity to regulate ourselves. The problem is therefore a cognitive one and not a subconscious one."

2 marks for accurate description of one theory with some understanding.

1 mark for vague description of theory with little understanding.

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- (b) Contrast the theory described in (a) with an alternative theory of why emotional distress impairs regulation. [3]

Four theories outlined above. Any one can be contrasted with any other.

3 marks: contrast clear ie point being made has both sides clearly contrasted in detail.

2 marks: contrast evident ie point being made has both sides presented.

1 mark: attempted contrast. There must be some comment that contrasts one explanation with another.

0 marks if two explanations are described with no attempt to contrast; also if comparison is provided.

- (c) To what extent do you agree with the conclusion drawn by Tice et al.? Give a reason for your answer. [3]

The article concludes that emotionally distraught people indulge their impulses because they hope that indulgence will bring pleasure that may repair their mood and dispel their distress. Impulse control is sometimes at odds with affect regulation, and acute bad moods seem to shift the balance in favour of the short term pursuit of pleasure instead of the self-denial required to pursue long-term goals. One may still make moral judgments about the abandonment of impulse control under distress, but from a purely pragmatic standpoint, it does appear to have a strategic rationality behind it.

From the abstract:

The implication is that when people are upset, they indulge immediate impulses to make themselves feel better, which amounts to giving short-term affect regulation priority over other self-regulatory goals.

3 marks: agreement/disagreement with reason stated clearly and fully with understanding.

2 marks: agreement/disagreement with reason stated with some understanding.

1 mark: agreement/disagreement with vague reason stated with little understanding.

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Section B

3 (a) Describe theory and research on perspectives in abnormality. [12]

Details of specification:

Answers will most likely include aspects below (but candidates can include any explore more)

Theory:

- Who is abnormal? (deviation from the statistical norm, deviation from ideal mental health, deviation from social norm)
- Classification and diagnosis of psychological abnormality (DSM IV)
- Models of abnormality: biomedical, behavioural, psychoanalytic and cognitive.

Research:

Exorcism-resistant ghost possession treated with Clopenthixol (Hale et al. 1994). Koro: A state of sexual panic or altered physiology? (e.g. Choudhrey).

Key Study:

Ahn, W.-K., Flanagan, E. H., Marsh, J. K. and Sanislow, C. A. (2006) Beliefs about essences and the reality of mental disorders. *Psychological Science*, 17, 759–766.

Applications:

Treatments of mental disorders: Psychotherapy, Cognitive Behavioural Therapy and drug therapy.

(b) Evaluate theory and research on perspectives in abnormality. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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- 4 (a) Describe the key study by Brewer et al. on impairment of olfactory identification in individuals who later develop schizophrenia. [12]

Abstract from study:

Objective: Previous investigation has revealed stable olfactory identification deficits in neuroleptic-naïve patients experiencing a first episode of psychosis, but it is unknown if these deficits predate illness onset.

Method: The olfactory identification ability of 81 patients at ultra-high risk for psychosis was examined in relation to that of 31 healthy comparison subjects. Twenty-two of the ultra-high-risk patients (27.2%) later became psychotic, and 12 of these were diagnosed with a schizophrenia spectrum disorder.

Results: There was a significant impairment in olfactory identification ability in the ultra-high-risk group that later developed a schizophrenia spectrum disorder but not in any other group.

Conclusions: These findings suggest that impairment of olfactory identification is a pre-morbid marker of transition to schizophrenia, but it is not predictive of psychotic illness more generally.

- (b) Evaluate the key study by Brewer et al. on impairment of olfactory identification in individuals who later develop schizophrenia. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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Section C

5 In their key study Simeon et al. suggest the following list of factors which could be explored in future research on depersonalisation: more sophisticated trauma measurements, neuropsychological testing, biological imaging and challenge studies, and prospective treatment trials.

(a) Using your knowledge of psychology, design a study to investigate one of the factors mentioned by Simeon et al. [8]

In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.

(b) Explain the evidence on which your study is based. [6]

In this question part candidates are expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).

Candidates may suggest research on depersonalisation disorder or bring in research from other areas of mental illness. They are likely to show competence in research methodology.

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Psychology and Crime

Section A

6 From the study by Kassin and Sommers on inadmissible testimony, instructions to disregard, and the jury:

(a) Describe one of the three experimental conditions of the independent variable. [3]

From the article:

The presentation contained 23 paragraphs. In a **baseline control** version of the case, the prosecutor's evidence was circumstantial, incomplete, and ambiguous.

In three experimental versions, however, a police officer revealed (in paragraph 9) that a wiretap from an unrelated case produced an audio taped telephone conversation in which the defendant can be heard confessing to a friend minutes after fleeing the scene. In all conditions, the defense lawyer objected to this disclosure. The judge's ruling appeared in Paragraph 10.

In the **admissible group**, the judge overruled the objection, admitted the tape, and instructed the jury that it was proper as a form of evidence.

In the **inadmissible/due-process group**, the judge sustained the objection and admonished the jury to disregard the tape because it was secured without a proper warrant. He explained that to ensure a fair trial, the jury should not consider evidence that was illegally obtained.

In the **inadmissible/unreliable group**, the judge again sustained the objection but admonished the jury to disregard the tape because it was barely audible and difficult to determine what was said. The judge then explained that to ensure a fair trial, a Jury should not consider evidence that is unreliable.

3 marks for clear and concise description of one condition with full understanding.

2 marks for description of one condition with some understanding.

1 mark for vague description of one condition.

(b) Describe the results of the study broken down by post-trial condition. [3]

Overall, 36 participants voted guilty, and 45 voted not guilty, yielding a conviction rate of 44.4%.

Broken down by condition, the results support the hypothesis that jurors would exhibit selective compliance with instructions to disregard. Compared with a low 24% conviction rate in the control group, the conviction rate increased in the admissible wiretap group (79%) and in the inadmissible/due-process group (55%) but not in the inadmissible/unreliable group (24%), $X^2(3, N = 81) = 17.31, p < .001$

3 marks: clear and concise description of results that have been broken down by condition.

2 marks: attempt at description of results that have been broken down by condition.

1 mark: description of overall results with no evidence that they have been broken down by condition.

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(c) Suggest why it is difficult to generalise from studies involving mock juries. [3]

Any reasonable comment acceptable, For example:

- Participants know they are taking part in a mock trial; this can cause demand characteristics.
- Participants know that their decision is irrelevant and no-one will be sentenced.
- Participants know that they are not hearing a full trial.

3 marks: the candidate clearly understands what a generalisation is and provides one or more appropriate suggestions as to why studies of mock juries are difficult to generalise.

2 marks: the candidate understands what a generalisation is and provides one or more suggestions as to why studies of mock juries are difficult to generalise although this may lack some clarity.

1 mark: the candidate lacks understanding of what a generalisation is although provides a weak suggestion as to why it is difficult to generalise from juries.

7 From the study by Paulus et al. on death rates, psychiatric commitments, blood pressure and perceived crowding as a function of institutional crowding:

(a) Briefly describe the results for the levels of perceived crowding of the prisoners. [3]

From the article:

Inmates were given a questionnaire on which they could indicate by a mark the degree to which they felt crowded. The following categories were used: uncrowded, moderately crowded, crowded, or very crowded. In general, inmates in the three types of housing perceived their housing conditions as crowded, but the inmates in the 3/19 and 6/19 units reported significantly higher degrees of perceived crowding as compared to inmates living in 2/29 cells ($F = 28.67$, $df = 2/110$, $p < 0.001$). Correlation analyses of perceived crowding scores of inmates in these as well as in other housing indicated that perceived crowding was strongly related to spatial density (square feet per man) with social density (number of inmates in cell) partialled out ($r = .48$, $df = 144$, $p < .01$). A similar correlation between perceived crowding and social density with spatial density partialled out was statistically significant but relatively weak ($r = .15$, $df = 144$, $p < .05$).

3 marks for accurate description of several aspects of results.

2 marks for description of several aspects of results.

1 mark for vague description of one component of results.

(b) Suggest two weaknesses with the way in which data for perceived crowding was gathered. [3]

Any reasonable weaknesses acceptable, For example:

- Participants were given a forced-choice questionnaire with only four options: uncrowded, moderately crowded, crowded, or very crowded. There is no flexibility/wider choice available.
- This is a questionnaire and participants may not give truthful/honest answers.
- This questionnaire is closed and gathers quantitative data. Participants are not required to express their feelings and must reduce them to a single word.

3 marks: two weaknesses each appropriate with elaboration and understanding.

2 marks: one very clear weakness or two with little or no elaboration and limited understanding.

1 mark: one weakness with limited understanding.

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(c) Briefly discuss the use of archival data in psychological studies. [3]

Most likely:

Archival research is performed by analysing studies conducted by other researchers or by looking at historical records.

Advantages:

- the experimenter cannot change any participant behavior
- large amounts of data over a period of time provide better trends, etc
- it may be less expensive (free) and internet based.

Disadvantages:

- there is no control over how data was collected
- important information may be missing from the records
- the research used to gather the data may be unreliable.

3 marks: discussion is clearly argued and shows good understanding.

2 marks: discussion with some understanding.

1 mark: brief discussion with limited understanding.

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Section B

8 (a) Describe the key study by Farrington et al. on criminal careers and life success. [12]

Abstract from study:

The Cambridge Study in Delinquent Development is a prospective longitudinal survey of the development of offending and antisocial behaviour in 411 males first studied at age 8 in 1961 at the time they were all living in a working-class deprived inner-city area of South London. The study describes their criminal careers up to age 50, looking at both officially recorded convictions and self-reported offending. It also examines life success up to age 48 based on nine criteria which were also measured on a comparable basis at age 32. The main aims were to investigate the development of offending and antisocial behaviour from age 10 to age 50 and the adult life adjustment of 'persisters', 'desisters' and 'late-onset' offenders at age 48.

(b) Evaluate the key study by Farrington et al. on criminal careers and life success. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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9 (a) Describe theory and research on the effects of crime. [12]

Details of specification:

Answers will most likely include aspects below (but candidates can include any explore more)

Theory:

- Measuring crime: The British Crime Survey (Home Office, 2007)
- Fear of crime: Cultivation theory (Gerbner, 1973) and availability heuristic (Shrum, 1996)
- Effects of Crime: Characteristics of post traumatic stress disorder (DSM IV).

Research:

Crime in England and Wales 2006/2007: Summary of the main statistics.

Television News and the Cultivation of Fear of Crime (Romer et al. 2003).

Key Study:

Rubin, G. J., Brewin, C. R., Greenberg, N., Simpson, J. and Wessely, S. (2005) Psychological and behavioural reactions to the bombings in London on 7 July 2005: cross sectional survey of a representative sample of Londoners. *British Medical Journal*, 331(7517): 606.

Applications:

Treating post traumatic stress disorder: Eye Movement Desensitization and Reprocessing (Shapiro, 2002) and Cognitive Behavioural Therapy.

(b) Evaluate theory and research on the effects of crime. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;

theoretical issues: reductionism, determinism, ethnocentrism.

Supporting/contradicting evidence;

Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.

Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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Section C

10 Rossmo (2000) suggests that, in general, criminals offend close to their homes (or other base) and the number of offences drops off with increasing distance from their home.

(a) Using your knowledge of psychology, design a study to test the effectiveness of geographical offender profiling. [8]

In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.

(b) Explain the evidence on which your study is based. [6]

In this question part the candidate is expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).

Candidates should know about geographical profiling (and other types), and they should also know about the work of David Canter, particularly his work in using geographical profiling with John Duffy. Candidates should also know about a range of different methods and they should also know various issues and debates applicable to their suggestion.

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Psychology and Environment

Section A

11 From the study by North et al. on the effect of musical style on restaurant customers' spending:

(a) The study used an independent groups (subjects) design. Describe why this type of design was used and how it was implemented. [3]

The research employed an independent subjects design such that each participant was exposed to only one of the music conditions. Each condition lasted for a total of 6 nights and was counterbalanced by day of the week and week in the year using a Latin square design.

3 marks: reason for use stated with clear understanding of this design. Description of how implemented clear.

2 marks: reason for use stated and description of how implemented. Limited understanding.

1 mark for vague description of design and implementation.

(b) Suggest how the study could have used an alternative design and say what advantage this would provide. [3]

Most likely (other appropriate answers to receive credit):

The alternative would be to use a repeated measures design. Each participant would eat with a different piece of music (rather than a knife and fork!).

The advantage would be that the person is then their own control and could spend according to their musical preference.

3 marks: alternative design and advantage appropriate and clearly explained with elaboration.

2 marks: alternative design and advantage appropriate but basic and lacking elaboration.

1 mark: alternative design **or** advantage mentioned but with little or no elaboration or understanding.

(c) North et al. believe that the findings of the study have obvious commercial implications. Suggest what these implications might be. [3]

Most likely (other appropriate answers to receive credit):

Most basic: if classical music is played in 'upmarket' restaurants, then customers are more likely to spend more money. But what about other places? This is where imagination (and a little common-sense) will apply.

3 marks: suggestions appropriate, with elaboration and understanding.

2 marks: suggestions appropriate but basic and lacking detail. Some understanding.

1 mark: suggestions basic with little elaboration or understanding.

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12 (a) Using examples, suggest three common errors in cognitive maps. [3]

Possible answers either from the study itself or from 'errors in cognitive maps' (also on the specification):

From the study:

- Sketch maps rarely reflected the correct metric relationships among identifiable locations in the virtual world, including distinct locations that followed each other. Turns and bends were typically drawn as right-angle turns even if they were not, and areas with many turns or bends were enlarged at the expense of straight road segments.
- The relative lengths of the straight road segments were often reproduced inaccurately. For example, the road segment between buildings 7 and 11 is 1.1 times as long as the segment between buildings 17 and 18. In the 10 sketch maps (out of the 16 total) in which these segments could be measured, this ratio varied from 0.5 to 2.

From 'errors in cognitive maps':

1. maps are often incomplete: we leave out minor details.
2. we augment - add non-existent features.
3. we distort by having things too close together, too far apart or mis-aligning. People often over-estimate the size of familiar areas.
4. superordinate-scale bias: We group areas together and make judgement on area rather than specific place, e.g. Stevens & Coupe (1978)
5. Euclidean bias: people assume roads etc are grid-like: they are not.
6. Segmentation bias: Allen & Kirasic (1985) we estimate distances incorrectly when we break a journey into segments compared to estimate as a whole.

1 mark for each *different* error.

(b) What were the three types of sketch map produced by the participants in the study by Aginsky et al. on strategies for learning a route in a driving simulator? [3]

Most likely (other appropriate answers to receive credit):

0-D Place type.

(19% of subjects.) Isolated accurately each with some local spatial structure. Places often include information for their recognition.

1-D Place type.

(50% of subjects.) Places that had been encountered sequentially are explicitly connected but there is little global structure. Places tend to be enlarged; straight sections often merely connect successive places. Sometimes successive places are not in the right order.

2-D Place type.

(31% of subjects.) Places that had been encountered sequentially are connected; some of the places that had not been encountered in sequence are connected spatially. Route segment lengths are accurate. Places tend not to be enlarged.

1 mark: for each appropriate description to 3 marks max.

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- (c) According to Aginsky et al. two main conclusions can be drawn from the present study. What are these two conclusions? [3]

Quoting from article:

Two major conclusions can be drawn from the present study.

First, subjects follow one or two strategies in learning a route, resulting in different mental representations.

Second, subjects are very selective in picking up information from the environment; only information in the vicinity of choice point is retained.

3 marks: both conclusions, well described with understanding.

2 marks: both conclusions, reasonable description with some understanding.

1 mark: one conclusion, or identification of both.

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Section B

- 13 (a) Describe the key study by Diener et al. on the effects of deindividuation on stealing amongst Halloween trick-or-treaters. [12]

Abstract of study:

A naturalistic study was conducted on Halloween to assess the effects of three deindividuation variables on stealing by children. Concealed raters unobtrusively observed over 1,300 trick-or-treating children who were assigned to various conditions and given an opportunity to steal candy and money. The independent variables were anonymity versus nonanonymity, alone versus group, and groups with or without a child who was made responsible for the group actions. Significantly more stealing was observed under conditions of anonymity ($p < .001$) and in the presence of a group ($p < .001$). There was also an interaction effect between these variables. Altered responsibility affected the transgression rate only when both the leader and members were anonymous. The highest rates of stealing occurred among anonymous children in groups with altered responsibility.

- (b) Evaluate the key study by Diener et al. on the effects of deindividuation on stealing amongst Halloween trick-or-treaters. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
theoretical issues: reductionism, determinism, ethnocentrism.
Supporting/contradicting evidence;
Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

- 14 (a) Describe psychological theory and research on personal space. [12]

Details of specification:

Theory:

- Definitions, types (alpha, beta, asymmetry), distances (Hall, 1963)
- Measures: simulation, stop-distance, questionnaire (Duke and Nowecki, 1972)
- Cultural differences (Little, 1968).

Research: Personal space invasions: Felipe and Sommer (1966); Middlemist et al. (1976); Smith and Knowles (1978).

Key Study: Smith, R. J. and Knowles, E. S. (1978) Attributional Consequences of Personal Space Invasions.

Personality and Social Psychology Bulletin, Vol. 4, No. 3, 429–433.

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Applications:

- Reducing crime at an ATM (cash machine) Home Office (2007).

(b) Evaluate psychological theory and research on personal space.

[16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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Section C

15 According to Clarke (2002), people in an emergency situation do not panic but instead help each other and develop a 'we are all in this together' mentality which Clarke calls 'we-ness'.

- (a) Using your knowledge of psychology, design a study to investigate how people behave in an emergency situation. [8]**

Indicative content: In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.

- (b) Explain the evidence on which your study is based. [6]**

Indicative content: In this question part candidates are expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).

Candidates may mention the 'social contagion' (panic) explanation proposed by Le Bon (1895) and give examples where people did indeed panic. They may quote the Cocking (2005) self categorisation approach or that by Drury (2007) and Clarke (2002) all suggesting that there is a team spirit, a sense of 'we-ness'.

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Psychology and Health

Section A

16 The study by McKinstry and Wang (putting on the style) used a questionnaire.

- (a) One question asked was: 'Which doctor would you feel happiest about seeing for the first time?' This was scored from 0 to 5 for each model. Give one advantage and one disadvantage of this type of question. [3]

Most likely answers:

Advantage: use of five point scale allows a range of answers to be given, including a neutral mid-point.

Advantage: use of a forced choice scale means participants must commit themselves to a response.

Advantage: data is quantitative and so it allows statistical analysis and comparison.

Disadvantage: a five point scale may be too restrictive and participants are forced to choose.

Disadvantage: no qualitative data so participants cannot express why they have chosen a particular answer.

3 marks for clear and concise advantage and disadvantage of questionnaire with understanding.

2 marks for reasonable advantage and disadvantage of questionnaire with some understanding (or one very good advantage / disadvantage).

1 mark for vague advantage or disadvantage of questionnaire, or both but mere identification and no elaboration.

- (b) What were the findings from this question? [3]

From the article:

"Table 1 shows the number of patients allocating scores from 0 to 5 to each style of dress shown in the photographs according to how happy they would feel about seeing that doctor for the first time."

The abstract from the study states:

"Overall, patients seemed to favour a more formal approach to dress, with the male doctor wearing a formal suit and tie and the female doctor in a white coat scoring the most high marks. This was particularly true of older patients and those in social classes 1 and 2. The male doctor wearing a tweed jacket and informal shirt and tie scored fewer low marks and this was therefore the least disliked of the outfits."

3 marks for clear and concise description of results with elaboration and understanding.

2 marks for reasonable description of results with some elaboration and some understanding.

1 mark for vague/limited description of results.

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- (c) 'The scores were ranked and all results were subject to statistical analyses. Results reported as significant were significant to the 5% level'. Outline one disadvantage of selecting a 5% significance level in this study. [3]

Most likely (other appropriate answers to receive credit):

In summary: if a result is accepted as significant at greater than 5% (such as 10%) it is likely that a type one error is made. However, if a result is accepted as significant at a lower level than 5% (such as 1%) then a type two error may be made.

3 marks for clear, concise and correct outline of type one and type two errors that shows good understanding.

2 marks for correct outline of type one and type two errors that shows some understanding.

1 mark for vague but correct outline of type one and type two errors with limited understanding.

17 From the study by Simons et al. on pain in newborn babies:

- (a) According to the nurses, which procedure caused most pain and which procedure caused least pain? According to the doctors, which procedure caused the most pain? [3]

Nurses most pain – intubation.

Nurses least pain – cranial ultrasound.

Doctors most pain – heelstick or intramuscular injection (both score very similar, very likely the same).

1 mark: for each correct identification up to max 3.

- (b) Describe how it was determined which procedures were considered to be moderately painful. [3]

From the study:

247 questionnaires were distributed. The pain score was on a 10-point scale. Across all respondents and procedures the mean was 5.2. "Because procedures were scored on a ten point scale, results can be compared with a frequently used pain score, the visual analogue scale. A visual analogue score above 4 is generally used as a criterion for extra analgesic therapy. Therefore procedures with a pain score above 4 can be considered as moderately painful."

3 marks for clear and full description of measure with understanding.

2 marks for reasonable description of measure with some understanding.

1 mark for vague description of measure which has limited or no understanding.

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- (c) Giving a reason for your answer, say whether newborn babies should be given analgesia or not. [3]

Most likely:

For: a number of procedures are described as painful and harmful by doctors and nurses and so neonates should be given analgesia.

“Indeed, preterm neonates are highly sensitive to pain and amass acute responses to painful procedures. Long-term effects of painful procedures in neonates occur as a consequence of their immature and vulnerable nervous systems, reflected in an altered pain response possibly leading to changes in neural development. Studies in animals indicate developmental changes in the brain and in the spinal dorsal horn that are associated with neonatal pain. A higher frequency of painful invasive procedures in low birth weight infants has been associated with a greater pain response at 32 weeks compared with controls. Although it is unknown whether these changes in pain response persist until older age, more cognitive and psychopathological problems have been reported in children who are born preterm.”

For: there have been no long term studies of the negative effects of morphine use.

“The only study investigating long-term effects of human neonatal morphine treatment showed no effects in 5- to 6-year-olds.”

Against: neonates can be harmed by analgesia.

“there is controversy about the risks and benefits of continuous opioid administration (and as a consequence neonatologists are reluctant to prescribe them).”

“Restrained use of opioids by neonatologists can be explained by the fact that there is wide disagreement as to whether the evidence base is sufficient to justify prolonged exposure to opioids in this vulnerable population.

There is some evidence, from studies in rats, that neonatal morphine exposure causes specific long-term behavioral effects and might cause retarded growth and motor development. 58 underlying pathologic mechanisms have been demonstrated by morphine-induced apoptosis in human foetal cell cultures and by p-opiate receptor down-regulation following morphine treatment in neonatal rat brain.”

3 marks: appropriate answer with supporting evidence which will be from study itself. Clear understanding of analgesia in neonates.

2 marks: appropriate answer, possibly with supporting evidence but this may be anecdotal, brief and shows little understanding of analgesia in neonates.

1 mark: appropriate answer but poor arguments, little or no supporting evidence and little or no understanding of use of analgesia in neonates.

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Section B

18 (a) Describe the key study by Carr on compliance with medical advice. [12]

Details of specification:

It has been estimated that about 40% of patients do not comply with doctors' advice on treatment.

The paper then makes a number of recommendations:

- Develop an appointment system which ensures minimum patient waiting time.
- Adopt a friendly and informal conversational style which encourages patients to provide information.
- Assess patients' beliefs about the aetiology of their complaints and their expectations concerning treatment.
- Clarify how much information patients would like about their condition.
- Offer an explanation of the patient's condition and the rationale for treatment.
- Present the treatment regimen and the rationale upon which it is based in language that patients can understand and which allows them to remember what has been said.
- Help the patient appreciate the costs and benefits of compliance and non-compliance.
- Enlist the aid of the patient's family or friends in helping the patient comply with medical advice.
- Review compliance at each follow-up consultation.

(b) Evaluate the key study by Carr on compliance with medical advice. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;

theoretical issues: reductionism, determinism, ethnocentrism.

Supporting/contradicting evidence;

Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.

Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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19 (a) Describe psychological theory and research on health promotion. [12]

Details of specification:

Theory:

- Ways to promote health: fear appeals (Leventhal et al., 1967; Thornton et al., 2000)
- Providing information (Lewin et al., 1992, 2006, Petrie et al., 2007).

Research: Health promotion programmes: Worksite (Gomel et al., 1993), School (Walter et al., 1985), Community (Cowpe, 1989).

Key Study: Tapper, K., Horne, P. J. and Lowe, C. F. (2003) The Food Dudes to the Rescue. *The Psychologist*, January 2003, vol16, No 1.

Applications:

- Diet of children (Tapper et al., 2003).

(b) Evaluate psychological theory and research on health promotion. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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Section C

20 Students often get stressed before examinations. You have developed a strategy to help prevent students from becoming stressed. It is called PSST (preventing student stress therapy). You wish to test it out, and you know that stress involves both physiological and psychological components.

(a) Using your knowledge of psychology, suggest how the effectiveness of PSST can be tested. [8]

In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.

(b) Explain the evidence on which your study is based. [6]

Most likely: In this question part candidates are expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).

Candidates have knowledge (from the Health: stress topic area and also the stress topic from papers 1 & 2). As the question mentions physiological and psychological components it is likely that a mention will be made of physiological measures (blood pressure, heart rate, MRI scan, GSR, etc) and psychological measures (such as questionnaires).

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Psychology and Sport

Section A

21 (a) Outline one explanation of social facilitation in humans. [3]

Most likely:

Zajonc (1965) the **mere presence** of others causes arousal. If a task/activity is simple then performance improves (social facilitation). However, if a task/activity is complex then performance declines (social inhibition).

Cottrell (1968) proposes the **evaluation apprehension theory**. It is suggested that it is not the mere presence of others, but the apprehension created when being evaluated by others.

Baron (1986) proposes the **distraction-conflict theory**. Here it is suggested that we can only process a limited amount of information at once. If a task/activity is simple, it needs little attention and we can 'process' an audience too. However, if a task/activity is complex and we process the audience we are overloaded and performance declines.

3 marks for accurate and detailed description of one theory with clear understanding.

2 marks for accurate description of one theory with some understanding.

1 mark for vague description of theory with little understanding.

(b) Contrast one explanation of social facilitation in humans with an alternative explanation. [3]

Three theories outlined above. Any one can be contrasted with any other.

3 marks: contrast clear ie point being made has both sides clearly contrasted in detail.

2 marks: contrast evident ie point being made has both sides presented.

1 mark: attempted contrast. There must be some comment that compares one explanation with another.

0 marks: if two explanations are described with no attempt to compare.

(c) Giving a reason for your answer, suggest the extent to which animal studies of social facilitation support the explanation outlined in (a). [3]

Any appropriate answer to receive credit.

Most likely:

Zajonc (1965) performed studies of social facilitation in rats and cockroaches. He suggested that the mere presence of other animals caused social facilitation or inhibition. However, Cottrell performed studies on cockroaches and found the results supported his theory.

3 marks: suggestion and supporting example clearly described with good understanding.

2 marks: suggestion and supporting example clearly described with some understanding.

1 mark: suggestion or supporting example described with limited understanding.

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22 From the study by McAuley et al. on measuring causal attributions:

(a) Describe the sample of participants in study 1 and what they were required to do. [3]

From the article:

In the first study, 144 undergraduate students (74 males, 70 females) participated as partial fulfilment of an introductory psychology course requirement. After receiving the results of their midterm examination in psychology, subjects completed a questionnaire on which they indicated how well they thought they had performed on the examination and then made an open-ended causal attribution for their performance. Subjects coded that attribution in terms of items representing locus of causality, stability, personal control, and external control.

3 marks: appropriate and detailed description of participants and requirements with understanding.

2 marks: appropriate description of participants and requirements with some understanding.

1 mark: basic description of participants and/or requirements with limited understanding.

(b) Using examples, suggest two disadvantages of using this sample of participants. [3]

Most likely (any appropriate disadvantage to be given credit):

- The participants are all students and so they are less likely to be representative of the population and so generalisations are more problematic.
- The participants are all introductory psychology students as partial fulfilment of their course requirement. The participants may be more susceptible to demand characteristics.
- The participants may have no option and have to participate. Coercion characteristics? They may have no right to withdraw.

3 marks: two disadvantages with appropriate detail and relevant examples.

2 marks: two disadvantages with some elaboration with examples.

1 mark: two disadvantages and no examples, or one disadvantage with an example.

(c) Describe three features of the revised causal dimension scale (CDSII). [3]

Most likely (any appropriate feature to be given credit):

- The CDSII has 12 items with 'opposites'.
- Opposites are rated on a scale from 9 to 1.
- Scores are calculated for 4 dimensions of causality, external control, stability and personal control.
- Each dimension scored between 3 and 27.
- CDSII is a questionnaire that gathers quantitative data.

1 mark: for each appropriate feature up to max 3.

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Section B

23 (a) Describe theory and research on leadership and team cohesion in sport. [12]

Details of specification:

Theory:

- Fiedler's contingency model (1967)
- Chelladurai's multidimensional model of leadership (1978)
- Grusky (1963).

Research: Cohesiveness in sport: Carron's conceptual system (determinants and consequences) (1982), Widmeyer et al. (1985) Elements of Cohesion and Measures of it (GEQ).

Key Study: Widmeyer, W. N. and Williams, J. M. (1991) Predicting Cohesion in a Coacting Sport. *Small Group Research*, 1991; 22; 548.

Applications:

- Developing team cohesion (e.g. Cox, 1994)
- Coach behaviour/effectiveness (Smith et al. 1977, 1979).

(b) Evaluate theory and research on leadership and team cohesion in sport. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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24 (a) Describe the key study by Davis and Cox on anxiety and zone of optimal functioning. [12]

Abstract of study:

The purpose of this study was to examine Jones' (1991) directionality hypothesis and Hanin's (2000) individual zone of optimal functioning model. Swimmers' performance was examined to determine if cognitive and somatic anxiety was within cognitive and somatic individual zones of optimal functioning (IZOFs). Direction of cognitive and somatic anxiety was examined to determine if anxiety within IZOFs would be reported as facilitative to performance. One 3 X 3 (cognitive anxiety x somatic anxiety) ANOVA was calculated using ipsative *t* scores as the performance dependent variable. Two separate one factor ANOVAs for cognitive anxiety and somatic anxiety were calculated using ipsatised cognitive and somatic direction scores as the dependent variables. Results indicated support for Hanin's IZOF theory relative to intensity of cognitive anxiety, however, interpretations of anxiety within IZOFs failed to provide support for the directional hypothesis. Results are explained via examination of extant anxiety-performance and directionality literature. Potential limitations and implications for future research are discussed.

(b) Evaluate the key study by Davis and Cox on anxiety and zone of optimal functioning. [16]

Any appropriate evaluative point to receive credit.

Evaluation of theory:

Internal strengths and weaknesses;
 theoretical issues: reductionism, determinism, ethnocentrism.
 Supporting/contradicting evidence;
 Comparisons and contrasts with alternative theory.

Evaluation of research:

Strengths and weaknesses of methods, sample, controls, procedure.
 Evaluation of and comparisons and/or contrasts with alternative approaches.

Evaluation of issues and debates:

Any relevant debate can be raised, such as objective versus subjective data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

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Section C

25 Zuckerman (1987) devised a questionnaire which assesses sensation seeking. You think that there is a link between sensation seeking and high risk sports so you decide to investigate this.

- (a) Using your knowledge of psychology, design a study to investigate whether sensation seekers engage in high risk sports. [8]**

In this question part candidates are free to suggest any way in which the assessment request could be investigated. This may be in the form of a number of suggestions for research, application or development of a theoretical approach, or it may be that candidates design their own study to investigate the assessment request. Such an approach can include any appropriate method. Each answer should be considered individually as it applies to the mark scheme.

- (b) Explain the evidence on which your study is based. [6]**

In this question part candidates are expected to justify his or her decisions or evidence presented regarding the suggestion(s) made in answer to question part (a).

The key study by Kajtna is the most obvious because it is referred to in the question.

Candidates may also refer to research on sensation seeking and they should have methodological knowledge about any method other than a self-report.