

# Specimen Paper Answers

Cambridge  
International  
AS & A Level

## Cambridge International AS & A Level Psychology

### 9990

For examination from 2018

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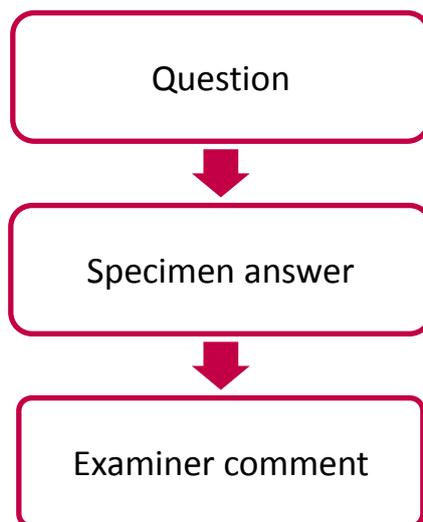
## Introduction

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The main aim of this booklet is to exemplify standards for those teaching Cambridge International AS and A Level Psychology (9990), and to show examples of high grade answers.

This booklet contains example answers to the 2018 Specimen Papers 1, 2, 3 and 4, which have been marked by a Cambridge examiner. Each response is accompanied by a brief commentary explaining the strengths and weaknesses of the answers.

The following format for each paper has been adopted:



Each question is followed by an example of a high grade answer with an examiner comment on performance. Comments are given to indicate where and why marks were awarded, and how additional marks could have been obtained. In this way, it is possible to understand what candidates have done to gain their marks and what they still have to do to improve their grades.

The mark schemes for the Specimen Papers are available on our Teacher Support at <https://teachers.cie.org.uk>

## Assessment at a glance

For Cambridge International AS and A Level Psychology, candidates:

- take Papers 1 and 2 only (for the Cambridge International AS Level qualification)
- or
- follow a staged assessment route by taking Papers 1 and 2 (for Cambridge International AS Level qualification) in one examination series, then Papers 3 and 4 (for the Cambridge International A Level qualification) in a later examination series
- or
- take Papers 1, 2, 3 and 4 in the same examination series, leading to the full Cambridge International A Level.

Component	Weighting	
	AS Level	A Level
<p><b>Paper 1</b> <b>Approaches, issues and debates</b> <span style="float: right;"><b>1 hour 30 minutes</b></span></p> <p>Candidates answer <b>all</b> questions. Short answer questions and an essay question, based on core studies. Candidates answer each question in the spaces provided on the question paper. 60 marks</p>	50%	25%
<p><b>Paper 2</b> <b>Research methods</b> <span style="float: right;"><b>1 hour 30 minutes</b></span></p> <p>Candidates answer <b>all</b> questions. Section A: Short answer questions, some based on the cores studies (22 marks). Section B: Scenario-based questions (24 marks). Section C: A design-based question in the spaces provided on the question paper (14 marks) 60 marks</p>	50%	25%
<p><b>Paper 3</b> <b>Specialist options: theory</b> <span style="float: right;"><b>1 hour 30 minutes</b></span></p> <p>Candidates answer <b>two</b> questions from <b>two</b> specialist options. Each specialist option is out of 30 marks. Question 1: The question is divided into two parts (12 marks). Question 2: Structured essay-based question divided into two parts (18 marks). 60 marks</p>	-	25%
<p><b>Paper 4</b> <b>Specialist options: application</b> <span style="float: right;"><b>1 hour 30 minutes</b></span></p> <p>Candidates answer questions from <b>two</b> specialist options. Section A: Candidates answer <b>two</b> questions from a choice of four (30 marks). Each question is based on stimulus material and is divided into four parts. Section B: Candidates answer <b>one</b> design-based question from a choice of four (18 marks). Each question is divided into two parts. Section C: Candidates answer <b>one</b> essay question from a choice of four (12 marks).</p>	-	25%

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## Paper 1 Approaches, Issues and Debates

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Answer **all** questions.

### Questions 1–9

#### Specimen answers

1. State **one** aim from the study by Dement and Kleitman (sleep and dreams). [1]

*An aim of Dement and Kleitman's study was to investigate if dreaming occurs more often in REM sleep than non REM sleep.*

2. Identify which **one** of the following statements is **not** true of Dement and Kleitman's observations of REM sleep. [1]

Eye movements are more frequent in dreams about distant objects.

People may make movements, e.g. foot twitches, while dreaming.

The sleeper's eyes move in REM sleep.

There are usually several REM sleep periods per night.

3. From the study by Laney et al. (false memory):

- a) Explain why the study was carried out. [2]

*The study was carried out to investigate the impact of positive false memories could have impact as previous research on rich false memories had only tested negative or neutral events. Laney et al were also interested in whether these positive false memories could have healthy consequences.*

- b) Describe what the participants were told about the purpose of the study before it began. [2]

*The participants were told that they would be completing a series of questionnaires to study the relationship between food preferences and personality. They were not told anything about false memories.*

- c) Explain why the participants were **not** told that the study was about false memories when they arrived at the laboratory. [3]

*Participants were not told anything about false memories to reduce the likelihood of demand characteristics. Therefore participants would be more accurate in their reports about liking asparagus as they would be unaware of the true aims of the study increasing the validity of reports.*

- 4) The study by Baron-Cohen et al. (eyes test) used adult participants, although similar studies have used children.

- a) Describe **one methodological** problem that could arise if child participants were used in this study. [2]

*A methodological issue with using children as participants is that they could misunderstand the words used in the complex mental state condition. The validity of the study would be affected as differences would be based on comprehension rather than autism.*

- b) Explain **one** useful application of the findings, if child participants were used in this study. [2]

*If child participants were used misunderstanding within questions could be identified and then changed to making testing for Autism more accurate.*

- 5) a) Describe the conclusions from the study by Bandura et al. (aggression). [3]

*Bandura et al. discovered that boys are more likely to imitate physical aggression seen in a male role model. Also, more generally, watching a model being aggressive can produce levels of aggression in the observer. Finally, boys are more likely to imitate a model that is of the same-sex compared to a girl.*

- b) Explain **two** ways in which the learning approach is different from the social approach. Use the study by Bandura et al. as an example of the learning approach. [4]

*The learning approach is focused on how individuals acquire behaviours whereas the social approach investigates how groups react to a given situation. Bandura et al investigated whether individuals would imitate an aggressive role model whereas Zimbardo et al were interested in whether a group of participants would act in given roles. The learning approach tends to use laboratory experiments to collect information. For example, in Bandura there were several groups of children exposed to either a same or opposite sex model who was/was not being aggressive. Standardised procedures and controls like matching the levels of aggression pre-study show that it is experimental. However, social approach studies tend to conduct research 'in the field'*

*or use questionnaires to gain attitudes about topics. Therefore, the approaches use different research methods.*

- 6) a) Describe **one** aim from the study by Saavedra and Silverman (button phobia). [2]

*Saavedra and Silverman's study aimed to treat the button phobia of a young boy by reducing the responses of disgust and fear.*

- b) Explain how **two** results from the study by Saavedra and Silverman relate to the aim you have described in part (a). [4]

*The boy was taught to identify and dispute irrational thoughts through cognitive restructuring which meant that he progressed from large to smaller buttons to wearing buttons. The boy's phobia of buttons was also reduced by changing to imagery sessions from behavioural exposure tasks.*

- 7) Studies in cognitive psychology could be used to help workers doing repetitive jobs who find it hard to concentrate.

Describe how the results of the study by Andrade (doodling) could be applied to help with this problem. [4]

*Andrade's results suggest that workers with repetitive jobs who find it hard to concentrate should perform an undemanding task, such as doodling, whilst they work. She found that those individuals who doodled recalled more correct monitored information (names), which would increase the performance of workers in their job. Participants also recalled more incidental information (places), which could mean workers are capable of gaining additional information that might prevent mistakes in their work. If workers doodled whilst they worked on repetitive tasks it would reduce the amount of daydreaming that might happen at work.*

- 8) According to Milgram, his study on obedience produced **two** surprising findings.

Describe **both** of these surprising findings. [4]

*Milgram was surprised about the number of participants who obeyed the researcher with all 40 participants administering 300 volts. Before conducting the experiment there was a general feeling amongst researchers that very few participants would administer this level of electric shock. A second surprising effect was the tension and emotional strain displayed by the participants. In the study participants were observed to sweat, tremble and stutter, which suggests that cultural factors are not significant in obedience.*

- 9) The study by Canli et al. used a brain scan.

Explain why brain scans are used in the biological approach to psychology. Use an example in your answer. [4]

*Brain scans, such as functional Magnetic Resonance Imaging, have been used to investigate the role of different regions of the brain. They record the brain activity in a non-invasive manner by detecting changes when oxygen is released. In the study by Canli et al. participants saw neutral and negative scenes. The activity of the amygdala and results from self-reports of experiences were recorded. A higher degree of activity in the left amygdala during encoding was predictive of recall only when scenes were emotionally intense. The results of the study suggest that the amygdala has a role in registering emotional experiences.*

## Examiner comment (Questions 1-9)

### Question 1

The answer clearly states an aim of the Dement and Kleitman study, showing sound subject knowledge.

**Mark awarded = 1 out of 1**

### Question 2

The candidate has selected the correct response.

**Mark awarded = 1 out of 1**

### Question 3a

The response is very thorough and clearly outlines why the study took place. The clarity means that this answer is considered a full explanation.

**Mark awarded = 2 out of 2**

### Question 3b

Both marks are gained within the first sentence as it covers the key points outlined in the mark scheme. As in this example, candidates can gain two marks for one sentence if it contains the necessary information.

**Mark awarded = 2 out of 2**

### Question 3c

The first sentence clearly identifies that the reduction in demand characteristics is the main reason why participants were not told about the 'false memory' aspect of the study. The second sentence also gains a mark as it clearly outlines what impact this could have had on the study. The mark scheme clearly states that an explanation of demand characteristics would gain the third mark but this answer fails to include this.

**Mark awarded = 2 out of 3**

### Question 4a

This answer clearly identifies a potential problem with using children as participants and then develops this to show what impact this would have on the study.

**Mark awarded = 2 out of 2**

### Question 4b

The candidate does identify a potential useful application for the findings, based on children being used. However, the application is not fully explained. The candidate needed to explain precisely what would be more accurate. With this, the candidate would have gained the second mark.

**Mark awarded = 1 out of 2**

### Question 5a

The candidate has correctly given the conclusions of the Bandura study, as required by the question, thereby gaining three marks.

**Mark awarded = 3 out of 3**

### Question 5b

The candidate highlights an aspect of the learning approach clearly seen in the Bandura study. They then explain the difference between the Bandura study and the study by Zimbardo. Although the latter is not on the syllabus, it still gains credit. However, in general, it is best to compare studies that are on the syllabus.

The second part of the answer also scores full marks as the candidate correctly compares the approaches in terms of their research methods.

**Mark awarded = 4 out of 4**

**Question 6a**

The aim is stated clearly and concisely, demonstrating a confident grasp of subject knowledge.

**Mark awarded = 2 out of 2**

**Question 6b**

This answer scores full marks because the candidate has correctly linked two results to the aim of the study.

**Mark awarded = 4 out of 4**

**Question 7**

The mark scheme breaks this down so that two marks are awarded for the results and two marks for the application of the study. The two marks for the results are given here as the candidate has noted that the 'doodlers' performed better in both the names and places recall tasks. The two marks for understanding the application of the study are also awarded here as the candidate gives a reasoned answer as to why doing an undemanding task could benefit people who have repetitive jobs.

**Mark awarded = 4 out of 4**

**Question 8**

The candidate fully explains both surprising findings, so scores full marks.

**Mark awarded = 4 out of 4**

**Question 9**

The candidate fulfils all of the requirements of the mark scheme and so scores full marks. They identify a use for an fMRI and then include clear examples from the study by Canli et al.

**Mark awarded = 4 out of 4**

## Questions 10–11

10) From the study by Piliavin et al. (subway Samaritans):

a) Outline **two** aims of the study. [4]

*Piliavin et al. examined whether the nature of illness would affect helping behaviour. In one condition the 'victim' appeared drunk smelling of alcohol and in the other condition the 'victim' appeared sober and carried a black cane.*

*An additional aim of the study was to examine whether the race of the victim had an impact. In the study three of the 'victims' were white and one was black.*

b) Discuss at least **two** strengths and **two** weaknesses of the study. [8]

*The study by Piliavin et al. was conducted in the field on express trains of the New York Subway meaning that it is high in ecological validity as the setting is realistic. A further strength is that behaviours of bystanders were unobtrusively observed by the female confederates and therefore the aim of the study would not be obvious to the participants making increasing the internal validity of the findings and reducing the likelihood of demand characteristics from the participants.*

*However, the study was reliant on the behaviour of 'victim' being convincing and typical of the conditions. The behaviours of this confederate may have varied in each trial and impacted the likelihood of helping behaviour from the passengers or them being suspicious of the events on the train. Furthermore, the study was conducted in New York as so the results may reflect cultural bias. The likelihood of altruistic behaviour may be higher in collectivist cultures as there is a greater emphasis on everyone being successful and so the results of the study are difficult to generalise.*

## Examiner comment (Question 10)

### Question 10a

The first sentence clearly states an aim of the study. In the second sentence, the candidate attempts to clarify this by explaining how it was achieved. More clarity is needed here as this sentence makes it appear that the effects of alcohol were the central comparison in the study. This aim scores 1 out of 2. The second aim is clear and concise, with an example from the study, and so scores 2 out of 2.

**Mark awarded = 3 out of 4**

### Question 10b

The candidate covers the requirements of the question by giving two strengths and two weaknesses. The first strength is briefly outlined but does contain correct information about the potential ecological validity of the study. The second strength and two weaknesses are very well explained and clearly linked to the study by Piliavin. Overall, this answer meets the criteria for Level 4, but, owing to the lack of fullness in describing the first strength, the overall score is 7.

**Mark awarded = 7 out of 8**

11) Evaluate the study by Schachter and Singer (two factors in emotion). [10]

Schachter and Singer created two conditions that were distinct from each other as euphoria and anger are opposing emotional states. In doing so they were to directly manipulate emotional responses and to make recording the imitation of these states by the participant easily observable. However, problem with the design of this study is that participants' responses may vary due to the nature of being injected. Although they agreed to the injection the variations in anxiety or being comfortable with injections might have impacted the recording of euphoria or aggression and affected the internal validity of the study. Furthermore, the manipulation of 'cognitions available' to the participant was affected by the confederate and is reliant on them being convincing in their portrayal of the emotions in the two conditions. If the confederate was unconvincing then the participant's responses on the questionnaire may be invalid and the result of demand characteristics. However, participants were asked about their suspicions by Schachter and Singer with 11 subjects' data being discarded suggesting that the impact of this was minimised.

Schachter and Singer conducted their study with 184 participants which is a large sample enabling it to be more representative of responses to physiological arousal and cognitive explanations. However, the generalisability of the sample was limited as all the participants were male and the likelihood of being influenced by the confederate may be different in females. The sample was also introductory psychology students who volunteered as part of the requirements of their course. They may be more likely to show demand characteristics and try to work out the aims of the research and have an awareness of the expectations within research.

The main ethical issue of this study is deception as the participants were told that they were participating in a study investigating the effect of vitamin supplements on vision. The participants in the adrenaline misinformed and adrenaline ignorant conditions were also not all fully informed about the side effects of adrenaline. For some participants this may have made them feel concerned or frightened when they began to experience side effects. However, the researchers were justified in their decisions to deceive the participants in order to objectively test their aims and it would have been impossible to do so unless they were deceived.

## Examiner comment

### Question 11

The evaluation is comprehensive in this response even though it only features weaknesses. The points have been carefully selected and each one is well presented with a logical and thorough argument. The analysis is clear and each evaluative point has a clear conclusion. Given the demands of an examination and the time restraints, candidates could not be expected to write much more and, as a result, this is awarded maximum marks in Level 4.

**Mark awarded = 10 out of 10**

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## Paper 2 Research Methods

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### Section A

Answer **all** questions in this section.

#### Specimen answers

1. A hypothesis in a study says 'Emotions will differ following exposure to a happy or an angry stooge'.

a) Is this a directional (one-tailed) hypothesis or a non-directional (two-tailed) hypothesis?

Include a reason for your answer. [1]

*It is a non-directional or two-tailed hypothesis as it just states that there will be a difference but not the impact of the happy or angry stooge.*

b) Write a **null** hypothesis that could be used with the hypothesis given above. [2]

*There will be no difference in emotion following exposure to a happy or angry stooge.*

2. State **two** ways in which the research methods of an experiment and a case study are **different**. [2]

*A case study focuses on one individual or event whereas an experiment has a range of participants. In an experiment specific dependent variables are directly measured whereas in a case study a variety of sources of data are collected.*

3. Explain **one** advantage of the sampling method used in the study by Milgram (obedience). [2]

*An advantage of a volunteer sample is that the researcher can access a variety of participants. In Milgram's case this enabled him to access participants from different occupational backgrounds so the data would have been more generalisable.*

4. From the study by Baron-Cohen et al. (eyes test):

a) Describe **two** ways in which the study was valid. [4]

*This study was valid as control groups were used. One group was adults who were assumed to have intelligence in the normal range and no mental health problems (the effects of autism were controlled for). They were compared to the Tourette's condition. The study was high in internal validity as the participants responded to forced choices so researchers were able to directly measure responses to emotion.*

- b) Describe **one** way in which the study was **not** valid. [2]

*The study by Baron-Cohen et al. lacks population validity because in the eyes test the eyes are fixed but in real life eyes move and give us more information about emotion. The number of female participants is difficult to generalise from as there were 3 in the Autism condition and 2 in the Tourette's condition.*

5. Bandura et al. (aggression) calculated the mean number of aggressive acts in each condition.

- a) Explain how the mean of a data set is calculated. [2]

*The mean is calculated by adding up all the scores in a data set and dividing it by the number of scores given.*

- b) Identify an alternative measure of central tendency that Bandura et al. could have used. [1]

*Mode.*

6. Define qualitative and quantitative data using examples. [6]

*Qualitative data is written data or descriptive data which can be gathered from interviews or unstructured observations. In Saavedra and Silverman's study they recorded descriptions of the boy's behaviours.*

*Quantitative data is numerical data which can be gained from a Likert scale or closed questions on a questionnaire. Schachter and Singer used a Likert scale as part of a self-report rating scale to assess participants' views on anger and euphoria.*

Examiner comment

Section A

**Question 1a**

This is correct. The candidate could have saved time by not repeating both 'non-directional' and 'two-tailed'. The concept of non-directional is explained in relation to the question and it is clear because the candidate has added 'but not the impact of the happy or angry stooge'. Without this, the answer would have needed to say what the difference applied to (i.e. emotions).

**Mark awarded = 1 out of 1**

**Question 1b**

This is correct. The candidate has identified both the independent variable (happy or angry stooge) and the dependent variable (emotion).

**Mark awarded = 2 out of 2**

**Question 2**

Both differences are correct. The first difference identified refers to the number of participants used and the second comments on the data collected. The second point could have been the difference in range of methods used (one in an experiment, often several in a case study).

**Mark awarded = 2 out of 2**

**Question 3**

This answer identifies an advantage (the variety of participants) and then explains how the variety of their occupational backgrounds meant that the results would have been generalisable. The last part of this answer is crucial as it is the explanation of the advantage.

**Mark awarded = 2 out of 2**

**Question 4a**

In the first part of their answer, the candidate has identified an appropriate feature that increases validity (the control group of adults with normal IQ and no mental health issues) and explained how this control group increases validity, i.e. what they were controlling for. However, it appears that the candidate has not read the correct Baron-Cohen et al (2001) paper, as there was no group with Tourette's Syndrome in this study, thus the next part of the answer is incorrect. In the final comment, an appropriate point has been identified, i.e. that forced choice questions can contribute to validity. However, forced choice questions could also reduce validity, so it needs to be clear how they would help in this case in order to earn the second mark. Forced choice questions are no more 'direct' than any other type of question, so this justification cannot earn marks. Instead, the candidate might have suggested that such questions are more objective or easier to analyse than open questions, or could have described the forced choice questions in detail.

**Mark awarded = 2 out of 4**

**Question 4b**

Here the candidate earns two marks for their comment about the unrealistic nature of fixed eyes in the test compared to dynamic eyes in real life. Although only asked for 'one way', the candidate goes on to give a second suggestion, but, as with question 4a, this is not related to the correct paper, so would not have earned marks if it had been their only comment.

**Mark awarded = 2 out of 2**

**Question 5a**

This is correct.

**Mark awarded = 2 out of 2**

**Question 5b**

This is correct. An alternative answer could have been the 'median'.

**Mark awarded = 1 out of 1**

**Question 6**

The definition and comment for qualitative data are both correct. The example from the core study is sufficiently detailed to earn two marks. The definition for quantitative data is also correct. The example is appropriate, although the scales were not Likert scales (as they were questions rather than statements), but a comment such as 'Schachter and Singer used a Likert scale as part of a self-report rating scale to access participants' views on anger and euphoria' is sufficient to earn two marks, so this can be ignored.

**Mark awarded = 6 out of 6**

## Section B

Answer **all** questions in this section.

### Specimen answers

7. Alice works in a sleep laboratory. She is looking at how much people move in different stages of sleep.

a) Outline **one** way that Alice could tell whether her participants are dreaming. [2]

*Alice could use eye movement patterns to see if the participants are dreaming. In REM sleep the eyes move rapidly and when dreaming there is an association between eye movements and dream content.*

b) Alice is measuring movement by counting the number of times the participant rolls over in bed.

Explain **one** problem with the way Alice is measuring movement. [2]

*The way Alice is measuring movement does not reflect the individual differences in the movements participants may display in their sleep. As it is only focused on one movement, rolling over, other movements may not be recorded or missed.*

c) Suggest an alternative way for Alice to measure the movement of her sleeping participants. [2]

*Alice could use an observation schedule with more detailed and a greater variety of movements to reflect the different ways participants may move whilst they sleep.*

8. Dr Brown was testing false memories in a class of students. He used half the class as participants in his study. The other half provided true stories about events at school. He used two of these true stories and one false story. Each participant read all three stories. Dr Brown told them the events were from their school days and that he was studying friendships. One month later he asked them to recall the events.

a) Identify the dependent variable in this experiment and suggest how it could be operationalised. [2]

*The dependent variable is the recall of the events. It could be operationalised by recording the number of correct facts the participants identify from each story.*

b) Name the ethical guidelines that Dr Brown broke by telling participants he was investigating school friendships. [1]

*Deception*

c) Explain why it was important that Dr Brown broke the ethical guideline that you have identified in part (b). [2]

*It is important that Dr Brown broke the guidelines on deception as if participants knew the study was about false memories demand characteristics could be created.*

- d) Describe **one** advantage of using a repeated measures design in Dr Brown's experiment. [2]

*An advantage of repeated measures design is that participants are tested against themselves. This reduces the impact of individual differences such as memory ability.*

- e) Explain why waiting a month before testing the participants could be a problem. [3]

*The delay between presenting the information and testing could make it difficult to conclude cause and effect. During the month the students will be exposed to different life events which might create anxiety and affect their ability to recall the information.*

9. Two students, Hilja and Sakri, are investigating the exercise people take. They are using a questionnaire with 10 questions. Both students are worried about reliability in their investigation.

- a) Write **one** open and **one** closed question that Hilja and Sakri could ask. [2]

*Closed question – How many times a month do you exercise?  
Open question – Why do you think that some individuals exercise more than others?*

- b) Suggest how Hilja can test whether all the closed questions in the questionnaire are consistent. [3]

*Hilja could ensure that all the questions have the same reading age to ensure they can be understood by all the participants within the sampling frame. Hilja could give participants a Likert scale to respond with questions and therefore participants would be consistent in their responses to different questions.*

- c) Sakri thinks that the way he scores participants' answers may differ from the way Hilja scores them. Suggest how Sakri can test whether he and Hilja are reliable in their scoring of the questionnaire. [3]

*Sakri could create criteria for scoring participants responses and discuss it with Hilja to ensure that they have the same understanding of the elements of the criteria. They could also use inter-rater reliability and both score a number of the same responses to ensure that they are both giving similar scores.*

Examiner comment

Section B

**Question 7a**

The answer starts well, suggesting the use of eye movement patterns, and makes the observation that the eyes move rapidly, and when dreaming. However, the next part of the answer ‘... there is an association between eye movements and dream content’ is irrelevant. To earn the second mark, the candidate needed to explain how they could assess whether participants were dreaming. For example, they could have described how they would observe or measure the eye movements.

**Mark awarded = 1 out of 2**

**Question 7b**

This answer identifies the problem (that it does not reflect individual differences) and explains why (because it only considers one movement).

**Mark awarded = 2 out of 2**

**Question 7c**

This answer identifies an alternative way to measure movements (observation schedule) and offers detail (greater variety of movements). Nevertheless, the answer could have been improved by giving an example of alternative movements that could be observed, or how the observations would be carried out.

**Mark awarded = 2 out of 2**

**Question 8a**

The identification of the dependent variable is correct. The operationalisation is quite simple but would be effective, so earns credit.

**Mark awarded = 2 out of 2**

**Question 8b**

Correct. A single word answer here is acceptable.

**Mark awarded = 1 out of 1**

**Question 8c**

Stating that ‘if participants were informed that the study was investigating false memories’ explains the idea that the participants should not know the aim of the study. The reference to this creating demand characteristics is therefore appropriate elaboration.

**Mark awarded = 2 out of 2**

**Question 8d**

The candidate identifies an appropriate advantage, namely reducing individual differences, and relates this to the study with reference to memory ability.

**Mark awarded = 2 out of 2**

**Question 8e**

This is a well-developed answer which identifies a problem – exposure to different life events – and explains that it could affect participants’ ability to recall, thus making conclusions about cause and effect difficult to draw.

**Mark awarded = 3 out of 3**

**Question 9a**

Both questions are correct. Ideally, the closed question would offer a range of options, e.g. 0-1, 2-5, 6-20, 20+.

**Mark awarded = 2 out of 2**

**Question 9b**

A suggestion is offered (that all questions are understandable) and an example is given (having the same reading age). The remainder of the answer is not a way to test consistency, but a suggestion for the method, so is not creditworthy. Note also that 'sampling frame' is not a term required by the syllabus.

**Mark awarded = 2 out of 3**

**Question 9c**

The candidate has given two different suggestions. The first relates to the idea of creating operational definitions and discussing these. The second identifies inter-rater reliability as important and suggests testing this by getting both learners to score a number of the same responses and, importantly, crucially, to make sure their scores are similar. There is thus sufficient for three marks. Note, however, that if the question had asked 'Suggest one way that Sakri can test whether he and Hilja are reliable in their scoring of the questionnaire', this response would only have earned two of the three available marks.

**Mark awarded = 3 out of 3**

## Section C

Answer **all** questions in this section.

### Specimen answers

10. Cathy has a younger sister who is scared of shoe laces. Cathy has decided to watch her sister in the school playground. She wants to observe how her sister responds to other people. She decides to conduct a controlled observation using two of her friends, one wearing shoes with laces and one wearing shoes without laces. She has asked her friends to walk around the playground separately.

a) Describe how Cathy could conduct her observation of her sister's responses. [10]

The observation will be conducted during break time at school as this will be more naturalistic for Cathy's sister and increases the validity of the observation. Cathy will conduct an observation a week before to gather a range of emotional responses that she can see in the playground which will be used in the observation schedule. Cathy will record her sister's behaviour using the schedule created which will include a range of emotional reactions that will reflect the previous observation and responses to a feared object. Her sister's responses will be recorded every 20 seconds during the 10 minute observation. Any responses that are appropriate will be tallied during this time for example, both scared and upset could be selected if appropriate.

Her friends will be instructed to walk around the playground in different directions with one going clockwise around the playground and one anti-clockwise. Each of Cathy's friends will directly interact with her sister once in the 10 minute observation by asking her 'How is your day going?' and then 'Do you like my new shoes?' which will ensure that her sister sees the shoes. One friend will ask Cathy's sister 3 minutes into the observation and the other 7 minutes into the observation. The delay between interactions is to prevent Cathy's sister from changing her behaviour or showing demand characteristics. The friend with shoe laces will go second so that if Cathy's sister reacts negatively the observation can be stopped.

Cathy would ensure that the only difference between the shoes her friends wear is the laces. The shoes will be the same colour, black, and style, trainers and will be clearly visible to her sister and so will be worn with a skirt and tights.

Cathy will be a non-participant observer and stand next to the teacher in the playground who will be supervising the children. The teacher will be briefed about the nature of the study and the possible reactions of Cathy's sister in case intervention is needed. Cathy will ensure that she can see her sister's reactions but is at a distance from where her sister is in the playground.

*Cathy's sister will not be informed that she is being observed and if other children ask Cathy what she is doing she will inform them that the teacher has asked her to write down the different activities that happen in playground at break time. Cathy's mum will be informed of the nature of the study and give consent. The head teacher of the school and the teacher on break time duty will also be informed about the nature and aims of the study.*

*In order to protect Cathy's sister from harm if she gets too distressed by the presence of the shoe laces for example, crying hysterically or having difficulties catching her breath, then the friend will immediately walk away and the teacher on duty will ensure that her sister is ok.*

- b)** Identify **one** possible weakness/limitation with the procedure you have described in your answer to part **(a)** and suggest how your study might be done differently to overcome the problem. [4]

*One limitation is that Cathy's sister may be reacting different because she feels more comfortable with one friend. To resolve this issue the same friend could be used on two different days so that the friend is not a confounding variable in the study.*

### Examiner comment

#### Question 10a

The response covers the major points. 'What' is covered by reference to a pilot study being carried out to identify a range of emotional responses. However, some examples could have been given here, including suggestions of definitions could have been suggested – although 'scared' and 'upset' are mentioned in passing. 'How' is well discussed, with details of the timing and tallying procedures as well as clear reference to the way the observation could be set up using friends. These details also cover 'where' and 'who'. Reference to controls and non-participant observation demonstrate accurate use of concepts and terminology. There is also appropriate reference to ethical issues, although this could have been a little shorter to allow time for inclusion of operational definitions.

**Mark awarded = 9 out of 10**

#### Question 10b

An appropriate limitation is identified (different levels of comfort with the two friends) and why this could be a problem (it might cause her to react differently to them). The solution (to use the same friend on different days) is appropriate and detailed.

**Mark awarded = 4 out of 4**

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## Paper 3 Specialist Options: Theory

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Answer questions from **two** different options. Within each chosen section, answer **all** of the questions

### Specimen answers

#### Psychology and Abnormality

1. a) What do Gottesman and Shields (1972) mean by the term 'genetic explanation of schizophrenia'? [2]

*Gottesman and Shields are suggesting that schizophrenia is an inherited trait based on genotypes. If schizophrenia can be explained by genetic explanations then monozygotic twins will have a higher concordance rate of schizophrenia than dizygotic twins.*

- b) Describe the cognitive explanation of schizophrenia, as outlined by Frith (1992). [4]

*Frith's cognitive model can be used to explain positive symptoms experienced by schizophrenics such as hallucinations. Cognitive explanations of schizophrenia suggest that these individuals are unable to self-monitor their own thoughts appropriately. They experience three cognitive deficits: an inability to generate willed action, an inability to monitor willed action and an inability to monitor the beliefs and intention of others. As a result of this schizophrenics incorrectly attribute thought to someone or something in the external world communicating with them rather than themselves.*

- c) Compare the cognitive explanation of schizophrenia with **one** other explanation of schizophrenia. [6]

*Cognitive explanations are able to explain why schizophrenics experience both positive and negative symptoms whereas biochemical explanations such as the dopamine hypothesis only satisfactorily explain positive symptoms. Avolition and alogia may have developed as a consequence of their inability to self-monitor and delusions of being controlled may be the result of external attributions. Excess dopamine fails to explain why schizophrenics might have a reduction in normal functioning.*

*Cognitive explanations are based on nurture factors and the development of thought patterns and schema during childhood. As such the attributions to the external world are likely to be shown before the development of schizophrenic symptoms and may be part of their development. The dopamine hypothesis is based on nature and that an excessive of dopamine and greater neural activity is responsible for schizophrenic symptoms. Dopamine agonists such as amphetamines that act on dopamine replicate symptoms such as hallucinations when taken.*

Both explanations are reductionist as they focus on specific factors and do not acknowledge the complexity of human behaviour. Neither cognitive or biochemical explanations are able to explain the variation of symptoms experienced by schizophrenics as one patient may experience delusions and hallucinations whilst another may experience disorganised thinking and avolition.

2. a) Describe techniques for treating and managing impulse control disorders and non-substance addictive disorder. [8]

Cognitive Behavioural Therapies are based on the identifying and challenging maladaptive behaviours such as impulses and addictive behaviours. The client identifies the thought processes that lead up to the addictive behaviour in order to prevent these behaviours from occurring and replacing these with more constructive behaviours. One technique in CBT is covert sensitisation where the aim is for the person to associate negative and unpleasant thoughts with the addicted behaviours. The client would imagine carrying out the undesirable behaviour such as pathological gambling or hair pulling. When the image is clear in their mind the client would imagine a negative consequence associated with the behaviour such as losing all their money or bald patches. If these negative associations are continued then the behaviours are associated with negative consequences rather than positive ones.

Another type of CBT is imaginal desensitisation which gets the client to associate relaxation techniques in order to reduce the likelihood of the impulses being carried out and increases them being controlled. The client works with the therapist to create a hierarchy of four or five situations associated with their impulse. With gambling it might be different situations in which they think about gambling or events that they might gamble on. These would be ranked from lowest to highest in terms of how great the impulse is, the anxiety created and how difficult it would be to leave the situation. The client is taught relaxation techniques such as tensing and relaxing different muscles until they become automatic. Following this the client imagines each step of the hierarchy starting at the lowest and applied the relaxation techniques until it can be dealt with in a relaxed manner. When the client feels comfortable and ready to move on the next situation is then imagined.

- b) Evaluate techniques for treating and managing impulse control disorders and non-substance addictive disorder, including a discussion of usefulness of different approaches. [10]

The use of CBT with patients with impulse control disorders and non-substance addictive disorder have been significant in reducing the severity of symptoms and preventing relapse. Glover (2011) found covert sensitisation to be effective with a client with kleptomania. When followed up 19 months after treatment there was only a single lapse of stealing behaviour a huge reduction in impulses from the daily compulsion over the previous 14 years. The client also reported improvements in socialisation and self-esteem. Blaszczynski and Nower (2003) examined the effectiveness of imaginal desensitisation on problem gamblers. They found that this technique decreased the anxiety experienced with urges and improved abilities to control impulses. These results were found in follow up after 1 year and 5 years suggesting that cognitive therapies can provide lasting successes. Although there is an increasing body of evidence that CBT is effective it is unclear which aspects are intrinsic in successful outcomes. Tolchard and Battersby (1996) conducted a study to unravel the important components of the exposure model. In this study, in-vivo exposure, imaginal exposure and imaginal desensitisation were tested on a number of subjects from a gambling treatment service. The two forms of exposure had better outcomes, with in-vivo exposure showing a more rapid reduction in symptoms than imaginal exposure or systematic desensitisation. The relaxation component of imaginal desensitisation appeared to add nothing extra.

However, there are many different approaches within CBT and treatment programmes vary significant in their duration, aims and structure. As there is no unified approach to conducting CBT comparisons across studies are problematic and unreliable and may account for the variations in effectiveness. One study conducted by Tolchard and Battersby (2013) did use unified response across participants who were involved in a five stage process involving stimulus control, imaginal and in-vivo exposure, cognitive re-appraisal, relapse prevention and follow-up for up to a year. Tolchard and Battersby found that CBT was effective with an overall recovery rate of 68% as determined by participants and measurements by problem statements. However, attrition rates during the study were significant at 30% suggest that the completion of CBT requires high levels of commitment that are unable to sustain due to the nature of impulses which may be more significant in the effectiveness of CBT.

Cognitive behavioural therapies are dependent on the client's willingness to engage with the therapy and ability to change. It may not be effective for clients whose impulses and addictive disorders that have been prevalent for a long period of time or who are entrenched in their behaviours and are resistant to change in other areas of their lives. CBT is often ineffective or deemed inappropriate to use with older clients as their

ability to change is more limited. As such biochemical therapies may be more appropriate for some patients; Kim et al (2001) conducted a study comparing Naltrexone with a placebo. They found that 75% of subjects in the drug condition were rated as much or very much improved compared to 24% of those in the placebo condition.

An additional problem with assessing the effectiveness of CBT in treating non-substance addictive disorder and impulse control disorder is comorbidity. As individuals are likely to experience other psychopathologies such as depression and anxiety it may be significant in accounting for variations in the effectiveness of treatments.

An additional problem with outcome studies is that it often unclear whether participants are receiving other forms of help at the same time or whether they have experienced natural recovery where they recovery without any intervention. Slutske (2006) found that a substantial portion of individuals with a history of pathological gambling eventually recover, most without formal treatment. Among individuals with a lifetime history of pathological gambling, 36%–39% did not experience any gambling-related problems in the past year and only 7%–12% had ever sought either formal treatment or attended meetings of Gamblers Anonymous. About one-third of the individuals with pathological gambling disorder were characterized by natural recovery. As a result the implementation of forced treatment and the suggestion that intervention is required may in itself have negative consequences for the individual.

## Examiner comment

### Question 1a

This is a detailed explanation of the term 'genetic explanation of schizophrenia' as outlined by Gottesman and Shields. A clear example is given to back up the definition.

**Mark awarded = 2 out of 2**

### Question 1b

A clear description of the cognitive explanation of schizophrenia is given that shows good understanding. To improve, the candidate could have given a general explanation first before going into the example of hallucinations. The general explanation is, however, implied later on in the answer, hence full marks are awarded.

**Mark awarded = 4 out of 4**

### Question 1c

This is an excellent discussion with three clear comparisons, which include good examples to back up each point. The mark scheme only requires two comparisons so this candidate could have omitted one and still achieved full marks. However, many candidates like to include an 'extra' point just in case one of the other points is incorrect.

**Mark awarded = 6 out of 6**

### Question 2a

The description of the two cognitive techniques is accurate and detailed as well as clearly organised. The examples of gambling addiction and hair-pulling are also good and show the candidate's clear understanding of the therapies. To improve, the candidate needs to include a brief description of a biochemical therapy for a fully comprehensive response.

**Mark awarded = 7 out of 8**

### Question 2b

An impressive response with a range of evidence provided to support each evaluative point. The answer is appropriately structured with the candidate considering each issue in turn. The candidate begins with the issue of effectiveness (usefulness) and this is a good approach as the question specifically asks for this to be addressed. The candidate has now ensured they have met the minimum requirements of the question before moving onto other points. The only area for improvement would be for the candidate to evaluate the biochemical therapy which should have been included in question 2a.

**Mark awarded = 10 out of 10**

**Psychology and Consumer Behaviour**

3. a) Explain what is meant by the term 'choice blindness'. [2]

*Johansson and Hall define choice blindness as when individuals fail to notice mismatches between their intentions and outcomes. It is when we are presented with something different from what we really want but will defend this choice if required to.*

b) Outline the findings of the study into advertising and false memory by Braun-LaTour et al. (2004). [4]

*Braun-La Tour et al found that there no significant differences between the true and false advert in their first experiment suggesting that false information does not change consumer views on a given brand. Some of the participants were quick to identify the false aspect of the advert recognising that Bugsy Bunny was not a Disney character.*

*In their second experiment the researchers found that pictures had a superior effect in creating false memories (48%) than verbal presentation (17%) or both pictures and verbal presentation (32%). These findings suggest that adverts can create false memories for consumers.*

c) Discuss the practical applications of conducting research into advertising and false memory. [6]

*There are practical applications for creating false memories from advertising to increase the investment in a given product and create positive responses to an advert, product or brand. False memories through post-experience information are significant when based on childhood experiences and trigger episodic memories. These create specific responses where the individual is likely to 'feel like a kid again' and increases the likelihood of personal recollection. When the individual becomes personally involved it is significant in triggering positive reflections and reports about the product.*

*Research by Braun-LaTour et al also suggests that consumer's process information from adverts on different levels. The level of processing required by the consumer may be dependent on what product is being advertised and whether false information is likely to be detected. If the advertiser wants the consumer to have a deeper level of processing and think about the decisions being made they might be better to advertise on the radio presenting information in a verbal manner only. Furthermore, given that pictures acted as a primer for false memories and cues for the consumer these would need to be selected based on the given target audience particularly if companies have changed their logos or how associated figures are displayed.*

4. a) Describe what psychologists have discovered about advertising applications. [8]

Children have significant recognition of logos and even very young children, 3 years old, can understand and remember the advertising that they see. Although the recognition rates were positively correlated to the age of the participant with higher recognition rates in 6 year old children. Fischer et al (1991) found that approximately 30% of 3 year old children correctly matched 'Old Joe' with a picture of a cigarette company compared to 91.3% of 6 year old children. There were significant recognition rates in all categories of logos, children brands, cigarette brands and adult brands. These findings have been used by advertising companies in the form of pester power in that the recognition of products and the association between logos and products is targeted at children for specific products and they in convince their parents to purchase particular brands of goods. Furthermore, children are referred to as consumers in training and have become a significant market given that initial exposure to specific brands can also lead to preferences in later life.

Snyder and DeBono (1985) also suggest that factors within the consumer may be significant in affecting consumer behaviour. They examined the responses of participants who were assessed on whether they had high or low levels of self-monitoring in their responses to two different advertising strategies either based on image or quality. Snyder and DeBono found that high self-monitoring individuals responded positively to image orientated adverts and were willing to pay more for and more willing to try products that were based on this advertising strategy. Low self-monitoring participants responded better to quality orientated adverts and were more willing to pay more for and try products that represented quality. Their research suggests that the nature of the individual has a significant impact on consumer behaviour.

- b) Evaluate what psychologists have discovered about advertising applications, including a discussion on cultural bias. [10]

A significant issue with research into advertising is that it has been conducted in Western individualist cultures. In fact both Fischer et al's and Snyder and DeBono's research were conducted in America which heavily advertises in the media and materialistic goods are used by many to create and present a specific individual image. In non-Western and collectivist cultures there may be less influence of advertising on purchasing decisions made by individuals. Furthermore, the influence of advertising techniques might be less significant or indeed alternative techniques may be more influential in these cultures. Pine and Nash (2002) examined the effects of advertising in children in the UK and Sweden by looking at children's letters to Father Christmas written in schools. Sweden has banned the direct advertising to children and so they are less likely to be socialised as consumers. They found that children in the UK who watched more commercial T.V. requested a greater number of items and more branded items than children who watched less T.V. Children in Sweden asked for significantly fewer items than children in the UK. Pine and Nash's study suggests that cultural exposure to advertising may be a significant factor in the recall of products and the impact of advertising on consumer behaviour.

The selection of the samples in both studies is also a potential barrier to the generalisability of their findings. Fischer et al used convenience/opportunity sampling and therefore was not representative of children from a range of ethnic and socioeconomic backgrounds. Given the prevalence of parent and sibling smoking in particular cultures and social classes this might have influenced the recognition of products in the cigarette brands and adult brand conditions. However, the direct influence of this ethnocentric sampling is unclear. Furthermore, the use of children as participants means that they may have limited verbal skills and so may have difficulty in explaining the concepts that they understood. Their responses may also be misinterpreted by researchers or might be more easily led by the language chosen by researchers. Snyder and DeBono used undergraduates when they conducted their research. Given that participants are likely to be the same age and intelligence this excludes the impact of these participant variables on the effects of advertising. Furthermore, participants were given course credits for taking part in the research, which might increase their likelihood to show demand characteristics or impact on their right to withdraw from the study as they might be concerned about the impact of doing so on their academic performance.

Both factors have had a significant impact on the role of advertising in impacting consumer behaviour and are therefore useful pieces of research. The recognition of the significance of advertising effects in contributing to adolescent smoking and the findings

of Fischer et al's study supports that the early recognition of particular brands by non-targeted individuals is significant. Although these are correlational links between exposure to cigarette brands and adolescent smoking and extraneous variables such as parental smoking or peer smoking might be more significant in smoking behaviour and brand of cigarettes selected. Subsequently, the advertisement of tobacco products by direct advertising, promoting of tobacco products, and indirect advertising, brand-stretching, was banned in the UK in 2002 in order to reduce the prevalence of adolescent smoking.

Despite Snyder and DeBono's study findings they are primarily based on self-reports about participants willingness to purchase products and what they would be willing to pay for them. However, there is a clear distinction between willingness and actually buying a given product and therefore the impact of self-monitoring may only be an indicator of consumer behaviour rather than an impact buying. However, the role of self-monitoring in decision-making have led many companies to present products to activate different route of persuasion in that Amazon presents both the quantity and quality of reviews about a given product.

## Examiner comment

### Question 3a

A clear and detailed description of the term 'choice blindness'. An example would have clarified the definition but the response is sufficient for full marks.

**Mark awarded = 2 out of 2**

### Question 3b

An excellent, detailed response with percentage figures given for the results. The candidate has also clearly described the two parts of the study, which has helped them to achieve full marks.

**Mark awarded = 4 out of 4**

### Question 3c

Two very detailed and highly effective practical applications are given by the candidate. Both are very well explained and linked to appropriate evidence from the syllabus.

**Mark awarded = 6 out of 6**

### Question 4a

The response is accurate, coherent and detailed. Both the Fischer et al. and the Snyder and DeBono studies are clearly described and linked to this question on advertising applications. As both studies are described in a fair amount of detail, it was acceptable for the candidate to use just two of the three studies from the syllabus. However, if the candidate had given less detail, they would have needed to include the third study (in this instance, Kohli et al.) to achieve a top band mark.

**Mark awarded = 8 out of 8**

### Question 4b

Excellent, highly effective and detailed evaluation of the research. The candidate begins by addressing the issue of cultural bias, thereby ensuring that they have met the minimum requirements of the question. They then go on to discuss issues with the sample, self-report and practical applications. This is a particularly effective discussion as it provides a good balanced argument which recognises that research can have both strengths and weaknesses even when discussing one issue in particular.

**Mark awarded = 10 out of 10**

## Psychology and Health

5. a) What does Melzack (1965) mean by the term 'gate control theory'? [2]

The term 'gate control theory' suggests that with pain stimulation small nerve fibres become active. These in turn activate the projection neurons and block the inhibitory interneuron. As it is blocked the gate is opened and the output of the projection neuron connects with the brain.

b) Describe the paediatric pain questionnaire proposed by Varni and Thompson (1976). [4]

Varni and Thompson's paediatric pain questionnaire is designed to comprehensively assess the pain experienced in children with chronic pain. One aspect of the questionnaire asks children to circle words that best describe their pain and then select three to describe the pain that they are currently experiencing.

Another aspect of the PPQ has children select colours for different levels of pain ranging from 'no pain, no hurt' to 'severe pain, a lot of hurt' and then asks children to colour in a picture of a body using the different colours selected. The activity allows the location and severity of the pain to be assessed.

c) Discuss the weaknesses of pain measures for children. [6]

Children have limited verbal skills and may not be able to explain the pain they are experiencing accurately to medical staff. Some of the words or phrases used by be misunderstood by children or may be unknown to them limiting the ability to reliably assess them. As the reporting of pain is mainly via self-report techniques misunderstanding or using loaded words or phrases will have a significant impact of the validity of assessments made. Reports made also be made by or gathered from parents or guardians rather the child directly as they are more able to communicate with staff. However, this may lead to additional inaccuracies in the reports made or not fully reflect the pain being experienced by the child.

Specifically the measurement of the intensity of pain is problematic with children and this is critical in the assessment to know whether interventions or pain management should be used. As children may have limited experiences with pain the result may be over or under reporting of the pain being currently experience. If children have experiences with chronic pain then they might under report for fear of the consequences of pain management treatments and may lead to abnormal perceptions of pain. Professionals may also be reluctant to report severe pain in children due to the long term effects and impact of physiological treatments of pain.

## 6. a) Describe what psychologists have discovered about the sources of stress. [8]

Psychologists have discovered physiological sources of stress that are based on an adaptive fight or flight response. When immediate or acute stressors are experienced the Autonomic Nervous System (ANS) is aroused. An example of these stressors could include frightening experiences such as burglary or attack. A key part of our body's response is the sympathomedullary pathway which is made up of the sympathetic nervous system (SNS) and the sympathetic adrenal medullary system (SAM). SNS releases noradrenaline to activate the internal organs increasing heart rate and blood pressure. SAM is activated at the same time where the adrenal medulla releases adrenaline into the bloodstream which boosts the supply of oxygen and glucose in the brain and muscles and suppresses other processes in the body such as digestion.

Another source of stress is life events which are major events that involve change for an individual. Holmes and Rahe (1967) developed the Social Readjustment Rating Scale to establish how stressful different life events are. They gathered data from 400 participants who were asked to score each life event based on the amount of readjustment it would require. A number was required from each individual of the readjustment required from an average person with marriage used a baseline and given the figure of 50. The scores given by the participants were averaged producing Life Change Units with death of a spouse given the highest score (100) and Christmas at the other end being given a score of 12. Holmes and Rahe's scale suggests that life events are an important source of stress particularly if these events occur together in someone's life as they ask respondents to consider events over the last year.

## b) Evaluate what psychologists have discovered about the sources of stress, including a discussion of individual and situational explanations. [10]

An individual explanation of the sources of stress is supported by research that shows personality may be a significant factor in whether sources of stress have a negative impact on an individual. Friedman and Rosenman (1959) found that the impact of stress measured by frequency of Coronary Heart Disease (CHD) was more likely in individuals identify as having Type A behaviour than those who had Type B behaviour. Friedman and Rosenman conducted interviews with approximately 3000 men to assess their personality including questions on how they responded to everyday pressures. The interview was conducted in a manner to encourage a reaction from the participant for example, the interviewer speaking slowly. Participants defined as Type A were competitive, impatient, hostile and aggressive where as those characterised as Type B were patient, relaxed and easy going. Friedman and Rosenman followed up over 8 year later and found that Type A individuals were more likely to have experienced heart attacks, recurrent heart attacks and fatal heart attacks suggesting that their

personality was a determining factor in the negative effects on their health and this therefore supports the individual explanation of the sources of stress.

However, situational factors may also be significant sources of stress particularly the role of workload. Johansson et al (1978) looked at the impact of attention and responsibility on workplace stress. They examined sawyers in a Swedish saw mill who were either in the high-risk group which was defined as having repetitive tasks; a continuous pace and a sense of responsibility for the whole company as falling behind would slow the whole company down. In the low-risk group were individuals who had less repetitive jobs and more flexibility. Johansson et al found that the high-risk group had higher levels of adrenaline in their urine even on their days off and higher rates of illness. The findings of their research suggest that situational factors such as the nature of the workload an individual experiences is an additional source of stress and impacts their ability to manage stress.

Research into the sources of stress has had an impact on the development of ways to manage the impact of stress and this therefore makes the research into the sources of stress useful. Meichenbaum developed Stress Inoculation Training (SIT) as a specific form of Cognitive Behavioural Therapy to reduce the impact of stress. SIT involves the client conceptualising the sources of their stress, acquire skills to manage their stress and rehearsing them with the help of the therapist and apply these skills in different situations. Many professional sportspeople have successfully used SIT to improve their performance including Ryan Babel who played football for Liverpool.

A major flaw in research conducting into sources of stress is that they are based on self-report techniques particularly questionnaires such as the life events questionnaire. Questionnaires are likely to be effected by social desirability where participants give responses based on social norms and so their responses are less likely to be valid. In addition to this, participants unable to clarify the meaning or phrasing of questions within the questionnaire and so may not give valid responses. However, the lack of a researcher being present may be beneficial for examining stress as individuals are less likely to feel judged by their responses and so may open up about this sensitive subject matter.

## Examiner comment

### Question 5a

An excellent response that clearly defines 'gate control theory'. A number of appropriate terms are used.

**Mark awarded = 2 out of 2**

### Question 5b

A detailed answer that describes the pain questionnaire by Varni and Thompson. It explains both why and how this is used by children.

**Mark awarded = 4 out of 4**

### Question 5c

Two appropriate weaknesses are discussed in detail. Good examples are given about how children might misunderstand the pain questionnaire or find it difficult to communicate the intensity of pain. To improve their answer, the candidate should refer specifically to a pain questionnaire such as the one described in question 5b.

**Mark awarded = 5 out of 6**

### Question 6a

The description of the two sources of stress is accurate, coherent and detailed. Although the ANS and the life events scale are not sources of stress, the candidate has linked them to the question by explaining what could cause the ANS to activate, and mentioned certain life events that could lead to stress, as identified by Holmes and Rahe. To improve, the candidate could link their answer more closely to the sources of stress and/or include a description of another source of stress, such as work.

**Mark awarded = 7 out of 8**

### Question 6b

This is an excellent and coherently structured response that covers a good range of issues. The response also uses the evidence from the topic area of stress very effectively. There is very good analysis and a well-balanced argument throughout.

**Mark awarded = 10 out of 10**

## Psychology and Organisations

7. a) Explain what is meant by 'the leader-member exchange model' (Danserau, 1994) [2]

*The leader-member exchange model is when leaders maintain their role through a series of exchange agreements with members depending on whether they are in the in group or out group. If in the former then they will get more attention and praise whilst the latter feel demotivated.*

b) Describe **one** way of measuring leadership. [4]

*One way of measuring leadership is the Leadership Practices Inventory designed by Kouzes and Posner (1987) which assesses the effectiveness of leaders and their subordinates' level of commitment, engagement and satisfaction. The LPI is a questionnaire with thirty behavioral statements with six for each of the five practices of exemplary leadership; modeling the way, inspiring a shared vision, challenging processes, enabling others to act and encouraging others. The questionnaire is completed by the individual in a self-assessment and by five to ten other individuals who assess the extent to which they think that leader engages in each behavior.*

c) Discuss **one** strength and **one** weakness of the way of measuring leadership that you described in part (b). [6]

*One strength of the LPI is that it can complete online which will anonymise the responses of the individuals. This should allow both the leader and other members of the organisation to be honest in their responses and make the assessment of leadership more valid. They will not be worried that their manager or the members of the board will see their responses, removing any potential risk to their job or opportunities for promotion if feedback is not positive. By completing the questionnaire online it will also be quicker for the responses to be gathered and collected and so the additional individuals will be more likely to complete it.*

*Social desirability may be a problem with the LPI as the other individuals completing the questionnaire are likely to be known by the leader. Although it is anonymous, the leader may be able to work out who has answered each questionnaire, especially if the team is small. As such they may not be valid in their responses in order to impress or avoid consequences from completing the questionnaire. Moreover, the statements and scales may be interpreted in different ways by different respondents and so may be inconsistent.*

## 8. a) Describe what psychologists have discovered about temporal conditions of work environments. [8]

Shift work often disrupts an individual's natural diurnal circadian rhythm and therefore can have a negative impact on their health. Psychological research has investigated the relationship between specific medical disorders and working at night or on shift systems. One impact on health is the likelihood of developing ulcers. Segawa et al conducted a study of nearly 12,000 employees in factories, banks and schools in Japan. They found that the prevalence of gastric ulcers was 2.38% in shift workers as compared with 1.03% in day workers. Furthermore, duodenal ulcers were more likely in shift workers at 1.37% and 0.69% for day workers. The risk of these ulcers was doubled in shift workers compared with day workers. An additional disease that is more likely in shift workers is coronary heart disease (CHD). Knutsson et al (1986) conducted a cohort study on 394 shift workers and 110 day workers at a paper mill. They found a dose-response relationship between years of shift work and CHD suggesting the amount, intensity and duration of shift work are significant increasing the risks of CHD for individuals.

The impact of shift work on mental health has also been examined in psychological research. Bara and Arber (2005) examined longitudinal data from the British Household Panel Survey, a nationally representative sample of private households in Britain. They found that undertaking shift work for 4+ years was associated with poor mental health for men and women, even after adjusting for the confounding factors. Therefore, shift work had a negative long term impact on mental health, which varied according to the duration of exposure, type of shift work and gender.

Gold et al (1992) conducted a study to examine the impact of shift work on accidents. They used a self-administered questionnaire to gather information on the quality of sleep of nurses, the use of alcohol, the use of sleeping aids and the experiences of different types of accidents that had occurred due to reports of sleepiness these included medication errors and on the job personal injuries. Gold et al found that sleep deprivation and the disruption of circadian rhythms that were experienced during rotating shifts were associated with frequent lapses of attention and increased reaction time, leading to increased error rates on performance tasks. Moreover, the likelihood of reporting any accident or error was twice as high for rotators as for day/evening nurses. Individuals on rotating shifts were more than twice as likely to report near-miss accidents.

- b) Evaluate what psychologists have discovered about temporal conditions of work environments, including a discussion of the use of quantitative and qualitative data. [10]

The use of quantitative data in psychological research about temporal conditions of work are useful in understanding the frequency, prevalence and comparative risks of health conditions experienced by individuals who undertake shift work. However, the use of qualitative data enables researchers to discuss the ongoing issues within longitudinal research that individuals and the conditions of accidents or near-misses that participants may have experienced. Giving participants the opportunity to respond to open ended questions providing qualitative data will enable them to accurately describe their experiences and explore more sensitive aspects of research into temporal conditions such as accidents and errors.

There are some variations in the findings of shift work namely whether they result in disruption to circadian rhythms. Stoynev and Minkova found that forward rapidly rotating shift did not significantly alter circadian rhythms and did not result in the desynchronization of bodily responses. Furthermore, research into the impact of shift work on gastric ulcers are dated and do not acknowledge more recent medical techniques that are now used to check the diagnosis of ulcers such as endoscopies. The research also fails to discuss that some ulcers have no obvious symptoms and so the prevalence of ulcers both within shift workers and the general population may be more common.

Much of the psychological research is based on longitudinal research where generalisations may be affected by cohort effects. It may be that specific generations are more likely to experience mental health problems or CHD due to environmental factors or social phenomenon such as a recession that might cause more stress in the population as a whole. Another methodological issue with longitudinal research are attrition rates in that significant sub-groups of the sample may not complete the study and the absence of their experiences may skew the findings of the study.

The research by Gold et al. research is based on nurses completing questionnaires which may be affected by social desirability. If the nurses had made errors they may be looking for an external source of blame or something that reduce their sense of responsibility over the consequences and so may be more likely to sight sleepiness as a cause of their error. The nurses may also be more likely to report sleep deprivation, accidents and near-misses in order to influence social policies on working conditions and access more favourable working or pay conditions.

The impact of shift work may be correlational rather than causal as the temporal conditions of their work may be exacerbating existing conditions or the environmental

factor in triggering pre-disposed rather than being the cause of the disorder. Furthermore, Shift work is self-selective and participants may have specific participant variables or personalities that make them more likely to seek out careers that specifically involve shift work. Finally additional variables may influence the individuals who are specific shift patterns. In the case of Gold et al's study the option of not rotating and not working the night shift was dependent on seniority. Therefore those individuals who were on rotating or night shifter had often been at the hospital for a year or less and so their lack of experience of familiarity with procedures may have contributed to their likelihood of making errors.

### Examiner comment

#### Question 7a

A clear definition of 'the leader-member exchange model' with reference to the purpose of exchanges and how the leader behaves differently with certain employees depending on whether they are in the 'in group' or the 'out group'.

**Mark awarded = 2 out of 2**

#### Question 7b

An excellent description of a way of measuring leadership. Concise but including a lot of detail about the Leadership Practices Inventory as developed by Kouzes and Posner.

**Mark awarded = 4 out of 4**

#### Question 7c

The candidate shows a clear understanding of both a strength and a weakness of the LPI and this is evident in their response, which makes good use of appropriate psychological terminology as well as some clear examples.

**Mark awarded = 6 out of 6**

#### Question 8a

An excellent and very detailed response to this question on the temporal conditions of the work environment. The candidate has included very good and accurate details on a number of pieces of research and has also made sure their response stays focused on the work environment rather than looking at schools, hospitals, etc.

**Mark awarded = 8 out of 8**

#### Question 8b

This is a very good wide-ranging response. The candidate includes a discussion of the use of quantitative and qualitative data at the start of their answer. This is good exam technique as it ensures the candidate has addressed the minimum requirements of the question straightaway. They then go on to consider a number of other relevant points. Their consideration of the variation in the findings as well as the effect of social desirability are the strongest elements, as they are clearly based on evidence. Although this is a full mark response, in order to improve the candidate should clearly refer to appropriate evidence for all of their evaluation points.

**Mark awarded = 10 out of 10**

## Paper 4 Specialist Options: Application

Answer **two** questions in Section A.  
 Answer **one** question in Section B.  
 Answer **one** question in Section C.

### Section A

You must answer two questions from this section. Answer all the parts for the two questions you choose.

#### Specimen answers

#### Psychology and abnormality

1. A study (Ost, 1991) identified the causes of blood and injection phobias. The following table shows the percentages of participants in each category.

Cause of phobia	Blood phobia	Injection phobia
Conditioning	49.4%	57.1%
Vicarious experiences	25.9%	21.4%
Instruction/information	7.4%	5.4%
No recall	17.3%	16.1%

- a) Give **one** conclusion that can be drawn from this table. [2]

*Conditioning is the most commonly identified cause of phobias of both blood and injections. It was identified as the cause of blood phobias in 49.4% of participants and 57.1% of participants in injection phobias.*

- b) Give **two** advantages of the treatment of applied tension for blood phobia. [4]

*An advantage of applied tension is that it has been found to be more effective in treating blood phobia than other treatments. Ost et al (1991) found that applied tension was 90% successful in reducing symptoms compared to tension only techniques which were 80% effective and exposure only techniques that were 40% effective.*

*Another advantage is that individuals learn a 'coping skill' which could be applied to other areas of their lives that are stressful or promote anxiety.*

- c) Fear of blood and injections are common phobias.

Describe how a different phobia can be explained through conditioning. [4]

*Conditioning suggests that we learn our phobias due to a direct negative experience with a particular stimulus. Classical conditioning is that we learn through association. We have unconditioned responses, such as fear, to specific events. However, with a*

phobia these responses have become conditioned to a specific conditioned stimulus. If an individual has arachnophobia they have developed a conditioned response of fear to the conditioned stimulus, a spider, because of a negative experience such as being bitten by a spider or a spider landing on their face. The arachnophobia is maintained based on operant conditioning and reinforcement as every time the individual sees a spider the negative response of fear and anxiety occurs.

- d) Discuss the evidence suggesting that phobias are learned. You should consider both sides of the argument and include a conclusion. [5]

There is research evidence that supports that specific phobias can be learnt and conditioned in individuals. Watson and Rayner (1920) conducted a study on Little Albert who initially displayed no fear to white rabbits and animals. Watson and Rayner then taught Albert to fear this stimulus as the animals were presented with a loud bang to initiate the unconditional response of fear. They continued to present the unconditioned stimulus until Albert reacted fearfully without the presence of the loud noise. Furthermore, individuals who experience a phobia often recall a specific traumatic incident when their phobia was started.

However, Watson and Rayner's study is idiographic as it is only based on one individual and cannot be generalised to all phobias and individuals. It also does not explain why some individuals have traumatic experiences but do not develop a phobia of the object of that experience or indeed why some individuals do not have a direct traumatic experience but have a phobia.

Alternatively the evolutionary approach suggests that phobias may be the result of natural selection and are adaptive behaviours that ensure our survival. Seligman (1970) suggests that phobias may be the result of biological preparedness for example; arachnophobia would prevent humans from being bitten by venomous spiders that might kill us.

It is most likely that phobias are the result of a combination of factors and that we have predisposition towards phobias to specific stimuli but other factors such as whether we experience trauma with that object or we have a more anxious temperament are also needed for the phobia to develop.

## Examiner comment

### Question 1a

This question requires one conclusion to be drawn from a table of data. The candidate draws an appropriate conclusion when stating that 'conditioning is the most commonly identified cause of both blood and injection phobias'. This part of the answer scores one mark and is good because it is a conclusion rather than a mere statement of findings or results. The second available mark is scored when the candidate refers to actual percentages from the table to support the conclusion drawn.

**Mark awarded = 2 out of 2**

### Question 1b

This question requires two advantages and the mark scheme allocates two marks per advantage. In questions of this type, candidates should always make each advantage distinct. The candidate gives two advantages, both clearly identified. The first advantage is that applied tension has been found to be more effective in treating blood phobia than other techniques. This scores one mark. The candidate includes excellent support for this advantage and this scores the second available mark. The second advantage given is that using applied tension means that individuals learn a coping skill which can be applied to other stressful things, but there is no elaboration or example for this advantage and so the second mark is not awarded.

**Mark awarded = 3 out of 4**

### Question 1c

The answer begins with an explanation of how a phobia can be learned through classical conditioning, as specifically required by the question. This impressive answer gives the example of arachnophobia and how it can be learned through conditioning. The answer ends with an appropriate comment about operant conditioning. Overall, this is a really good answer worth full marks.

**Mark awarded = 4 out of 4**

### Question 1d

This question requires discussion but only five marks are allocated to the answer. Candidates should be mindful of this and spend an amount of time equivalent to five marks answering it. The mark scheme allocates one mark for each argument in favour or against (or supporting evidence). This means that each argument can be relatively brief. One mark is always allocated for an appropriate conclusion. This answer begins with details of the study by Watson and Rayner and one mark is scored for evidence supporting the learning approach. A second mark is scored when the candidate writes that individuals who experience a phobia often recall a specific traumatic incident. The candidate then considers the other side of the argument by making two relevant points: firstly that Watson only studied one individual which means that the findings of the study cannot be generalised, and secondly, that some people don't have direct traumatic experience but still have a phobia. At this point the answer has scored four marks. The answer continues by presenting the evolutionary approach to phobias and within this paragraph the candidate can score two marks. Where candidates provide more answers than needed, the whole answer is marked and the answers scoring the highest marks are credited. In this case, all of the answer is correct and the candidate scores four marks. There is an appropriate conclusion which scores one mark.

**Mark awarded = 5 out of 5**

## Psychology and Consumer Behaviour

2. In relation to the participants in their experiment, Braun-LaTour et al. write:

*Sixty-six undergraduates (32 female, 34 male) at a large Northwestern University participated in this experiment for course credit. The average age was 21. Participants were randomly assigned to one of two conditions.*

- a) Outline what Braun-LaTour et al. meant by 'participants were randomly assigned'. [2]

*If participants are randomly assigned they have an equal likelihood of being in either the false advertisement or true advertisement condition.*

- b) Identify **one** strength and **one** weakness of the sample in this study. Give reasons for your answer. [4]

*An advantage of the sample in the Braun-LaTour et al. study is the limited impact of gender as the number of males and females was approximately equal and therefore the results of the study could be generalised to both genders.*

*A weakness of the sample is cultural bias as all the students were from a North-Western university they may be biased towards a susceptibility to believe in the media. Other cultures may be more likely to question the validity of the information given to them in media.*

- c) Describe **two** alternative ways in which a sample for this study could have been gathered. [4]

*The researchers could get a random sample of students from different programmes of study by selecting every hundredth person on the universities college register. The researchers could conduct a volunteer sample by putting an advertisement in several local papers in the North-West area to get a broader age range of participants as this might be a variable that affects how likely participants are to be convinced by the media.*

- d) Discuss the advantages and disadvantages of using students in psychology experiments. You should include a conclusion in your answer. [5]

*An advantage of using students is that they are an accessible and available sample to researchers. This reduces the potential costs of recruiting participants through volunteer sampling techniques. Students are likely to have more available time to participate in research and therefore a greater number of participants could be gathered making them more representative of this target population.*

*Students are often the same age or intellectual ability and this would result in less participant variables between participants and so could be more easily matched in a*

*matched pairs design. Additional information is already held by the university for example, family income or parents' occupation and this could aid the researcher. However, the major limitation of this is that student participants are not representative of wider society and the ability to generalise the findings of research and the impact of consumerist behaviour or the appeal of the aspects of the product may not be reflective of a broader target market.*

*A disadvantage of using students as participants, particularly Psychology students, is that it might be more aware of background or prior research which is likely to affect the outcome. They may also be more suspicious of the brief given by researchers on consumer behaviour and be conscious of the likelihood of an alternative aim of the research. Students may be more compliant as participants and want to impress the researcher which might infringe on their right to withdraw as they may feel that doing so might affect their grade, being liked by the research or their ability to complete a course.*

*The use of students as participants would entirely depend on the nature of the research and the aims it was looking to investigate. If the research was interested in brand recognition in young children then it would not be appropriate however, if it was examining how individuals make decisions on products then it would be acceptable.*

## Examiner comment

### Question 2a

The candidate scores full marks for this answer, even though it is quite brief. Firstly, the candidate knows what random assignment, as shown in the statement is 'an equal likelihood of being in either condition'. Secondly, the candidate relates this to the study in question by mentioning that there is a false advertisement and a true advertisement condition. Another way of scoring the second mark would be to say that participants were randomly assigned to conditions.

**Mark awarded = 2 out of 2**

### Question 2b

This question required one strength and one weakness. Although the candidate used the word 'advantage', this did not matter as the meaning here is the same. For the strength of the sample, the candidate refers to the limited impact of gender because the number of males and females was approximately equal. This comment is correct because the sample consisted of 32 female and 34 male participants. What scored the second available mark was the comment about the results being able to be generalised to both genders. For the weakness, the candidate suggested there may be cultural bias because the sample was drawn from a Northwestern University, where students may be more susceptible to believing the media, whereas other cultures might be different. This is an excellent answer because the candidate addressed the question, explained reasons and provided a contrast.

**Mark awarded = 4 out of 4**

### Question 2c

This question required a description of two alternative ways to gather a sample and two marks were allocated to each. If a candidate provides only one way, a maximum of two marks will apply. This candidate suggested selecting participants using a random sample. This is correct and one mark is scored. The second mark is awarded because the candidate describes how the random sample would be selected (i.e. by systematic random sampling). For the second way, the candidate suggests conducting a volunteer sample (worth one mark). The candidate then explains how that type of sample would be gathered. Overall, this answer is excellent and scores full marks.

**Mark awarded = 4 out of 4**

### Question 2d

In response to this question the candidate has again written quite a detailed answer for the marks allocated. Indeed the answer has additional detail that isn't required and full marks would be scored without it. The first stated advantage is 'that students are an accessible and available sample which reduces potential recruitment costs', which scores one mark. The answer then provides further elaboration which isn't needed, and it is also incorrect when it states that 'a greater number makes a sample more representative', as this is not true. The answer gives a second advantage because participant variables would logically be less among a sample of students. The first disadvantage provided is when the answer states that 'student participants are not representative of the wider society' and some elaboration is provided here. This first disadvantage scores one mark. A second disadvantage provided is that 'psychology students may be more aware of background or prior research which may affect the outcome of the study'. This is appropriate and scores one further mark. The detail in the rest of the disadvantage is impressive and shows good understanding but all this detail can score no more than the one mark allocated. There is an appropriate conclusion which is worth one mark. Overall, this is an excellent answer scoring full marks. However it is far too detailed and candidates should never write too much on any one answer that might lead to them running out of time.

**Mark awarded = 5 out of 5**

## Psychology and Health

### 3. Newspaper headline: patients over-estimate drug treatment for an ulcer.

A study was conducted by Dr Roth in which patients had been prescribed medication for treatment of an ulcer. 89% of patients claimed that they took the pills prescribed, while Dr Roth found that only 47% had actually taken them. Dr Roth suggested that although pill counting is more accurate than patients' estimates, a physiological test is the only accurate measure of patient adherence.

a) Outline **one** physiological measure of patient adherence. [2]

A physiological measure of patient adherence would be a biochemical test such as a blood or urine test. These could be used to measure the levels of chemicals or by products in a patient.

b) Give **two** weaknesses of subjective self-reports to measure adherence. [4]

A weakness of self-reports to measure patient adherence is social desirability as patients are likely to give responses that meet social norms and not admit that they have not complied with their treatment. Another weakness of this measurement is that patients are unreliable in their accounts and may underestimate or overestimate the extent to which they have followed the instructions given or the volume of medication they have taken for example, in relation to pain management.

c) Suggest **two** reasons why physiological tests of adherence are valid. [4]

Physiological tests of adherence are valid as they are objective as they measure a quantifiable outcome and therefore are not based on subjective judgements being made by the patient or medical staff. Physiological tests have concurrent validity in that the same sample can be retested in order to ensure that results are accurate and form the same conclusion about the patients' adherence.

d) Discuss the strengths and weaknesses of using pill counts to measure patient adherence. You should include a conclusion in your answer. [5]

One strength of pill counts is that they are an objective measurement of adherence and do not rely on subjective accounts by the patient. Given that pill counts have a simplistic and fixed procedure they would be easy and inexpensive to conduct. Furthermore, if pill counts are unannounced to the patient then they would provide valid information on whether the patient has taken the appropriate number of pills.

A weakness of pill counts is that the patient may feel embarrassed or as if they are being checked up on if their medication is being recounted. Pill counts only judge whether or not the patient has the correct number of pills remaining however; it does

*not measure whether medication has been taken according to the directions given to the patient. Moreover, it does not explain the reasons why the patient may not have adhered to the medication and therefore is limited in its effectiveness.*

*As pill counts are quick and simple to conduct I think that they would be a useful tool in assessing patient adherence. However, follow-up discussions and questions would need to be used alongside the pill especially if there are discrepancies.*

### Examiner comment

#### Question 3a

The answer begins by rewriting the question, which is not necessary. The comment 'a biochemical test is a blood or urine test' is correct and scores one mark. There needs to be elaboration or example in the answer in order for the second mark to be awarded. In this instance the candidate writes 'used to measure the levels of chemicals or by-products in a patient'. This is correct and is just enough to score the second mark. However, there could be more and better elaboration here, so an example specific to adherence or a reference to a study which used this measure is preferable to ensure full marks.

**Mark awarded = 2 out of 2**

#### Question 3b

This question required two weaknesses and two marks were available for each weakness. Candidates are always advised to make the two weaknesses (or strength/weakness) distinct. The first weakness suggested by the candidate is that patients may give socially desirable answers, that they will not be honest and admit to not taking the medicine. For the second weakness, the candidate suggests that self-reports are unreliable because patients may underestimate or overestimate the amount of medicine they may or may not have taken. Overall, this is a really good answer which shows good understanding of the topic area and answers the question well, so scoring full marks.

**Mark awarded = 4 out of 4**

#### Question 3c

The candidate provides two reasons, as required by the question, although the candidate could have made each more distinct. The first reason is correct, and full marks can be awarded because of the elaboration provided, i.e. the contrast of objective, quantifiable data with subjective judgements. The second reason is also worth two marks because the candidate clearly understands the term validity and relates it to adherence.

**Mark awarded = 4 out of 4**

#### Question 3d

This is another answer where the candidate could have saved time by applying better examination technique. The candidate provides three strengths and three weaknesses when the mark scheme allows for only two of each to receive credit. If three are provided, the Examiner will mark all three and credit the best two. In this case the candidate has provided three equally good answers. The candidate is clearly very knowledgeable about this topic area and uses relevant information when discussing the strengths and weaknesses. There is a conclusion at the end, and the comment about the need for follow-up discussions alongside pill counts is appropriate and shows good understanding.

**Mark awarded = 5 out of 5**

## Psychology and Organisations

4. Mowday et al. devised the Organisational Commitment Questionnaire (OCQ). One question is:  
'I would accept almost any type of job assignment in order to keep working for this organisation.'

Answers scored on a 7-point scale:

strongly disagree  
moderately disagree  
slightly disagree  
neither degree nor agree  
slightly agree  
moderately agree  
strongly agree

- a) Give **one** weakness with the wording of the OCQ question in the study. [2]

*One weakness with the wording of the question is that it is a 'leading question' (as once outlined by Loftus). This means that a particular answer is suggested to the reader. For example, by the statement 'I would accept...' workers much less likely to select disagree statements.*

- b) Give **two** strengths of psychometric tests using the OCQ as an example. [4]

*A strength of a psychometric test is that quantitative data is often used so comparisons can be made across all people taking the test. This question from the OCQ uses a seven-point scale so the overall total from many questions can be compared with the scores of other workers.*

*Another advantage of using psychometric tests is that they make an objective assessment of a potential employees abilities rather than it being based on stereotypes based on their appearance or gender. As a psychometric test the OCQ eliminates any bias an interviewer might have. Scores can be compared where gender, appearance, etc. are irrelevant.*

- c) Suggest how an alternative method to a questionnaire could be used to gather qualitative data. [4]

*An alternative method to gather qualitative data would be a semi-structured interview where the interviewee could be given a scenario to respond to. For example, they could be asked how they would deal with a co-worker who is negative about the company. The interviewer could take notes on the responses given by the individual, such as whether the response was well thought out and whether they illustrated their response with an example. Doing this would not produce numbers, but instead assess the quality of what was said.*

- d) An alternative scale has 6 points, without 'neither disagree nor agree'.

Discuss the advantages and disadvantages of including this point on a scale. You should include a conclusion in your answer. [5]

*An advantage of not including the option of 'neither disagree nor agree' is that the respondent has to be decisive about their view point in this case whether they would accept any type of job. As such the research and company are able to make more conclusive judgements about the respondent.*

*Another advantage is that it forces the person to think about their response before deciding one way or the other rather than just quickly opting out without any thought.*

*A disadvantage of not including the option is that it may be the only option that truly reflects the individuals' viewpoint and therefore the responses given by the individual may be falsely skewed more positively or negatively. It may be more valid to include this option as it is more representative of the possible viewpoints to a given issue.*

*Another disadvantage is that people may opt for the mid-point because it allows them to give socially desirable answers. In the OCQ question they neither agree nor disagree with 'accepting any job'.*

*On balance I think that the questionnaire should include the option to 'neither disagree or agree' as it is a more valid reflection of the reactions of individuals and means that when the respondent does commit to a side that it is more accurate reflection of their views.*

## Examiner comment

### Question 4a

This is an excellent answer because the candidate outlines a possible weakness and uses the OCQ to support the answer. A 'leading' question is an appropriate comment, although candidates do not need to know that this was first proposed by Loftus. The example from the study shows that the candidate has addressed the *in this study* part of the question, which many candidates miss out.

**Mark awarded = 2 out of 2**

### Question 4b

Answers to questions like this should include one strength and one example and then a second strength and a second example. In this answer the candidate does exactly that, showing good technique. The first strength is appropriate and scores one mark. The example which follows is based on the OCQ and the second available mark can be awarded. The second strength is also appropriate because eliminating bias in an interview is a feature of a psychometric test. The example could be a little more detailed, but it is still worth one mark.

**Mark awarded = 4 out of 4**

### Question 4c

This question required candidates to suggest an alternative method to a questionnaire. The candidate suggested not just an interview, but specifically a semi-structured interview, showing good psychological knowledge. The answer had specific detail about how the interview would be used. What is impressive is that the candidate clearly understands what qualitative data is and includes examples, e.g. 'take notes on the responses given by the individual, such as whether the response was well thought-out and whether they illustrated their response with an example' to illustrate. This answer is worth a maximum mark.

**Mark awarded = 4 out of 4**

### Question 4d

The candidate begins by giving a detailed and appropriate advantage that has elaboration and shows good understanding. However, the mark scheme only allows one mark for each advantage and this answer can only score one mark. The candidate's second advantage is correct, and although there is no elaboration, the answer is worth the one mark available.

The candidate provides an excellent disadvantage and again this is detailed and correct. However, again, only one mark can be awarded. The second disadvantage is fine and it too scores one mark. The question states advantages (plural) and disadvantages (plural) and so there must always be two of each to score all the available marks. The conclusion is appropriate and scores the allocated one mark. It is important to contrast the response to question 3d with this one because that answer had too many advantages and disadvantages whereas this is just right. Attention to examination technique, i.e. two advantages and disadvantages would maximise marks and balance the time allocated to each answer.

**Mark awarded = 5 out of 5**

## Section B

You must answer **one** question from this section.

### Specimen answers

#### Psychology and Abnormality

5. a) Design a study to investigate whether obsessive-compulsive disorder (OCD) is more effectively treated by psychological or biomedical techniques. [10]

*In order to investigate the effectiveness of biomedical treatments of OCD I would conduct a field experiment where participants would be allocated to either the treatment condition taking Selective Serotonin Reuptake Inhibitors (SSRIs) or the control group where participants will take a placebo. Participants will continue to conduct their lives as normally and will be assessed as outpatients. The study will be conducted over 6 weeks with 4 weeks taking the medication and 2 weeks without medication. In addition to this patients will be followed-up with 6 months after participating in the study. At the start of the study and then each week during the study participants will be given a questionnaire to assess the severity of their impulses and compulsions, their ability to participate in everyday activities and their general health to investigate the frequency of side effects being experienced. Each question will be scored on a scale of 1 to 10 with 1 being no impulses/no symptoms/not affecting this activity and 10 being very strong impulses/severe symptoms/greatly affects this activity. It will be a double-blind study where neither the participant nor the primary researchers are aware of which condition a particular participant has been allocated to. I will use an independent groups design and randomly allocate participants to either the treatment group or the control group.*

*All the pills given to participants will be the same shape, size and colour and in prescription bottles. The participants will be given questionnaires when collecting their prescription for the next week. Participants will be seen individually with participants in different conditions being seen on separate days.*

*Participants will be selected using an opportunity sample as medical professionals from GP surgeries, psychologists and community worker will be contacted directly and informed about the study. They will be asked to give an information leaflet to newly diagnosed individuals with OCD within two local authorities, Cambridge and Oxford. The participants will then be asked if they wish to take part in the study.*

*Participants will be informed in the information leaflet and at the start of the study that they could be allocated to either the treatment condition or the control group and informed that they can withdraw from the study at any point. They will be debriefed about their condition after the 6 month follow-up and consent will be sought to*

include the data in the results. If participants experience significant side effects or their symptoms become too severe then they will be withdrawn from the study. In this case alternative therapeutic techniques will be offered to the participant.

The results from the initial questionnaire will be used as the participants' baseline data. An average of the scores for statements on each category (severity of symptoms, ability to participate in everyday activities and general health) will be taken. Each of the scores for these categories will be taken from the baseline score to assess whether improvements are being made or not.

b) Explain the psychological and methodological evidence on which your study is based. [8]

I have included a placebo condition as the control group in my study in order to assess whether patients are likely to experience natural recovery and to compare the effectiveness of SSRIs against a no treatment option. The inclusion of placebos is common within biomedical research for example; Soomro et al (2008) conducted a review of 17 studies investigating the effectiveness of SSRIs against placebos.

The standardisation of the pills across the two conditions is to reduce the likelihood of demand characteristics and the placebo effect. DeCraen et al (1996) found that the colour of medication has an impact of what participants think the drug is having an effect on and how effective a drug is seen to be. Significantly they found that red, yellow and orange medications are associated with a stimulant effect but blue and green medication is associated with a tranquilising effect. In having the medication the same shape and colour it will limit the impact of this on the results of the study. Participants from each condition will be seen on different days to also reduce the likelihood of demand characteristics as if they were able to discuss their symptoms or nature of their pills they might identify that they are in separate conditions. I have included 2 stages of follow-up in order to assess whether the use of SSRIs would affect relapse and recurrence of OCD. Moreover, the later follow-up will see if there is a longer term reduction of symptoms from the treatment.

I have selected participants who have recently been diagnosed with OCD to limit the impact of prior treatments on the effectiveness of SSRIs as if participants have had other therapies they may be more severe in their symptoms or their previous experiences may limit the long term effectiveness of SSRIs. As participants are unlikely to have unsuccessful attempts to control their OCD they might be more open and responsive to biomedical treatments. They are also less likely to identify if they are in the control group having no prior experience of additional features of the medication such as taste or have experienced side effects.

## Examiner comment

### Question 5a

This question required candidates to ‘design a study’ without stating a specific method to be used. For any question in which this is the case, candidates are free to choose whatever method they consider to be appropriate. Examiners are looking for evidence of two main things: firstly, general features which can apply to any research method, such as the sample and sampling technique, type(s) of data that might be gathered and how that data might be analysed, ethical issues, reliability and validity. Secondly, features specific to the chosen method. For example, if an experiment is chosen, Examiners are looking for the type of experiment, the IV, the DV, appropriate controls and the experimental design (repeated, independent or matched). This is an extensive list and candidates do not need to include all of these features to score full marks.

In response to this question, the candidate chooses to apply a field experiment. The candidate explains the participants are either in the SSRI group or in a control group, but the candidate does not identify this as the independent variable. The candidate explains that the study will be conducted over a six-week period with a six-month follow up. Assessing effectiveness over a period of time is appropriate. The candidate explains that the questionnaire will be given at the start of the study and at the end of each week. The questionnaire will use a 10-point scale, but the candidate does not identify this as a closed questionnaire, or that it will gather quantitative data. Appropriate terminology is included when the candidate identifies and explains how it will be a double-blind study. The candidate also correctly identifies that the design will be independent groups. In the next paragraph, the candidate suggests an appropriate control but does not identify it as a control. The candidate writes about many appropriate design features, but doesn’t label them, perhaps because the candidate does not know the appropriate terminology. An Examiner can never assume what the candidate doesn’t write. In the next paragraph, the candidate writes appropriately about the sampling technique. In the paragraph after this, the candidate correctly explains informed consent, the right to withdraw and debriefing. In the final paragraph, the candidate comments on how data from the questionnaires will be analysed.

Overall, this is a really good answer because what is written is accurate, is coherent throughout and includes ample detail. The design is appropriate to investigate the question and the candidate has applied a range of relevant methodological design features. Although the IV and DV are not identified, the candidate still offers a range of relevant design features, including field experiment, double-blind study, independent groups design, opportunity sample, ethics and data analysis. This answer is worth the maximum mark.

**Mark awarded = 10 out of 10**

### Question 5b

The candidate begins with an explanation of why a placebo condition was used and this is supported with an appropriate piece of research which nicely links methodological and psychological evidence. In the next paragraph, the candidate explains why the size, shape and colour of the pills was standardised and again refers to an appropriate piece of psychological research to support the methodological decision. The candidate goes on to explain two further methodological decisions. In the final paragraph, the candidate focuses on the selection of participants and justifies a choice of sample in question part (a). In relation to the mark scheme, this answer is level 3 and the level descriptors are as follows: description of knowledge is accurate, coherent and detailed; the use of terms is accurate and comprehensive; the design is effectively explained. All these criteria feature in this answer. There could be more psychological evidence, but the use of two relevant psychological studies is sufficient given the extent of the methodological explanations provided.

**Mark awarded = 8 out of 8**

## Psychology and Consumer Behaviour

6. a) Design an experiment to investigate whether different types of music influence consumer behaviour in a shop. [10]

A field experiment will be conducted with 8 different stalls at a University charity event. All the stalls will be in one location, such as the exhibition hall, and will have space for the participants to move around them. The event will take place during the start of term when new undergraduates are likely to be on campus. Half the stalls will be selling edible items such as sweets although these will vary between stalls and half the stalls will be selling small novelty items such as pens, badges and wristbands. The prices of different items will be standardised before the study in order to ensure reliability. In order to test the effect of different styles of music each stall will have a music player and a set of speakers. Each category of music (rock, classical, pop) will have 2 stalls one from the sweet condition and one from the novelty item condition. They will have a playlist of 20 songs from each category which will be at the top of the charts in each category with any songs appearing in more than one chart being excluded. To act as a control group there will 2 stalls that play no music.

Consumer behaviour will be recorded in two ways at the stalls. The amount of time spent at the stall to the nearest minute and the amount spent at the stall. There will be 3 confederates on each stall with one being responsible for recording the time spent at the stall using a chronometer and the number of the participant, one taking any money from the participant and one asking individuals to come forward to the stall. When exiting the venue the participants will also be asked whether they had a favourite stall and why they selected this stall. Confederates at the stalls will be instructed not to directly encourage sales or for participants to add items to their sales.

Opportunity sampling will be used with posters displayed around the University campus to advertise the charity event. Participants will be let into the venue in groups of 50 students at a time to ensure that the data can accurately be recorded and that it meets health and safety guidance for events. As participants enter the venue they will be given a sticker with a number of it to ensure that their data can be recorded.

Upon exiting the venue and after participants have answered questions on their favourite stall they will be debriefed by the research who will explain that consumer behaviour was being examined in terms of the amount of time spent at the stall, the amount of money and reason for the selection of the stall. Informed consent would have to be taken from appropriate gatekeepers such as the student union and the Chancellor. The guidance on holding events at the University in terms of setting up the venue, the number of individuals in the exhibition hall and the distribution of

promotional materials will be followed.

Data will be analysed based on the mean time spent at the different types of stalls and across the different types of music. The mean amount spent at stall will be recorded on a similar basis. In terms of the exit data for participants the frequency of accounts where the stall was selected based on music will be taken. These accounts will ensure the validity of the study in that selections are not made on the basis of the confederates at stands or the goods being sold.

- b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Studies investigating consumer behaviour have often taken place in natural settings in order to give a realistic consumer experience. North et al (2003) used a restaurant to examine the impact of music on consumer behaviour and Gueguen et al (2010) used an open-air market to test the impact of background music outside. I have chosen to conduct my study in a University exhibition hall to manage the number of individuals and make data collection by confederate more manageable. I have chosen to examine the effect of music on altruistic behaviours in this case giving money to charity. The use of a control group with no music is important to see if the nature of the products on sale, sweets versus novelty items, is a significant variable. I have chosen to examine consumer behaviour in a similar manner to North et al and Gueguen et al by recording the total time and amount of money spent at the stall. In addition I will question the participants to see if the music was a significant variable in selecting a favourite stall.

By using students as participants in my study variables such as age, income and intelligence will be controlled for. These participant variables might have an impact on the amount spent on the items and the ability to attend the event. Using an opportunity sample will not require additional effort and expenditure. The use of posters would be consistent with advertising techniques on a University campus.

Participants will be deceived about the aims of the study. A charity event is a common activity at a University, increasing the mundane realism of the study. It is also likely to attract individuals who are just starting University who would be less familiar with studies into consumer behaviour and less likely to show socially desirable behaviours. If participants were informed that consumer behaviour was being investigated then they are likely to change their behaviour or show demand characteristics. During the post-event interview participants will be debriefed and given the opportunity to withdraw their data through the recording of the number on their entry sticker.

## Examiner comment

### Question 6a

This question required the design of an experiment. Examiners are therefore looking for evidence of both general methodological features and features specific to the named method (as outlined in detail at the beginning of question 5a).

This very detailed answer has some excellent methodological features included, but there are a few aspects which prevent it from scoring full marks. Firstly, the question asks for an experiment to be conducted in a shop, and the candidate proposes using eight different stalls. The candidate states that half the stalls will sell edible items and half the stalls will sell novelty items, as if this is the independent variable. If it isn't the IV, it is unclear why the candidate makes this suggestion. The candidate allocates a different type of music (and a no-music condition) to the stalls. The candidate does not state whether the variation in types of music is the independent variable or not. In the next paragraph, the candidate writes about the type of data that will be gathered and states that this will include the amount of time spent at each stall and the amount spent at the stall. There is then description of the role of each experimenter. The candidate does not refer to the type of experimental design and there is no control applied because a single participant may visit all eight stalls. In the next paragraph, the candidate states that an opportunity sample will be used and the description provided is appropriate to this technique. The candidate considers ethics in the paragraph that appears next, and, in the final paragraph, the candidate refers to the data that will be gathered.

Overall, the candidate refers to a number of design features, including the method, sampling technique, ethics and data. The candidate makes a brief mention of a control group and of validity so the experiment could be said to have five different design features. The design is appropriate to the named investigation and in places the candidate shows good understanding. However, there are ambiguities and the candidate does not take the opportunity to mention design features such as IV or DV. The candidate does not consider a shop, as the question requires.

**Mark awarded = 8 out of 10**

### Question 6b

The candidate begins by explaining that they chose to conduct a field experiment, because most other studies investigating consumer behaviour are conducted in natural settings. The candidate refers to the work of North et al. (2003) and the work of Gueguen et al. (2010). Both these are appropriate studies. The candidate explains the use of the control group and why they chose to record the type of data they did. The candidate explains why students were used in the design and, in the final paragraph, the candidate considers a range of different ethical issues that apply to the study. This answer shows a balance of appropriate psychological evidence and methodological evidence which is accurate, coherent and detailed. There is good understanding of the decisions made in relation to the evidence.

**Mark awarded = 8 out of 8**

## Psychology and Health

7. a) Design an experiment to test whether sending a reminder improves attendance at a medical appointment. [10]

The design will be a field experiment with 3 different GP surgeries to increase the sample size. A laboratory experiment would be inappropriate as the participants would know they were in a study and would behave in socially desirable ways. Similarly a questionnaire would produce equally biased data. A field experiment would be exactly like everyday life. Patients in each surgery will be randomly allocated to one of the conditions of the IV. The allocations will be done by having three pieces of paper in a hat, one for each condition. The researcher will do this because participants will not be aware they are in a study. This will make the study an independent groups design where a participant only performs in one condition of the IV. The IV: one condition will be no prompt, one a single prompt 2 days before the appointment and the final condition multiple prompts at 5 days before, 2 days before and the day of the appointment. All prompts will be delivered by text message to the participants mobile phone.

Quantitative data will be recorded in terms of the number of patients who attend their appointment in each condition. This will be the dependent variable. Each patient will also be asked to answer a short questionnaire when signing in for their appointment via a touch screen machine set up in the reception area of the surgery. They will be asked whether they received reminders, the number of reminders they received, whether they thought that the reminders were useful on a 5 point likert scale and whether they would want more reminders. This additional data will add to the original DV.

In my study I have selected participants through opportunity sampling as it will be based on those individuals who call to make an appointment with the GP during a 3 week time period. As this is something that a GP or health centre could do anyway, participants do not need to know they are in a study.

- b) Explain the psychological and methodological evidence on which your experiment is based. [8]

The issue of attendance to medical appointments has been investigated by Yokley and Glenwick (1984) who investigated different techniques to encourage parents to immunise their children. They looked at several different strategies to encourage participation including general prompts, a specific prompt with a financial incentive, a contact control and a non-contact control. In my study I decided to look at the frequency of responses rather than the nature of the response, which is significant given the number of patients attending a GP's surgery in a 3 week period and to reduce the cost of conducting my study. Watt et al (2003) looked at the use of a novel item using

a 'Funhaler' with children to improve management of asthma as a medical condition.

However, these studies are only looking at the impact on a specific issue and type of patient using medical services. I have selected to conduct my study on GP surgeries as I will access a range of medical issues that patients seek help. Moreover, GP surgeries are likely to experience non-attendance to appointments which has significant cost to the National Health Service. Waller and Hodgkin (2000) found that the non-attendance rate in the UK for GP appointment was 6.5% and a more recent study conducted by Neal et al in 2001 found increased non-attendance at 7.7%. The use of surgeries in different socioeconomic areas would also investigate whether this is an extraneous variable in accounting for the non-attendance to medical appointments.

The delivery of prompts via text message has been selected as this does not put an additional burden on the receptionists or staff at the GP surgery, as most patients will have a mobile phone as a contact point for the GP and it is more cost-effective than phone calls or letters. An independent groups design was used because a patient only has one appointment and so can only be allocated to one of the three conditions. If the study was done over time and a patient had regular appointments then a repeated measures design could be used to see which of the three was preferred.

## Examiner comment

### Question 7a

The candidate has chosen to investigate the sending of reminders to improve adherence (attendance at medical appointments) using a field experiment. The candidate begins with an explanation of why a field experiment was used, and is appropriate and shows good understanding when contrasting with other methods. The candidate writes that patients will be randomly allocated to one of three conditions and explains how this will be done. The candidate understands what random allocation is and does not confuse it with random sample, which is different. The candidate goes on to explain that the IV will have three conditions 'one condition will be no prompts, one a single prompt two days before the appointment' and a further condition with 'multiple prompts at five days, two days and the day of the appointment'. The candidate then provides an explanation of how the prompts will be delivered. In the next paragraph, the candidate states that quantitative data will include the number of patients who attend their appointment and identifies this as the dependent variable. The candidate also suggests that each participant will be asked to complete a short questionnaire using a five-point Likert scale but there is no expansion of this methodology. The candidate writes about opportunity sampling based on individuals who make an appointment, which is appropriate.

Overall, the candidate explains the experiment well, mentions a sampling technique, and refers to quantitative data. The IV and DV are identified and clearly explained, as is the independent groups design. This means that more than five design features are included. In relation to the mark scheme, the answer is a Level 4: the design is entirely appropriate to the named investigation; it is accurate, coherent and contains detail. The design features often show excellent understanding.

**Mark awarded = 10 out of 10**

### Question 7b

This question part requires candidates to explain both the psychological **and** methodological evidence on which the answer to question part (a) is based. Marks are allocated to both of these aspects so candidates should always address both of them. The candidate begins by describing the work of Yokley and Glenwick (1984); this is appropriate psychological evidence. The candidate also refers to the study by Watt et al (2003) though it is unclear how this relates to part (a). Candidates should not just write about anything and everything from the associated topic area. In the next paragraph, the candidate explains the impact that non-attendance at appointments can have. Then the candidate explains the use of prompts via text message and why attendance data was chosen. There is ample psychological evidence used in the answer so far. In the next paragraph, the candidate begins to explain some methodological decisions, starting with the logic of sending text messages rather than phone calls or letters. There is then an excellent section on experimental designs, with the candidate showing perfect understanding of two different designs. There are two different methodological decisions explained here, and for the allocated four marks, the answer is appropriate. In this answer the psychological explanations are very good, as are the methodological decisions. If any candidate only considers psychological **or** methodological evidence, then a maximum of four marks can be scored. This candidate has addressed both aspects and, as a result, this represents a high quality answer.

**Mark awarded = 8 out of 8**

## Psychology and Organisations

8. a) Design a study to investigate worker preference for job rotation or job enrichment. [10]

I will conduct a field experiment with workers in a pie factory as the participants. If they are doing their normal everyday job there will be high ecological validity and no demand characteristics. The workers do boring repetitive tasks most of the time. I will give them a closed questionnaire with questions asking them to rate various aspects of the job (such as enjoyment, boredom and satisfaction) on a Likert-type scale from 1 'strongly agree' to 5 'strongly disagree'. This will give quantitative data so it can be compared with other workers who do the same (and different jobs). I have also decided to opt for a five point scale and include the 'neutral', middle option. The questionnaire will be given before any variable is manipulated so a baseline score is obtained. Workers will then be put on a two-week programme and half of them will simply rotate jobs. This involves using the same skill level, just a different job and they will change every day. This will be the first condition of the IV. The second condition will be workers who are given a job with more responsibility; their job will be enriched. They will now be responsible for managing workers doing the same job as they were doing. Workers either do job rotation or job enrichment so the experimental design is independent. After three weeks the workers will complete the same questionnaire and their responses can now be compared with the baseline data. The same critical question will be asked to rate enjoyment, boredom and satisfaction on the 5 point scale. I will analyse the data using means and a range and I can show this using a bar chart plotting the overall mean score for 'rotation' and the mean score for 'enrichment'. Just to add, the participants will be doing their normal everyday job, so no consent is needed. They will not be deceived, harmed and they can't withdraw from their normal job. However, they will be debriefed because at the end of the three weeks they will have to return to their original job – unless the management is happy with the change and keeps the rotation and enrichment.

- b) Explain the psychological and methodological evidence on which your study is based. [8]

My study is based on strategies suggested by Hackman and Oldham (1976) to motivate workers by different methods such as, job enrichment and job rotation. Job enrichment encourages responsibility by increasing the extent to which individuals are dependent on their own efforts and decisions rather than being dependent on instructions from the boss. In this strategy responsibility for the success and failures of the given job are likely to increase a more positive outcome. Job rotation involves the employee changing positions within the same organisation and can be based on task rotation or positional rotation.

*For methodology I chose an independent groups design because it would have been too complicated if workers did job enrichment at the same time as job rotation. This has the usual disadvantage that participants in an independent groups design might be different (when in a repeated design they are the same person) but in this study it is really like a repeated design because the same person does their original job and then the changed job, so in this respect it is a repeated measures design. Another methodological decision was to use a questionnaire to assess preference. An observation was a possibility, but it would be difficult to accurately observe whether a worker preferred one job rather than another just by looking at them. A questionnaire would give self-report data. I thought about including an open-ended question asking 'which job do you prefer' but this would give qualitative data and I wouldn't have been able to apply all the descriptive statistics I did and comparisons would not have been possible. I considered using a four point scale, but decided that a worker might be neutral about preference for the jobs they were doing.*

### Examiner comment

#### Question 8a

The candidate has chosen to use a field experiment and gives an explanation of why that method was chosen. While this is correct, explanations should go in question part (b). The candidate chooses to gather data using a closed questionnaire and shows good understanding when giving an example of a question and a rating scale. Two design features have been included so far. The candidate makes a good suggestion for the IV, including details of how long the manipulation of the conditions will last and explaining the difference between the two conditions. This explanation could again be in question part (b). After this, the candidate moves on to consider the data that will be gathered and identifies the DV. There is additional information about the way in which the data will be analysed, and everything that is written is correct and shows very good understanding. Finally, the candidate writes appropriately about ethics and mentions the experimental design. In relation to the mark scheme, this is a Level 4 answer and will score full marks. The candidate has an appropriate design, they have included five design features, and these are accurate, coherent and reasonably well detailed. The candidate shows very good understanding of methodology. It should be noted that, if a candidate includes explanations in this question part instead of in question part (b), the Examiner cannot transfer marks across to a different question. However, there are ample explanations for methodological decisions in part (b) so there is no problem in this instance.

**Mark awarded = 10 out of 10**

#### Question 8b

The candidate begins by referring to the work of Hackman and Oldham (1976) but says nothing more about their work. The description of job enrichment is correct as is the description of job rotation. The candidate then begins to explain the methodology that they suggested in part (a). The candidate clearly knows what is involved in both repeated and independent group design and explains each of them well. In effect, both designs are involved in this study. The candidate explains why a questionnaire was chosen (in preference to observation), why a closed questionnaire was chosen (rather than open-ended) and even explains why a five-point scale was chosen. These two methodological explanations are excellent and are of very high quality. A maximum mark for methodology is clearly deserved, but the psychological evidence isn't quite at the same standard.

**Mark awarded = 7 out of 8**

## Section C

You must answer **one** question from this section.

### Specimen answers

#### Psychology and Abnormality

9. 'Conducting a case study is the best way to find out about obsessive, compulsive and related disorders.'

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

*Case studies are research methods that encourage valid data to be gathered about a range of psychopathologies including Obsessive Compulsive Disorders (OCD). As part of conducting a case study a researcher will use a variety of techniques to gather information from a select group of participant, which may provide concurrent validity in that individuals respond in similar ways to different techniques. A researcher could use interviews in order to understand the impact of symptoms or why compulsions might alleviate the obsessions individuals have. As participants are able to respond in their own words and over a longer period of time they are able to give more accurate and valid information about OCD. As part of case study psychometric and physiological tests could also be conducted on the same individual preventing extraneous variables such as age or gender have an impact on the outcome of the test.*

*A fundamental strength of using case studies in psychological research is that provide rich detailed information from the participant that may gather data on the nature of the obsessions and compulsions of individuals as well as how specific tests or therapeutic strategies affect their lives. Rapoport (1990) was able to get information from a wide variety of sources attached to specific cases of OCD including the parents, psychologists and social workers that have interactions with individuals with OCD. As such the researcher is able to see the impact of disorders beyond a patient and what social and emotional impact their disorder has on others. Rapoport's use of case studies also enables a detailed investigation of specific cases that have different types of OCD. Given the in-depth approach taken with case studies it is particularly useful with children to give them a voice in research and build a relationship with them.*

*As a case study is more in depth the participant is more likely to feel like a part of the research process and able to contribute to the examination of obsessive, compulsive and related disorders. The research is likely to build a rapport with an individual in order for them to be more honest particularly significant as individuals diagnosed with OCD are likely to experience shame and embarrassment.*

*However, case studies are idiographic nature and only seek to research individuals or*

small groups of a target population and so not representative of the likely experiences, symptoms and problems associated with OCD, which is particularly problematic as diagnosis of OCD vary widely. Obsessions can be routed in different fears from a fear of deliberately harming themselves or others, fears of contamination by disease, infection or an unpleasant substance or a need for symmetry or orderliness (NHS: 2014). By conducting a case study the research is unable to make comparisons with other individuals are not possible and so cause and effect cannot be isolated.

Furthermore, case studies are retrospective in nature and it is unlikely that the researcher has observed or had contact with the individual prior to being diagnosed with OCD. As such the researcher will have difficulties in explaining OCD as it is uncertain whether factors are the cause or consequence of disorders. For example, a high level of dopamine is associated with OCD but from conducting a case study it is unclear whether excess dopamine preceded the symptoms or is a consequence of the patient experiencing obsessions and compulsions.

In conclusion, case studies are a useful for a researcher to understand the impact and consequence of obsessive, compulsive related disorders and will develop a more personable understanding of the nature of theses psychopathologies. However, case studies would not be effective in looking at explanations of or treatments for OCD as these would need to be generalised across a broader sample of participants.

### Examiner comment

#### Question 9

The candidate begins by explaining the different methods (variety of techniques) a case study could involve, such as interviews, psychometric or physiological tests. In the next paragraph, the candidate outlines a strength of case studies, namely the opportunity to gather accurate and detailed information, conveyed in participants' own words, over a longer period of time. The candidate then provides details of a relevant case study, that of 'Charles' studied by Rapoport (1990). What is impressive here is that the candidate doesn't just describe the whole study, but also considers aspects that relate specifically to the case study method. The candidate therefore answers the question directly and shows good examination technique. So far the candidate has shown excellent knowledge and understanding of the case study method applied to this topic area. In the next paragraph, the candidate considers the problems associated with case studies, such as that they only consider individuals, are not representative, and that comparisons are not possible. The candidate points out that OCD varies widely between individuals, and a few supporting examples are provided. Yet more arguments are presented and excellent knowledge about this topic area is shown. The candidate provides a comprehensive conclusion answering the original question. This is a top level answer because both sides of the argument are considered. Although only one case study is referred to, for this topic area one example of a case study is sufficient. The discussion is detailed, there is excellent understanding and very clear expression. A conclusion is drawn with appropriate justification.

**Mark awarded = 12 out of 12**

## Psychology and Consumer Behaviour

10. 'Studies of retail/leisure design environments have not helped psychologists understand buyer behaviour.'

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychological research into the effects of design environments in understanding buyer behaviour is problematic because they are reductionist. Studies overlook that there are a variety of different interconnecting elements in designing environments to encourage buying behaviour. These include the exterior of the store, the general interior, layout and design variables, point-of purchase and decorating variables. In fact all of these variables have a number of contributing factors that may have a varying impact of buyer behaviour. In order to examine the impact of specific factors psychological research must simplify the interaction of variables and test specific variables and their impact on consumers. However, in doing so psychological studies become reductionist ignoring the complex interaction between the exterior and interior of stores. Furthermore, they often limit the impact of or ignore the contribution human variables, such as crowding or the characteristics of the employees as characterised by customer service and the experience for the consumer in the store, as these are difficult to test objectively.

Studies are often contrived scenarios that have been conducted in laboratories or virtually and lack ecological validity. The behaviours of participants do not reflect natural behaviour as the studies do not include additional factors that affect consumer behaviour such as mood or personality factors that might contribute to buying behaviours. In addition to this studies are low in mundane realism as buying behaviour is often classified as a willingness to purchase or the time spent within the store however, these may not indicate actual buying behaviours and may reflect social desirability on the part of the participant/consumer.

However, psychological research indicates that the design environment in the retail or leisure sectors has been shown to have a significant impact on buying behaviour. Vrechopoulos et al (2004) conducted a study using a virtual store layout examining different design environments including freeform, grid and racetrack designs. Participants were given a planned shopping task to complete in the virtual environment and money to spend. The layout of the virtual stores significantly affected the buyers' behaviours with the freeform layout being perceived as the most useful in findings products and entertaining and grid layout was perceived as easier to use. The findings from Vrechopoulos et al suggest that complexity of design was identified as a negative factor in the creation of design environments. This suggests that it is a

significant variable in buyer behaviour.

Psychological research has also been conducted into other areas of the design environment that are significant in buying behaviour. Kutlu et al (2013) examined the impact of colour and light on environmental perceptions. They found that the perceived image and identity of the stores were strongly affected by these variables through affecting the cognitive memory and satisfaction of customers. Moreover, sound can have an influence in creating an environment that encourages buying behaviour. North et al (2003) examined the effect of classical, pop and no music on the average spend per head and the total time spent in a British restaurant. They found that individuals were more likely to spend more when classical music was played in the background in terms of both actual spending and willingness to spend.

In conclusion, psychological research has contributed significantly to our understanding of buying behaviour and suggests that the layout, colour and light and music played within the design environment can increase spending and a consumers willingness to spend.

### Examiner comment

#### Question 10

The candidate begins this answer with the comment that 'design environments are problematic because they are reductionist'. Throughout the first paragraph, the candidate clearly understands what reductionism is and relates it very clearly to the question. For example, the candidate writes that 'there are different interconnecting elements such as the exterior of the store, the general interior, layout and design variables, point-of-purchase, and decorating variables all of which have an impact on buyer behaviour'. There is then the comment that, while research must simplify in order to test specific variables, this reductionist approach must not lose sight of the complex interaction between different variables. The candidate refers to other variables which can also impact on buyer behavior, such as crowding, the characteristics of employees and customer service. Without any doubt, the candidate has a wide knowledge of the factors relevant to this question. In the next paragraph, the candidate considers additional arguments such as that much research has been conducted in laboratories or through virtual environments, but that these do not reflect natural behaviour. This paragraph on methodology again shows good understanding. So far, although the quality of this answer is excellent, there are no supporting examples. In the next paragraph, the candidate considers design factors which are considered to affect buyer behaviour. The candidate begins by describing the study on virtual store layout by Vrechopoulos et al. (2004). In the next paragraph, the candidate considers further evidence from one study looking at the impact of colour and light (Kutlu et al. 2013) and another looking at the influence music can have on buyer behaviour (North et al. 2003). Although there were no examples in the first half of the answer, the candidate has now considered three relevant examples and satisfies the marking criteria for the inclusion of examples. There is an appropriate conclusion at the end of the answer which shows good understanding. Overall, the candidate has presented arguments for and against and has included appropriate examples. The discussion is detailed and the level of understanding is impressive.

**Mark awarded = 12 out of 12**

## Psychology and Health

### 11. 'Arousing fear is the most effective way to promote health.'

To what extent do you agree with this statement? Use example of research you have studied to support your answer. [12]

Arousing fear has been found to be an effective way to promote health as it draws attention to a given issue and may prompt individuals to act on symptoms that indicate an early onset of a disorder or condition. If individuals are more focused on the message and it increases action from the general public the ethical issues inherent in deliberately increasing fear may be justified. The effectiveness of early identification and intervention for individuals has a clear effective on prognosis and may increase survival and limit the likelihood of complications.

Psychological research has suggested that the use of fear is effective in health campaigns. Leventhal et al (1965) conducted a study to investigate the effect of different levels of fear on specific action plans and general recommendations to attitudes towards and getting tetanus shots. They found that arousing fear resulted in preferential attitudes to shots and stronger expressions of interest in the tetanus shots. In addition to this they found that specific action plans were significant in actually changing behaviour and participants getting shots. Leventhal et al concluded that some level of arousal was required for action to occur suggesting that fear may be a useful tactic in promoting health. However, Janis and Feshbach (1953) found that arousing fear reduces the impact of promoting health particularly if the promotion creates emotional tension and fear without provided reassurance to the individual. Janis and Feshbach examined the impact of fear on dental hygiene in high school students by giving participants a series of questionnaires to investigate emotional reactions and changes on beliefs, practices and attitudes. They found that minimal appeal that rarely discussed the consequences of tooth decay were the most effective in both verbal and behavioural responses to the recommended practices. Both fear conditions, moderate and strong, had no significant impact on responses to the recommended practices suggesting that arousing fear is not an effective way to promote health.

There are alternative factors other than fear that are more significant in creating long term changes in attitudes and promotion of health. Lau, Quadrel and Hartman (1990) conducted a longitudinal study in young adults' health beliefs and behaviour. They found that health behaviours are strongly influenced by peers but that parents are more important sources of health beliefs and behaviours. Moreover, they found that the direct modelling of behaviours was significant in promoting health suggesting that promoting action is significant in having an impact on health. In addition to this, psychological research on the impact of arousing fear is reductionist as it ignores the

impact of other factors in communication. The Yale model suggests that the medium of distributing the message, the source of the message and audience factors may be significant in ensuring that the health message is persuasive. In order to promote health the source of the message has to be viewed as an expert in order to be persuasive. As such the use of celebrities or actors may be ignored by the general or viewed as unable to talk about specific health issues.

Psychological research into the use of arousing fear may ignore the nature of the relationship between fear and action. It has been suggest that it may be a curvi-linear relationship where if the promotion creates too much fear and individuals may switch off or believe that the health issue will not apply to them and if there is no emotional arousal from the promotion then it will not create attention and action.

In conclusion, I believe that the use of fear in health campaigns would be a useful tool but would need to be delivered by an appropriate source or expert and include clear directions for the individual if they are experiencing particular symptoms to promote action.

### Examiner comment

#### Question 11

This is a very good answer which receives maximum marks. Both sides of the argument are considered and these are directly relevant to the question. Appropriate examples are included, indeed there are more than enough supporting examples in this answer. The discussion is very detailed and the candidate clearly understands this topic area. A conclusion is drawn with appropriate justification.

The answer begins with evidence in favour of arousing fear and refers to ethical issues. In the next paragraph, the candidate presents supporting evidence when quoting the work of Leventhal et al. (1965). The description of this study is quite detailed and this level of detail isn't needed. The crucial element is the conclusion to this study and this is included when the candidate writes 'some level of arousal is required for action to occur'. The candidate then moves on to consider work by Janis and Feshbach (1953), who found that minimal fear is more effective. In the next paragraph, the candidate begins by stating that 'there are alternative factors other than fear that are more significant' and this shows that the second half of the answer is beginning. Doing this helps the Examiner to distinguish the two main halves of the answer. The candidate begins by quoting the study by Lau et al. (1990) and comments that health behaviours are influenced by peers and parents, and also mentions the importance of modelling behaviour. Further evidence is presented in the form of the Yale model of communication. Yet another appropriate point is made when the candidate considers the relationship between fear and action. The conclusion given by the candidate is appropriate. Full marks are awarded.

**Mark awarded = 12 out of 12**

## Psychology and Organisations

12. 'A high level of pay is the only motivator any worker needs.'

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Pay has consistently been a significant motivator for workers and has been used in several different forms to increase the productivity of staff and commitment of staff. One method of motivating employees through pay is using bonuses when a sum of money is added to an individual's pay to reward good performance. In a similar way an employee may be motivated through performance-related pay where they are paid based on how well they work this might take the form of commission where the individuals are encouraged to make a greater quantity of sales or encourage large sales. Eisenberger, Rhodes and Cameron (1999) examined the relationship between pay and performance in laboratory and field studies. They found that pay for meeting a particular standard of work had a positive effect of self-determination and competence, enjoyment of a given task and the amount of free time spend on performing the task. Their research suggests that high levels of pay will be a significant motivating factor in encouraging workers.

However, the relationship between pay and motivation is not simplistic. Kuvaas (2006) examined employee attitudes and behaviours for employees on different pay levels and pay administration in a Norwegian multinational company. The company gave individuals bonuses based on individual and collective performance. Kuvaas found that base pay level rather than bonus level was positively correlated to self-reported work performance and commitment to the organisation and other employees. He also found that the relationship between pay and performance was mediated by intrinsic motivation, an individual's internal sense of motivation. The findings suggest that pay is not the only factor that motivates workers.

Furthermore, the use of high levels of pay may have a negative impact on those individuals who are internally motivated in their work. Deci et al (1999) conducted a meta-analysis on 128 studies to examine the effects of extrinsic reward on intrinsic motivation. They found that the use of engagement based, completion based and performance based rewards undermined free choice and intrinsic motivation. Furthermore, they found that all rewards, actual or expected, also undermined internal motivation. These findings suggest that the use of pay related motivators may have a detrimental impact on the motivation of workers. The focus on high levels of pay to motivate workers ignores the effectiveness of non-monetary rewards such as praise or recognition. The use of these forms of motivation can be provided more regularly within the workplace and be directly associated by the employee to a specific

skill or action. Deci et al found that positive feedback increased free choice behaviour and self-reported interest, which suggests that alternative motivators may be influential in creating more long term changes.

Individual differences in the nature of employees that are likely to be employed in certain fields of work may also have an impact of the effectiveness of high pay in motivating workers. The use of high pay has found to be effective in manual jobs but less effective in the job satisfaction of individuals in professional jobs. It may be that individuals within professional fields are more intrinsically motivated and therefore the use of pay as a motivator is less effective.

In conclusion, a high level of pay is not the only way to motivate workers as psychological research has found that non-monetary reward and intrinsic motivation are successful strategies to motivate workers. It is important for organisations to use a range of strategies, including high pay, to motivate their workforce and encourage employees to be responsible for their actions.

### Examiner comment

#### Question 12

In this answer, the candidate considers both sides of the argument in relation to pay as a motivator and draws an appropriate conclusion. The answer begins with the candidate considering the evidence that pay is a significant motivator for workers. The candidate writes about bonuses and performance-related pay. The candidate also considers appropriate experimental evidence by Eisenberger et al. (1999) who found that pay had 'a positive effect of self-determination, competence and enjoyment for a given task'. The candidate writes that 'their research suggests that high levels of pay will be a significant motivating factor in encouraging workers'. This concluding sentence shows good understanding. In the next paragraph, the candidate considers the other side of the argument. The candidate begins by quoting the study by Kuvaas (2006) which found that 'the relationship between pay and performance was mediated by intrinsic motivation'. Again the candidate shows good understanding when writing 'the findings suggest pay is not the only factor that motivates workers'. Many candidates simply quote studies without explaining why they are included. This candidate makes it clear why the Kuvaas (2006) study was included and this is excellent examination technique. In the next paragraph, the candidate makes a valuable point when referring to individual differences in work motivation, suggesting that rather than pay or extrinsic motivation being a motivator for everyone, high pay is effective for manual jobs but intrinsic motivation is more of a motivator in professional jobs. The candidate draws an appropriate conclusion. This answer fulfills all the level descriptor criteria for a maximum mark.

**Mark awarded = 12 out of 12**

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