

**MARK SCHEME for the May/June 2010 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.

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

CIE is publishing the mark schemes for the May/June 2010 question papers for most IGCSE, Pre-U, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



Page 2	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Psychology and Abnormality

Section A

1 From the Simeon et al study on thirty cases of Depersonalisation disorder:

(a) Distinguish between depersonalisation and dissociative identity disorder. [3]

Most likely:

Depersonalisation is an 'alteration' in the perception or experience of the self so that one feels 'detached' from, and as if one is an 'outside' observer of, one's mental processes or body. There is no **multiple** personality.

The **causes** of depersonalisation: a side effect of *dissociatives* and *hallucinogens*, as well as common drugs such as marijuana, caffeine, alcohol, etc. It is a classic *withdrawal* symptom from many drugs.

Dissociative Identity Disorder (DID) is a condition in which a person displays multiple distinct *identities* or *personalities*, each with its own pattern of perceiving and interacting with the environment.

The **causes** are theoretically linked with the interaction of overwhelming *stress*, traumatic antecedents, insufficient childhood nurturing, and an innate ability to *dissociate* memories or experiences from *consciousness*. A **symptom** of DID could be depersonalisation.

A distinction requires analysis of both aspects with an element of comparison and so is AO2.

3 marks for accurate explanation of depersonalisation **and** DID with clear understanding of difference.

2 marks for explanation of depersonalisation **and** DID with some understanding of difference.

1 mark for vague explanation of depersonalisation **and** DID with little understanding of difference.

(b) Outline one case study of depersonalisation disorder. [3]

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

The three below are quoted from the Simeon article.

Ms. A was a 43-year-old woman who was living with her mother and son and worked at a clerical job. She had felt depersonalised as far back as she could remember: "It is as if the real me is taken out and put on a shelf or stored somewhere inside of me. Whatever makes me me is not there. It is like an opaque curtain . . . like going through the motions and having to exert discipline to keep the unit together." She had suffered several episodes of depersonalisation annually and found them extremely distressing. She had experienced panic attacks for 1 year when she was 35 and had been diagnosed with self-defeating personality disorder. Her childhood trauma history included nightly genital fondling and frequent enemas by her mother from earliest memory to age 10.

Mr. B was a 37-year-old married professional man who had suffered from depersonalisation disorder since age 10. He vividly recalled its acute onset on a day when he was playing football: he was tackled by another boy and suddenly felt that his body had disappeared. The depersonalisation was initially episodic but became continuous by age 14. He described it as "not being in this world . . . I am disconnected from my body. It is as if my body is not there."

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

The depersonalisation was lessened when he was alone and almost disappeared in his wife's presence. All social settings made it much worse. He met criteria for schizoid personality disorder. As a child he had suffered marked emotional neglect. His parents fed and clothed him but never expressed emotion; he recalled hardly ever being touched or kissed. It is of interest that his sense of detachment only involved his body and not other aspects of the self.

Mr. C was a 36 year old male performer who had had five lifetime episodes of depersonalisation disorder; each had lasted several months. The first one occurred at age 14 on the third occasion that he had used LSD. The second one occurred at age 21 upon smoking marijuana, which he did very rarely. The third episode occurred 3 years later as he was reading a book about drugs and had felt very frightened by the memory of his past experiences; there had been no recent drug use. At age 34, Mr. C again suffered depersonalisation, which he felt was triggered by romantic and financial stressors. The latest episode occurred after he looked up depersonalisation disorder in a medical textbook and discovered a damning description with little hope of cure. He described his experience as "a feeling of unreality and distance, like I am a spectator of my own movements and of what is going on." Mr. C had been suffering from generalised anxiety disorder since age 14. He also met criteria for obsessive-compulsive, self-defeating, and borderline personality disorders. There was no reported childhood history of abuse or neglect.

3 marks for clear and concise description of case study with most aspects included.

2 marks for reasonable explanation of case study with some aspects included.

1 mark for vague explanation of case study with few aspects included.

(c) Using an example from this study, give one limitation of case studies. [3]

This answer requires two aspects: a limitation and a supporting example.

NB example can come from the Simeon study OR from a case study as described in (b) above.

Most likely:

- Case studies are of one individual and therefore cannot be generalised, e.g. A, B or C.
- Case studies are often unique and may not conform to the typical pattern or norm, e.g. A, B or C.
- The depth to which the participant is investigated can lead to subjectivity in the researcher (especially in this case as they devised their own semi-structured interview).

3 marks for clearly described limitation PLUS relevant supporting example which shows understanding.

2 marks for described limitation PLUS relevant supporting example with some understanding.

1 mark for vaguely described limitation which may have supporting example provided.

Page 4	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

2 From the Brewer et al study on impairment of olfactory identification:

(a) Outline *three* reasons why some participants were excluded from the study. [3]

Quoting directly from the article:

Subjects were excluded from the study based on the following criteria:

- 1 Documented organic brain impairment
- 2 History of head injury with loss of consciousness
- 3 Current viral or other severe medical condition, upper respiratory tract disease, cold, sinus problem, or hay fever
- 4 A history of nasal trauma
- 5 Estimated premorbid IQ of less than 70
- 6 Documented poor eyesight or hearing
- 7 The comparison subjects were excluded from study participation if they had a personal or documented family history of psychiatric illness in first- or second-degree relatives.

1 mark for each correct reason (doesn't have to be word-for-word).

(b) Briefly describe what was found for smokers compared with non-smokers and what was found for males compared with females. [3]

Quoting directly from the article:

Smoking had no effect on smell identification ability across the groups and no interaction between study group and smoking was found. Overall, those who smoked had virtually identical mean scores on the smell identification test as the nonsmokers.

Sex differences have previously been found in performance on the smell identification test, such that olfaction ability in the male sex is generally more compromised than in the female sex. A sub-analysis of our data supported these findings.

3 marks: Correct answer for both smokers/non-smokers and males/females with elaboration.

2 marks: Partially correct answer, for both smokers/non-smokers and males/females; no elaboration.

1 mark: vague answer; both smokers/non-smokers or males/females.

(c) Using an example from this study, suggest one strength of the physiological approach. [3]

Most likely:

Any advantage of physiological psychology:

- More 'scientific'
- Use of objective data
- Physiological processes are not culturally specific.

3 marks for clearly described strength PLUS relevant supporting example which shows understanding.

2 marks for described strength PLUS relevant supporting example with some understanding.

1 mark for vaguely described strength which may have supporting example provided.

Page 5	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section B

3 (a) Describe explanations for impulse control disorders.

[12]

Relevant theory includes:

- 1 One theory is based on psychodynamic theory and holds that some forms of emotional distress give rise to self-destructive tendencies.
- 2 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 behavior toward the pursuit of positive outcomes and goals.
- 3 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.

Other appropriate research also to receive credit.

<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 marks
<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 marks
<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. Quality of written communication is adequate, but the answer is lacking structure or organisation.</p>	4–6 marks

Page 6	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 7	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Evaluate explanations for impulse control disorders.

[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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12marks

Page 8	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good, but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is good.</p>	4–6 marks
<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 marks
No or irrelevant answer.	0 mark

Page 9	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- 4 (a) Describe the key study by Shapira et al on brain activation by disgust-inducing pictures in obsessive compulsive disorder. [12]

Abstract from study:

Background: There is growing interest in the role of disgust in the pathogenesis of obsessive-compulsive disorder (OCD).

Methods: Eight OCD subjects with contamination preoccupations and eight gender- and age-matched healthy volunteers viewed pictures from the International Affective Picture System during functional magnetic resonance imaging scans.

Results: A different distribution of brain activations was found during disgust-inducing visual stimulation in several areas, most notably the insula, compared with neutral stimulation in both OCD subjects and healthy volunteers. Furthermore, whereas activation during the threat-inducing task in OCD subjects showed a pattern similar to that in healthy volunteers, the pattern of activation during the disgust-inducing task was significantly different, including greater increases in the right insula, parahippocampal region, and inferior frontal sites.

Conclusions: This pilot study supports the relevance of disgust in the neurocircuitry of OCD with contamination preoccupation symptoms; future studies looking at non-OCD individuals with high disgust ratings, non-contamination-preoccupied OCD individuals and individuals with other anxiety disorders are needed.

<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 marks
<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 marks

Page 10	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<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. Quality of written communication is adequate, but the answer is lacking structure or organisation.</p>	4–6 marks
<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 11	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Evaluate the key study by Shapira et al on brain activation by disgust-inducing pictures in obsessive compulsive disorder. [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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 12	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6 marks
<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 marks
No or irrelevant answer.	0 mark

Page 13	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section C

- 5 In an article in *The Psychologist* in 2008 it was reported that for the majority of patients with depression, anti-depressant medication is clinically no more effective than placebo.

- (a) Using your knowledge of psychology suggest how the use of placebo could be investigated. [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.

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 .	7–8 marks
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 .	5–6 marks
Suggestion is appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate and generally coherent, but lacks detail . Understanding (such as elaboration, use of example, quality of description) is reasonable .	3–4 marks
Suggestion is appropriate to the question and based vaguely on psychological knowledge. Description of applied knowledge is mainly inaccurate and lacks coherence and detail . Understanding (such as elaboration, use of example, quality of description) is poor .	1–2 marks
No or irrelevant answer.	0 marks

Page 14	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Explain the ethical and methodological decisions on which your suggested investigation 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).

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 marks
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 marks
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate and 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 marks
No or irrelevant answer.	0 mark

Page 15	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Psychology and Crime

Section A

6 From the study by Mann et al on suspects, lies and videotape:

(a) Briefly describe *three* of the categories of behaviour that were observed. [3]

Quote directly from the article. The behaviours observed were:

- **Gaze aversion:** number of seconds in which the participant looked away from the interviewer
- **Blinking:** frequency of eye blinks
- **Head movements:** frequency of head nods (upward and downward movement was counted as a separate nod), head shakes (similar to head nods, each sideways movement was counted as a separate shake), and other head movements that were not included as head shakes or head nods (e.g., tilting the head to the side, turning the face etc)
- **Self-manipulations:** frequency of scratching the head, wrists etc. (touching the hands was counted as hand/finger movements rather than self-manipulations)
- **Illustrators:** frequency of arm and hand movements which were designed to modify and/or supplement what was being said verbally
- **Hand/finger movements:** any other movements of the hands or fingers without moving the arms
- **Speech disturbances:** (they were scored on the basis of a typed verbatim text) frequency of saying "ah" or "mmm," etc. between words, frequency of word and/or sentence repetition, sentence change, sentence incompleteness, stutters etc. Deviations from the official English language (e.g., local dialects such as saying "it weren't me" rather than "it wasn't me") were not included as speech errors
- **Pauses:** number of seconds where there is a noticeable pause in the monologue of the participant, when the suspect actually stops between words for a period of approximately 0.5 s or more, stopping the free flow of conversation for a period of time whilst the suspect thinks of the next word.

1 mark for each correct description of category of behaviour.

Page 16	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Contrast *two* ways in which liars are expected to behave with the ways in which most liars actually behave. [3]

Direct quote from article:

When asked what behaviors to look for in a liar, most people, often including professional lie detectors such as the police and customs officers, will reply:

“avoiding eye contact with the target and an increase in nervous fidgety movements”

Behaviors such as **gaze aversion** and fidgeting are signs of nervousness. Apparently, observers expect liars to behave nervously.

However, previous research into deception has repeatedly demonstrated that rather than increase in fidgety behavior, most people **decrease** in **nonfunctional movements** and become unnaturally still. It has also been shown that **liars do not decrease eye contact**. In fact, there is no relationship between eye contact and deception.

So how do most liars behave (according to this study)?

The most reliable indicators of deception were blinking and pauses, where the majority of participants **paused longer** (81%) and **blinked less** (81%) while lying.

3 marks for clear and concise description of expected liar behaviour contrasted with clear and concise description of actual liar behaviour.

2 marks for reasonable description of expected liar behaviour contrasted with reasonable description of actual liar behaviour.

1 mark for vague description of either but with no contrast.

- (c) Briefly discuss *one* way in which the ecological validity of this study was different from most other laboratory studies investigating the behaviour of liars. [3]

Most likely:

Other laboratory studies

- Ask people to tell a lie (or tell the truth) about some issue, so they are acting. This means the person will lie and not feel guilty about it. Unlike a real criminal who is telling a lie.
- Participants know they are in an experiment and that they are being videotaped and so their behaviour is again false. Unlike a real criminal who are being interviewed by the police.
- The lie being told is irrelevant and there are no consequences. Unlike a real criminal who may 'get away with it'.

3 marks for appropriate suggestion of ecological validity based on this study, with elaboration and understanding.

2 marks for logical suggestion of ecological validity which shows understanding and little elaboration.

1 mark for vague suggestion of ecological validity which has limited or no understanding.

Page 17	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

7 From the study by Rubin et al on psychological and behavioural reactions to the bombings in London in 2005:

(a) Describe the method of data collection and the sampling technique. [3]

Quoting directly from the article:

Market and Opinion Research International (MORI) conducted a telephone survey by using a random digit dialling method for all London telephone numbers.

The survey used proportional quota sampling, a standard method for opinion polls that entails setting quotas for participants on a range of demographic factors and ensures that the sample interviewed is representative of the population of interest. In this survey, we set quotas with regard to sex, age, working status, residential location, housing tenure and ethnicity to make our sample representative of the demographic distribution of London, as shown in the most recent census data.

3 marks: Correct description of MORI telephone survey PLUS description of quota sampling technique with factors.

2 marks: Correct identification of MORI telephone survey PLUS identification of quota sampling technique OR good description of one aspect.

1 mark: identification of method OR identification of sampling technique.

(b) Using supporting evidence, give one weakness with this method of data collection. [3]

Most likely:

- 1 High participant attrition
- 2 Refusal to participate
- 3 Problems of filling quotas/over-quota.

Quoting directly from the article:

We contacted 11,072 people, of whom 1059 were ineligible or over quota with regard to their demographics.

Of the 10,013 eligible respondents, 1207 agreed to participate and 1010 completed the interview (10.1%).

However, of the 197 people who started an interview but withdrew before completion, 21 were unhappy discussing the bombings, 8 did not believe the survey was relevant, 64 did not have time to continue, 36 refused to supply a reason, and 68 were dropped for technical or other reasons.

3 marks: Appropriate weakness accurately described PLUS appropriate supporting evidence.

2 marks: Appropriate weakness described in context of the study.

1 mark: Appropriate weakness identified.

Page 18	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (c) Describe the question used to measure prevalence of stress and describe how participants' responses were assessed. [3]

Example of question directly from article:

As a result of the London bombings, to what extent have you been bothered by:

- Feeling upset when something reminds you of what happened
- Repeated disturbing memories, thoughts, or dreams about what happened
- Having difficulty concentrating
- Trouble falling or staying asleep
- Feeling irritable or having angry outbursts.

Assessment via 6 point scale: Not at all, A little bit, Moderately, Quite a bit, Extremely, Substantial stress

3 marks: Description of question and components PLUS assessment scale.

2 marks: Description of question or components PLUS assessment scale.

1 mark: Correct identification of question or of assessment.

Page 19	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section B

- 8 (a) Describe the key study by Kassin and Sommers on inadmissible testimony, instructions to disregard, and the jury. [12]

Abstract from study:

The present study tested the hypothesis that jurors comply selectively with instructions to disregard inadmissible evidence. A total of 81 mock jurors read a murder trial summary in which a wiretap was ruled admissible, inadmissible because it was not reliable, or inadmissible because it was illegally obtained (there was also a no-wiretap control group). As predicted, participants were more likely to vote guilty and interpret subsequent evidence as more incriminating in the admissible and inadmissible/due process conditions than in the admissible/unreliable and control groups. These results suggest that jurors are influenced not by the judge's ruling per se but by the causal basis for that ruling. Conceptual and practical implications are discussed.

<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth 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. Quality of written communication is adequate, but the answer is lacking structure or organisation.</p>	4–6 marks

Page 20	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth or breadth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 21	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Evaluate the key study by Kassin and Sommers on inadmissible testimony, instructions to disregard, and the jury. [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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 22	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6 marks
<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 marks
No or irrelevant answer.	0 mark

Page 23	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

9 (a) Describe theories proposed to explain criminal behaviour. [12]

Details of specification:

Theory:

- Cognitive Theories: Rational choice theory (Cornish and Clarke, 1986) and Criminal Thinking Patterns (Yochelson and Samenow, 1976)
- Learning Theory: Differential Association Theory (Sutherland, 1939)
- Personality Theory: Personality theory and crime (Eysenck, 1977)

<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks
<p>Quality of description and depth or breadth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 24	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Evaluate theories proposed to explain criminal behaviour.

[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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 25	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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 marks
<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 marks
No or irrelevant answer.	0 mark

Page 26	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section C

10 One of the key difficulties experienced by many offenders is the inappropriate expression of their anger. However, many treatment programmes do not provide suitable alternative expressions of anger. What is needed is an appropriate way to assess suitability for anger management programmes.

(a) Using your knowledge of psychology, suggest how offenders can be assessed for suitability for an anger management programme. [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.

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 .	7–8 marks
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 .	5–6 marks
Suggestion is largely appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate and generally coherent, but lacks detail . Understanding (such as elaboration, use of example, quality of description) is reasonable .	3–4 marks
Suggestion is mainly inappropriate to the question and vaguely based on psychological knowledge. Description of applied knowledge is mainly inaccurate and lacks coherence and detail . Understanding (such as elaboration, use of example, quality of description) is poor .	1–2 marks
No or irrelevant answer.	0 marks

Page 27	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Explain the evidence on which your suggestion 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)**.

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 marks
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 marks
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate and 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 marks
No or irrelevant answer.	0 mark

Page 28	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Psychology and Environment

Section A

11 (a) Outline LeBon's contagion explanation of how people behave in emergency situations. [3]

From his book *The Crowd* (Le Bon, 1895):

- The spread of a behaviour from an individual to a group he called social contagion.
- Individuals are transformed into a crowd as numbers increase & take on a "group mind" – feelings of power & invincibility and losing of normal constraints.
- Otherwise normally civilised people become "barbarians" – wild and irrational, giving vent to irrational impulses.
- "... by the mere fact that he forms part of an unorganised crowd, a man descends several rungs in the ladder of civilisation. Isolated, he may be a cultivated individual; in a crowd he is a barbarian – that is a creature acting by instinct."

3 marks for clear and concise description of social contagion with understanding.

2 marks for reasonable description of social contagion with some understanding.

1 mark for vague description of social contagion with little or no understanding.

(b) Give a real-life example of the contagion explanation of behaviour in emergencies. [3]

Most likely:

A **real life** illustration: In 1903 a fire in a Chicago theatre saw people panicking and stampeding in their desperation to escape. 602 lives were lost.

This is a 'classic' and the History Channel has a film about it.

However, ANY appropriate example is acceptable.

3 marks for clear and concise description of real life example.

2 marks for reasonable description of real life example.

1 mark for vague description of real life example.

Page 29	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (c) **Contrast the contagion explanation of behaviour in emergencies with an alternative explanation.** [3]

Most likely alternatives:

Schank and Abelson (1973) outlined the concept of **script schemata**. The idea is that people have a mental programme of how we & others are likely to behave in a particular situation. The script is the logical sequence of events we follow. Studies show that even in an emergency of leaving a crashed plane, people still follow the script of how to leave a plane. There is evidence from Donald & Canter explaining people's behaviour during the Kings Cross underground fire.

Turner (1974) proposed the **Emergent Norm Theory**: At first, members of the crowd represent a wide range of attitudes and behaviour. Then one dominant and persuasive person can convince others in the crowd to behave in a certain way and gradually they all conform to this emerging norm. One person shouts 'fire' and everyone panics.

NB: Question asks for comparison, so description only scores 1 mark maximum.

3 marks for one clear contrast between contagion explanation and an alternative.

2 marks for an attempt to contrast alternative with contagion explanation.

1 mark for vague attempt to contrast alternative with contagion explanation, OR no contrast evident.

- 12 (a) **Describe one laboratory study looking at the negative effects of noise on aggression.** [3]

Most likely:

Geen & O'Neil (1969) laboratory experiment.

Donnerstein & Wilson (1976) laboratory experiment.

3 marks: Correct and well-detailed description of appropriate study with understanding.

2 marks: Correct description of appropriate study with some understanding.

1 mark: Description of appropriate study with limited or no understanding.

- (b) **To what extent do studies on noise and aggression suggest cause and effect?** [3]

Most likely:

Noise does not cause aggression. However, noise is a factor that is likely to make a person pre-disposed to aggression behave in an aggressive way. This should be known by candidates.

The question raises the issue of cause and effect, so this is a logical feature of the answer. Experiments do imply cause and effect, correlations do not. As question part (a) is a description of a laboratory experiment then this may lead candidates to suggest there is cause and effect. Interesting to read answers.

3 marks: Appropriate comment, well-presented PLUS appropriate supporting argument.

2 marks: Appropriate comment PLUS reference to appropriate supporting argument.

1 mark: comment that is lacking, has little or no supporting comment and lacks understanding.

Page 30	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (c) Describe *one* variable that could be controlled in laboratory experiments on noise and aggression. [3]

Most likely:

Levels of noise: Decibel level is often different, e.g. Geen & O'Neil 60dB, Donnerstein & Wilson 95dB.

Type of noise: actual noise is often different, e.g. Geen & O'Neil used white noise.

DV: how is aggression measured? Often via shocks of electricity to another person.

Any other logical variable.

3 marks: Appropriate suggestion, well described with understanding.

2 marks: Appropriate suggestion, reasonable description with some understanding.

1 mark: vague suggestion with little or no understanding.

Page 31	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section B

13 (a) Describe studies which have invaded personal space.

[12]

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.

Candidates should focus on research.

<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth 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 marks
<p>Quality of description and depth or breadth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks

Page 32	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth or breadth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 33	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Evaluate studies which have invaded personal space.

[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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks
<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks

Page 34	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

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

Page 35	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

14 (a) Describe research on crowding in animals.

[12]

Specification:

Animal Studies: Dubos (1965), Christian (1960), Calhoun (1962).

One of the classic studies of **naturalistic observation** comes from the work of **Dubos (1965)** with his work on Lemmings. Dubos found that when these Lemmings became overpopulated (usually every 3-4 years), they would migrate to the sea and jump off a cliff, where many would drown. Dubos attributed this to density-induced, biological pre-programming of the brain. However, many claim that this is false and that the behaviour was artificially created by Disney in the film *White Wilderness*. Dubos' theory was also discredited by Attenborough in 'Where Lemmings Dare,' a TV documentary.

Christian et al (1960) who recorded the activities of a herd of Sika Deer. The herd had been introduced onto James Island, Maryland, USA. A few deer were released in 1916 and they successfully bred until by 1955 the population had reached about 300 in number. In 1958 there was a widespread interest in the deer because, for no obvious reason, over half the herd died within a short period of time. Detailed examinations of the deer's vital organs found that there were no obvious abnormalities besides the size of the adrenal glands, which in some cases were 10X the size of control samples. The suggested reason for the death of the deer was that their deaths were due to overactive adrenal functioning caused by crowding (high social density).

A **laboratory study** of crowding was done by **Calhoun** in 1962. Calhoun designed a 'rat universe' and in a series of six trials installed populations of Norway rats and watched what happened as population size increased.

The rat universe consisted of a rectangular box, 10' X 14' in size, divided into 4 cells which could house 12 rats in comfort. With breeding occurring so freely there was a high mortality rate in pens 2 & 3 (between 80 – 96%). The pens produced 4 types of male rat. The 4th group were described as 'probers' by Calhoun; these were hyperactive, hypersexual, sometimes homosexual and occasionally cannibalistic. The conclusion was that crowding produced abnormal behaviours.

Page 36	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<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 marks
<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 marks
<p>Quality of description and depth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks
<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 37	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Discuss the extent to which research on crowding in animals can be generalised to humans. [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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 38	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good, but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6 marks
<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 marks
No or irrelevant answer.	0 mark

Page 39	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section C

15 Homing pigeons are said to find their way home using the magnetic fields of the earth. They can do this because of a substance in their brain called magnetite which detects the difference in magnetic field between their home and their current position. The question is whether humans have magnetite or not.

(a) Using your knowledge of psychology suggest how the existence of magnetite in humans can be investigated. [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.

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 .	7–8 marks
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 .	5–6 marks
Suggestion is largely appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate and generally coherent, but lacks detail . Understanding (such as elaboration, use of example, quality of description) is reasonable .	3–4 marks
Suggestion is mainly inappropriate to the question and vaguely based on psychological knowledge. Description of applied knowledge is mainly inaccurate and lacks coherence and detail . Understanding (such as elaboration, use of example, quality of description) is poor .	1–2 marks
No or irrelevant answer.	0 marks

Page 40	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Explain the evidence on which your suggestion 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)**.

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 marks
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 marks
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate and 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 marks
No or irrelevant answer.	0 marks

Page 41	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Psychology and Health

Section A

16 (a) Briefly describe the nicotine regulation model. [3]

The **Nicotine Regulation Model** believes smokers continue to smoke to maintain a level of nicotine in their bodies.

Nicotine is easily absorbed and triggers the release of catecholamines, causing stimulation and arousal. But the effect decays quickly (after 20–60 minutes), so another dose is needed. If this is not achieved, then unpleasant withdrawal symptoms begin. Model is purely biological.

3 marks for correct description of NRM which shows understanding.

2 marks for description of NRM which shows some understanding.

1 mark for poor description of NRM which has limited or no understanding.

(b) Briefly discuss one limitation of the nicotine regulation model. [3]

Most likely:

The NRM itself is purely biological. There are alternative explanations, such as the Freudian (psychodynamic).

Nicotine is addictive with a short half-life. Withdrawal symptoms kick-in due to physical dependency.

However:

- 1 People who quit smoking typically continue to crave it. They often return to smoking long after all the nicotine has left their bodies.
 - 2 Some people who smoke for years do not become addicted.
 - 3 The Biobehavioural theory (O & C Pomerleau, 1989), suggests that nicotine regulates cognitive and emotional states, which means that is more than purely biological.
- There is no 'correct' answer here. Candidates can argue it either way.

3 marks for clear and concise discussion of one limitation, with understanding.

2 marks for reasonable discussion of one limitation, with some understanding.

1 mark for vague discussion of one limitation which has limited or no understanding.

(c) Outline a non-biological explanation of why people continue to smoke cigarettes. [3]

Most likely:

Variation on the more usual 'contrast'. Alternative must be described, but must also be compared.

Alternative explanation:

Freudian model of oral fixation

Social/modeling explanation of why children smoke

Any appropriate alternative to receive credit.

Comparisons could be basic: involves smoking cigarette but can include addiction and dependency.

3 marks for alternative compared in two or more ways with NRM.

2 marks for attempt to compare alternative with NRM.

1 mark for vague attempt to compare alternative with NRM, OR no comparison evident.

Page 42	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (a) Outline one piece of research that gathered quantitative data to measure non-adherence to medical requests. [3]

Most likely:

Pill counts:

Norell (1979), when studying glaucoma patients, developed an automatic eyedropper, allowing continuous measurement of when and how many times the dropper was used.

Cramer et al (1989) devised a microprocessor in a pill cap. Records not only number of pills but time of day.

Chung and Naya, (2000) used an electronic device (TrackCap) on the medicine bottle which recorded the date and time of each use.

Roth (1987) concluded that blood and urine levels are more reliable measures of medicine intake than pill counts.

Sherman et al., (2000) checked for adherence by telephoning the patient's pharmacy to assess the refill rate.

3 marks: Accurate description of study with understanding.

2 marks: Mainly accurate description of study with some understanding.

1 mark: Weak description of study with limited or no understanding.

- (b) Using an example, suggest *one* limitation when gathering quantitative data to measure adherence to medical requests. [3]

Most likely:

- Provides numbers but no explanation of reasons why patients adhere or do not adhere.
- The first time a count is taken the patient may be caught out. But they can 'trick' count on future attempts to measure.

Any appropriate comment to receive credit. NB: question also wants a supporting example.

3 marks: Appropriate limitation accurately described PLUS appropriate supporting evidence.

2 marks: Appropriate limitation described PLUS some supporting evidence.

1 mark: Appropriate limitation identified PLUS vague supporting evidence OR limitation described with no evidence.

Page 43	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (c) Using an example, suggest *one* strength when gathering quantitative data to measure adherence to medical requests. [3]

Most likely:

- Provides numbers which can be statistically analysed.
- Data is objective and not a socially desirable answer on the part of a participant.

Any appropriate comment to receive credit.

NB: question also wants a supporting example.

3 marks: Appropriate strength accurately described PLUS appropriate supporting evidence.

2 marks: Appropriate strength described PLUS some supporting evidence.

1 mark: Appropriate strength identified PLUS vague supporting evidence OR strength described with no evidence.

Page 44	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

18 (a) Describe research that has investigated doctor-patient interactions. [12]

From specification:

Doctor-patient interactions:

- Non-verbal communication (McKinstry and Wang, 1991)
- Verbal communication (Ley, 1989)
- Communication styles (Savage and Armstrong, 1991)

Research: Doctor decision-making: Judgements of risk (Marteau, 1990), patient disclosure of symptoms. (Robinson and West, 1992).

Key Study: McKinstry, B. and Wang, J. X. (1991) Putting on the style: what patients think of the way their doctor dresses.

Applications: Using-Misusing health services: Munchausen syndrome (Aleem and Ajarim, 1995). Hypochondriasis (Barlow and Durand, 1995).

<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 marks
<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 marks
<p>Quality of description and depth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks

Page 45	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 46	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Evaluate research that has investigated doctor-patient interactions.

[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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 47	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Evaluation (positive and negative points) is good.</p> <p>Quality and depth of argument (or comment) is limited.</p> <p>Selection and range of arguments may be imbalanced, with some organisation into issues/debates, methods or approaches evident.</p> <p>Limited use of appropriate supporting examples which are related to the question.</p> <p>Analysis (key points and valid generalisations) is sometimes evident.</p> <p>Quality of written communication is good but evaluation is lacking in detail.</p> <p>Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<p>Evaluation (positive and negative points) is limited.</p> <p>Quality and depth of argument (or comment) is poor.</p> <p>Selection and range of arguments is often imbalanced, with little or no organisation into issues/debates, methods or approaches evident.</p> <p>Sparse use of appropriate supporting examples which are often peripherally related to the question.</p> <p>Analysis (key points and valid generalisations) is sparse.</p> <p>Quality of written communication is good but evaluation is lacking in detail.</p> <p>Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6 marks
<p>Evaluation (positive and negative points) is basic.</p> <p>Quality and depth of argument (or comment) is weak.</p> <p>Selection and range of arguments is imbalanced, with little or no organisation into issues/debates, methods or approaches evident.</p> <p>Sparse or no use of appropriate supporting examples which are peripherally related to the question.</p> <p>Analysis (key points and valid generalisations) is barely discernible.</p> <p>Evaluation is severely lacking in detail and quality of written communication is poor.</p> <p>Understanding and usage of psychological concepts, issues, and approaches is weak.</p>	1–3 marks
No or irrelevant answer.	0 mark

Page 48	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

19 (a) Describe ways in which pain can be measured.

[12]

From specification:

Measuring pain (psychometric e.g. MPQ, visual rating scales, observation e.g. UAB). Pain in a laboratory (cold-pressor procedure).

Additional ways in which pain can be measured:

- 1 self report/interview methods
- 2 rating scales: e.g. visual analogue scale and category scale
- 3 pain questionnaires: e.g. MPQ (McGill Pain Questionnaire); MMPI often used too but is not pain specific
- 4 behavioural assessment: e.g. UAB
- 5 psycho-physiological measures: use of EMG, ECG & EEG
- 6 laboratory measures: cold pressor test.

<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 marks
<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 marks
<p>Quality of description and depth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks

Page 49	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 50	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Compare and contrast ways in which pain can be measured.

[16]

Any appropriate evaluative point to receive credit.

Answers must focus on measurement and there must be balance of comparisons and contrasts.

Most likely:

- Comparisons and contrasts of differing approaches, such as physiological and cognitive
- Comparisons and contrasts of actual measures such as physiological and behavioural
- Comparisons and contrasts with who is doing the measuring: the person in pain or a practitioner
- Comparisons and contrasts with objective measures and subjective measures
- Comparisons and contrasts with reliability and validity of various measures.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks
<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks

Page 51	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

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

Page 52	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section C

20 The 'Food Dude' study by Tapper, Horne and Lowe was very successful. Tapper et. al. suggest that "the peer-modelling and rewards-based approach used here could be adapted to help bring about other forms of behaviour change in health domains...we believe that great gains can be made for people – not simply by informing them of what they should and shouldn't be doing, but by applying known behaviour principles in a systematic and coherent position".

- (a) Using your knowledge of psychology, suggest how the principles used in this programme could be applied to *one* other dietary health problem. [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.

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 .	7–8 marks
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 .	5–6 marks
Suggestion is largely appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate and generally coherent but lacks detail . Understanding (such as elaboration, use of example, quality of description) is reasonable .	3–4 marks
Suggestion is mainly inappropriate to the question and vaguely based on psychological knowledge. Description of applied knowledge is mainly inaccurate and lacks coherence and detail . Understanding (such as elaboration, use of example, quality of description) is poor .	1–2 marks
No or irrelevant answer.	0 marks

Page 53	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Explain the evidence on which your suggestion is based.

[6]

Most likely:

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)**.

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 marks
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 marks
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate and 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 marks
No or irrelevant answer.	0 marks

Page 54	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Psychology and Sport

Section A

21 (a) Outline the difference between trait anxiety and state anxiety. [3]

Trait anxiety refers to the personal aspect of anxiety, i.e. part of personality.

State anxiety refers to anxiety created by the situation, i.e. how an individual feels before competing.

1 mark for description of state anxiety.

1 mark for description of trait anxiety.

1 mark for difference between the two.

(b) Give *three* questions from the SCAT (Sport Competitive Anxiety Test). [3]

Questions from SCAT:

- 1 Competing against others is socially enjoyable
- 2 Before I compete I feel uneasy
- 3 Before I compete I worry about not performing well
- 4 I am a good sportsman when I compete
- 5 When I compete, I worry about making mistakes
- 6 Before I compete I am calm
- 7 Setting a goal is important when competing
- 8 Before I compete I get a queasy feeling in my stomach
- 9 Just before competing, I notice my heart beats faster than usual
- 10 I like to compete in games that demand a lot of physical energy
- 11 Before I compete I feel relaxed
- 12 Before I compete I am nervous
- 13 Team sports are more exciting than individual sports
- 14 I get nervous wanting to start the game
- 15 Before I compete I usually get uptight

1 mark for each question correctly identified.

(c) Suggest *two* criticisms of the CSAI-2 (Competitive State Anxiety Inventory–2.) [3]

Most likely:

- Collins (1998) says that it is not a good predictor of performance and that it tells us very little about the processes involved in the relationship between anxiety and performance.
- Craft et al (2003) found only weak correlations between items on the questionnaire measuring cognitive anxiety, somatic anxiety and self confidence.
- Any other appropriate criticism acceptable.

3 marks for two criticisms described with understanding.

2 marks for two criticisms described with limited understanding.

1 mark for one criticism described with limited or no understanding.

Page 55	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

22 From the study by Kajtna et al on Personality in high risk sports athletes:

(a) Briefly describe two dimensions of the Big Five Observer Scale. [3]

Quoting directly from the article:

Energy: dynamic activities, talkativeness, thrill, influence others = high

Acceptability: helping, co-operation, trust, openness = high

Conscientiousness: reliability, accuracy, orderliness, persistent = high

Emotional stability: calm, balanced, in control, stable, relaxed = high

Openness: creativity, originality, curiosity, sensitive, intelligent = high.

3 marks: Correct description of two dimensions with understanding.

2 marks: Correct description of two dimensions with limited understanding.

1 mark: Correct description of one dimension with limited or no understanding.

(b) What were the findings for two dimensions of the Big Five Observer Scale? [3]

Most likely:

It was found that high-risk sports athletes scored highest in **emotional stability**. They were followed by the non-athletes and the lowest scores were achieved by non-risk sports athletes. The same order of groups was shown in **conscientiousness** and **energy**. **Openness** was highest in the non-risk sports athletes, followed by the non-athletes and the lowest score was achieved by the high-risk sports athletes. The differences in **acceptability** were not significant.

3 marks: Correct description of two findings with understanding.

2 marks: Correct description of two findings with limited understanding.

1 mark: Correct description of one findings with limited or no understanding.

(c) Comment on the extent to which this research is reductionist. [3]

Challenging question! Reducing personality factors to just five dimensions can be said to be reductionist.

3 marks: Appropriate comment with understanding of reductionism.

2 marks: Appropriate comment with awareness of reductionism.

1 mark: Comment with vague awareness of reductionism.

Page 56	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section B

- 23 (a) Describe the key study by Waters and Lovell on homefield advantage in English soccer players. [12]

Abstract of study:

The aim of this investigation was to examine the underlying mechanisms of the homefield advantage within professional English football (soccer). Study 1 examined soccer players' retrospective perceptions of the homefield advantage. Results to this first study revealed that the players had significantly higher retrospective perceptions of their confidence, $t(4) = 2.24$, $p < 0.05$, and their positiveness towards the forthcoming game, $t(4) = 2.89$, $p < 0.05$, when playing at home. Study 2 investigated players' psychological and mood states immediately prior to competing at home and away using a shortened Profile of Mood States (POMS) within a semi-structured interview. Quantitative and qualitative measures were used to analyse the data from these interviews. Although no significant differences were found between the players' actual mood states prior to playing at home and away, data did show the players to have significantly higher perceptions of the team's confidence at home games, $t(4) = 2.82$, $p < 0.05$. Qualitative analysis highlighted the following themes as major factors contributing to their strong belief in a homefield advantage: physical and mental preparation, sleep, crowd factors and referee bias.

<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 marks
<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 marks
<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 marks

Page 57	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 58	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

- (b) Evaluate the key study by Waters and Lovell on homefield advantage in English soccer players. [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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 59	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is adequate.</p>	7–9 marks
<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. Quality of written communication is good but evaluation is lacking in detail. Understanding and usage of psychological concepts, issues, and approaches is poor.</p>	4–6 marks
<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 marks
No or irrelevant answer.	0 mark

Page 60	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

24 (a) Describe the role of attributions, self confidence and learned helplessness in sport. [12]

Overview: What motivates a sports person to win? What motivates them? Theories of motivation need to be considered along with how motivation can be measured. More specifically, what does a sportsperson believe the cause of his/her success or failure to be; will his/her attribution boost self confidence or will it lead to learned helplessness?

Research: Attributions: (Weiner, 1972; McAuley, 1992)

Applications:

- Self confidence (Vealey, 1986)
- Learned helplessness (Dweck, 1978)
- More detail to be added

<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 marks
<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 marks
<p>Quality of description and depth of knowledge is competent. Description of knowledge (theories/studies) is often accurate and 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 marks
<p>Quality of description and depth of knowledge is poor. Description of knowledge (theories/studies) is mainly inaccurate and lacks coherence and 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 marks
No or irrelevant answer.	0 mark

Page 61	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Evaluate the role of attributions, self confidence and learned helplessness in sport. [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 and reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness and application to real life.

<p>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 summarise 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.</p>	13–16 marks
<p>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 and 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.</p>	10–12 marks

Page 62	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

<p>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.</p>	7–9 marks
<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 marks
<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 marks
No or irrelevant answer.	0 mark

Page 63	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

Section C

25 You are a sports psychologist and you have been invited to give advice to a team who has the worst record for aggressive behaviour and players being sent off in the entire league.

(a) Using your knowledge of psychology, suggest a strategy for reducing aggression in sports team players. [12]

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.

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 .	7–8 marks
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 .	5–6 marks
Suggestion is largely appropriate to the question and based largely on psychological knowledge. Description of applied knowledge is often accurate and generally coherent, but lacks detail . Understanding (such as elaboration, use of example, quality of description) is reasonable .	3–4 marks
Suggestion is mainly inappropriate to the question and vaguely based on psychological knowledge. Description of applied knowledge is mainly inaccurate and lacks coherence and detail . Understanding (such as elaboration, use of example, quality of description) is poor .	1–2 marks
No or irrelevant answer.	0 marks

Page 64	Mark Scheme: Teachers' version	Syllabus	Paper
	Pre-U – May/June 2010	9773	03

(b) Explain the evidence on which your strategy is based.

[16]

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)**.

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 marks
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 marks
Quality of explanation and depth of argument is poor. Description of knowledge is often accurate and 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 marks
No or irrelevant answer.	0 marks