

PSYCHOLOGY

Paper 9990/11 Approaches, Issues and Debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks, these need to be correctly present in their responses. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue. Credit is limited if the named issue is omitted. In addition, if the candidate is required to explain a similarity or a difference then they must explicitly do so.

Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit or not.

Candidates also need to engage with any stimulus material presented in a question (e.g. a novel situation) to ensure they can access all available marks. In addition, when a question refers to 'in this study' the answer requires contextualisation.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is, based on the particular core study, and then how the study will be useful.

Candidates need to understand the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study. There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There is now no evidence that candidates had not learned the new studies that form the 9990 syllabus. This was also evidenced by very few blank answers.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers in evidence. Appropriate examples were used from studies when the question expected it and there was evidence of candidates being able to apply their knowledge to real-world behaviours.

Comments on specific questions

Question 1

- (a) Responses to this question were varied. Many recalled the instructions given to all participants instead of those only given to the doodling condition. In order to improve, candidates need to read the whole question and understand it before producing a response.
- (b) There were many good responses to this question with many comparing the doodling condition with the control condition for the recall of names. Some responses stated that the doodling condition had better 'memory', but this could only gain partial credit. Specific results and terms used in the original study must be used to answer questions like this.

Question 2

- (a) Many responses could clearly outline an aim of the Bandura et al. study with popular choices being about social learning and imitating aggression in the absence of a model.
- (b) Responses to this question were varied. Some responses could clearly and succinctly identify three examples of physical aggression used by Bandura et al. in their study. Some responses could identify one or two examples of physical aggression but had their third answer as verbal. It is essential to read the entire question carefully in order to maximise the potential to gain maximum marks on questions of this type. In addition, some responses focused on aggression that was non-imitative.

Question 3

- (a) Many responses showed evidence of having limited knowledge of the assumptions of the biological approach and were not always able to give a reason as to why the Canli et al. study is biological. Responses to questions like this should highlight an assumption of the given approach and then use evidence from the named study to explain why this assumption is met. Some responses did this clearly and effectively, but many did not.
- (b) Stronger responses could explain one weakness of using brain scans in research with the contextualisation of the Canli et al. study. Popular choices included lack of validity or that people may feel anxious and therefore their responses may not be real world in nature. Many responses gave generic answers and could only gain partial credit. The question stated 'in this study' so there had to be an example directly from the Canli et al. study to gain maximum marks.

Question 4

Stronger responses to both parts of this question could differentiate between the two stages of the study by Dement and Kleitman. However, this was infrequent. Sometimes responses gave virtually the same answer to **parts (a) and (b)** or wrote about the use of an EEG for **part (a)**. It is important to know all procedural aspects of core studies in order to be able to answer questions of this type.

Question 5

- (a) Candidates can improve their answers to this style of question by understanding the difference between the victim and the model in the Piliavin et al. study. Weaker responses described what the victim was asked to do in either condition, rather than the model. Stronger responses could clearly describe where the model was meant to stand, how long they had to wait before intervening and then helping the victim. Care needs to be taken when reading questions to ensure that the response matches the demand of it.
- (b) Many responses could identify one methodological strength of the Piliavin et al. study. Popular choices included ecological validity, reliability and potential generalisability. As with other questions that have 'this study' mentioned in it, explicit contextualisation is necessary to be able to access maximum marks.

Question 6

Responses to this question were very varied. Stronger responses could describe the psychology being investigated in the study by Yamamoto et al. This usually focused on altruism and empathy in general terms with clear definitions and ideas. Many responses simply described the Yamamoto study, for limited credit. To improve the quality of responses to questions of this type, the answer must be generic using psychological terms and ideas that were being investigated outside of the context of the named core study.

Question 7

- (a) The large majority of responses could name two of the colours the parrot could use before the study by Pepperberg.
- (b) Some stronger responses could give a result that clearly stated the type of result (all trials or first-time) to access both available marks. Other responses gave results not from the same test given in the question. Candidates can improve their answers to questions like this by focusing on the rules of the question. In this case data had to be used. Many responses did not include data or when it did, the data was incorrect.
- (c) Candidates can improve their answers to questions of this type by clearly describing what the study could be used for as part of a real-world application and then explaining how. Responses need to explicitly tell the Examiner how the idea would be used, based on a specific element of the study. Popular choices included teaching assistance animals or children the concept of same or different. In addition, there were other examples about teaching turtles to see all plastics as being the 'same' and avoiding them. A range of ideas were presented to this question.

Question 8

Stronger responses could clearly explain why both Javier and Lorena were correct in their beliefs about the Saavedra and Silverman study in terms of ethics. The most popular choice for Javier was about the study clearly gaining informed consent from the boy and his mother. The most popular choice for Lorena was about how psychological stress was caused throughout the therapy part of the study as he had to confront buttons. Some responses did not engage with the scenario and could only be awarded partial credit.

Question 9

- (a) Responses to this question were very varied. Stronger responses could clearly identify and then operationalise two independent variables in the Schachter and Singer study. However, many responses either identified or operationalised or as part of the identification simply stated 'the condition' without explicitly identifying that it was the injection information of the emotional situation.
- (b) Responses to this question varied for a variety of reasons. Stronger candidates could explain two differences between Schachter and Singer and the Canli et al. study. Popular choices included the composition of the sample, the techniques used to collect data and (non) ethical components of the studies. Some responses chose the aim as a difference but as this cannot be fully explained these answers tended to score L1 only. To improve on the responses seen to this question, the differences need to be chosen so that each can be fully explained to an Examiner as to why it is a difference. That is, the difference must be a related, comparable one (like the sample) rather than simply describing two 'different' things about a study (like the aim).

Question 10

The strongest responses evaluated the Laney et al. study in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of self-reports. Common choices included types of data collected, reliability, validity and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the Laney et al. study explicitly to support their point. These answers tended to score Level 4 marks. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses all in equal depth. Some responses did cover the four evaluation points but were brief, or did not use the Laney et al. study as examples, which meant the response scored in the lower bands. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief, which meant the response did not reach the top band in the main. Candidates need to know that any description of the study does not gain credit as the question is testing their evaluation skills only. In addition, it was noted that in this series more candidates were following a GRAVE approach to this question (generalisability, reliability, application, validity, ethics). Therefore, some candidates appeared to be producing prepared essays for Laney et al. without one of their points being about self-reports. A response that does not have one evaluation point about the named issue can only score limited credit, as it does not fully answer the question set. There were a significant number of answers in this series that had no context to Laney et al. at all, producing four evaluation points that were generic. These scored marks in the Level 1 band.

PSYCHOLOGY

Paper 9990/12 Approaches, issues and debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks these need to be correctly present in their responses. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue. Credit is limited if the named issue is omitted. In addition, if the candidate is required to explain a similarity or a difference then they must explicitly do so.

Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit or not.

Candidates also need to engage with any stimulus material presented in a question (e.g. a novel situation) to ensure they can access all available marks. In addition when a question refers to 'in this study' the answer requires contextualisation.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is, based on the particular core study, and then how the study will be useful.

Candidates need to understand the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study.

There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There is now no evidence that candidates had not learned the new studies that form the 9990 syllabus. This was also evidenced by very few blank answers.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers in evidence. Appropriate examples were used from studies when the question expected it and there was evidence of candidates being able to apply their knowledge to real-world behaviours.

Comments on specific questions

Question 1

- (a) Many responses to this question were correct (amygdala). Incorrect responses tended to focus on a way of measuring brain activity.
- (b) There were many good responses to this question with clear descriptions of how the participants rated the scenes and what scale was used. Some responses covered the results of the study rather than this procedural point.
- (c) Many responses gave a result rather than a conclusion. Results are the presentation of data collected from the study (usually by what participants are expected to do in the study) whereas conclusions are generic summaries of what were found without presenting actual data. This difference is crucial to understand so that more responses gain the maximum amount of marks available.

Question 2

- (a) Many responses could clearly outline an aim of the Baron-Cohen et al. study with popular choices being about Theory of Mind and methodological improvements from the original test.
- (b) Responses to this question were varied. Some responses could clearly identify two comparable groups of participants and present actual results based on the AQ with data (as was stated in the question). Some responses gave a comparison with Group 2 but could not gain credit as this group did not produce AQ scores. Other incorrect responses gave a result based on the Eyes Test rather than the AQ test as highlighted in the question. Results, in the main, should clearly compare two groups of participants on a dependent variable measurement.

Question 3

- (a) Many responses showed evidence of knowing limited assumptions of the social approach and therefore were not always able to give a reason as to why the Yamamoto et al. study is social. Responses to questions like this should highlight an assumption of the given approach and then use evidence from the named study to explain why this assumption is met. Some responses did this clearly and effectively but many did not.
- (b) Stronger responses could explain one strength of using animals as participants in research with the contextualisation of the Yamamoto et al. study. Popular choices included: allows for greater controls and that they are potentially more readily available. Many responses gave generic answers and could only gain partial credit. Common responses that were not creditworthy included animals not showing demand characteristics. The question stated 'in this study' so there had to be an example directly from the Yamamoto et al. study to gain maximum marks.

Question 4

Stronger responses to this question could clearly describe the specific details of the novel objects testing in the study by Pepperberg. To improve responses to question of this type, candidates need to focus on the part of the procedure asked for in the question. There were responses to this question that only focused on the generic procedure for testing the parrot and these could only receive partial credit as none of the response was about the novel object test.

Question 5

- (a) The majority of responses to this question described that the shock was 45v. However, stronger responses could describe the procedure of the sample shock in more detail (e.g. where it was applied or how it was given via a battery). Many responses described the 'fake shocks' given to the learner rather than the 'sample shock' given to the teacher. Candidates need to be careful when reading questions to ensure they are presenting the correct information.

- (b) Many responses could identify one methodological weakness of the study by Milgram. Popular choices included lack of mundane realism, gender bias in the sample and low levels of ecological validity. As with other questions that have 'this study' mentioned in it, explicit contextualisation is necessary to be able to access maximum marks. There were a number of responses that gave an ethical weakness which could not gain credit here as the question was about methodology.

Question 6

Responses to this question were very varied. Stronger responses could describe the psychology being investigated in the study by Laney et al. This usually focused on false memories in general rather than focusing on asparagus. Many responses simply described the Laney study only, for limited credit. To improve the quality of responses to questions of this type, the answer must be generic using psychological terms and ideas that were being investigated outside of the context of the named core study.

Question 7

- (a) The large majority of responses could name two things participants were asked to do or not to do prior to the study by Dement and Kleitman.
- (b) Many responses could describe a comparison between the dream recall in REM compared to NREM or estimations of 5 minutes versus 15 minutes in REM. However, other responses presented a result but it was incorrect – for example stating the percentage of participants who recalled dreams in REM rather than stating it was the number of trials when a dream was recalled. Candidates need to be careful when presenting results ensuring that they have the parameters correct (e.g. number of participants or number of trials). Candidates can improve their answers to questions like this by focusing on the requirements of the question. In this case it required a quantitative result.
- (c) Candidates can improve their answers to questions of this type by clearly describing what the study could be used for as part of a real-world application and then explaining how. Responses need to explicitly tell the Examiner how the idea would be used, based on a specific element of the study. A popular choice was helping out with the treatment or diagnosis of sleep disorders. Responses that focused on 'why we dream' or 'why we have different dreams' could not receive credit as these are not real-world applications.

Question 8

Stronger responses could clearly explain why both Lok and Hiruni were correct in their beliefs about the Schachter and Singer study in terms of ethics. The most popular choice for Lok was about the study maintaining confidentiality or letting the participants withdraw before the injection. The most popular choice for Hiruni was about deception in terms of the stooge and/or the injection information. Some responses did not engage with the scenario and could only be awarded partial credit.

Question 9

- (a) Responses to this question were very varied. Stronger responses could clearly describe everything that was recorded by the female observers. Responses that simply gave results could only gain partial credit as this was not the focus of the question, rather a consequence of what was recorded by the observers rather than what was actually recorded per trial.
- (b) Responses to this question varied for a variety of reasons. Stronger candidates could explain two similarities between the Piliavin and Yamamoto studies. Popular choices included both being about helping behaviour and both collecting predominantly quantitative data. Some responses chose to compare 'ethics' but this could not gain credit as the studies used different guidelines. To improve on the responses seen to this question, the similarities need to be chosen so that it can be fully explained to an Examiner as to why it is a similarity.

Question 10

The strongest responses evaluated the Saavedra and Silverman study in depth and in terms of two strengths and two weaknesses, with at least one of these points covering the named issue of case studies. Common choices included types of data collected, reliability, generalisability and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the Saavedra and Silverman study explicitly to support their point. These answers tended to score Level 4 marks. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses all in equal depth. Some responses did cover the four evaluation points but were brief, or did not use the Saavedra and Silverman study as examples which meant the response scored in the lower bands. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief, which meant the response did not reach the top band in the main. Candidates need to know that any description of the study does not gain credit as the question is testing their evaluation skills only. In addition, it was noted that in this series more candidates were following a GRAVE approach to this question (generalisability, reliability, application, validity, ethics). Therefore, some candidates appeared to be producing prepared essays for Saavedra and Silverman without one of their points being about case studies. A response that does not have one evaluation point about the named issue can only score limited credit, as it does not fully answer the question set. There were a significant number of answers in this series that had no context to Saavedra and Silverman at all, producing four evaluation points that were generic. These scored marks in the Level 1 band.

PSYCHOLOGY

Paper 9990/13 Approaches, issues and debates

Key messages

Candidates need to know all components of the study as listed in the syllabus. Questions can be asked about any part of a study.

Candidates need to read the whole question carefully to ensure that their responses are fulfilling the demands of each one. For example, the question may require data or a named issue to be included. To achieve full marks these need to be correctly present in their responses. The essay (final question) requires four evaluation points to be in depth (two strengths and two weaknesses) with at least one of these about the named issue. Credit is limited if the named issue is omitted. In addition, if the candidate is required to explain a similarity or a difference then they must explicitly do so.

Candidates need to be careful about how they are presenting the results of studies. For example, they need to know if the results are about how many participants performed a task correctly or on how many trials the participant was correct. This can have a large impact on the interpretation of results and whether a response can gain credit or not.

Candidates also need to engage with any stimulus material presented in a question (e.g. a novel situation) to ensure they can access all available marks. In addition when a question refers to 'in this study' the answer requires contextualisation.

Candidates need to be able to know about real-world applications for all core studies. To show understanding, answers need to tell the Examiner what the application is based on the particular core study and then how the study will be useful.

Candidates need to understand the difference between a result and a conclusion. The former is factual and based on collected data. The latter is a generic comment based on the results reported in any core study. There is enough time for answers to be planned to ensure that the response given by a candidate is focused on the demands of each question.

General comments

The marks achieved by the candidates sitting this examination covered a wide spread of possible marks. Some candidates provided a range of excellent answers to many of the questions and could explain psychological terminology well, providing evidence that they were prepared for the examination. There is now no evidence that candidates had not learned the new studies that form the 9990 syllabus. This was also evidenced by very few blank answers.

Stronger overall responses followed the demands of each question with explicit use of psychological terminology and logical, well planned answers in evidence. Appropriate examples were used from studies when the question expected it and there was evidence of candidates being able to apply their knowledge to real-world behaviours.

Comments on specific questions

Question 1

- (a) The responses to this question were mixed. Certain responses could name two features noted for every rider in the critical area. However, many responses did not report what was noted for every rider and noted any feature that had been recorded. It is important for candidates to read the question carefully to ensure that their answers are fulfilling all of the demands of it.

- (b) There were many good responses to this question with a clear reason as to why the experiment took place where it did.
- (c) Some responses gave a result rather than a conclusion using data to 'back up their answer'. Results are the presentation of data collected from the study (usually by what participants are expected to do in the study) whereas conclusions are generic summaries of what were found without presenting actual data. This difference is crucial to understand so that more responses gain the maximum amount of marks available.

Question 2

- (a) Responses to this question were varied. Some responses could clearly describe what instructions were given to the teacher. Other responses focused on the instructions given for the 'sample shock' which was not what the question was asking about. All aspects of the procedure need to be understood by candidates using terminology from the original study.
- (b) There were many correct responses to this question with popular choices being sweating and nervous laughter. Some responses covered behaviours that were not noted in the study itself so could not gain credit.

Question 3

- (a) Some responses showed evidence of knowing limited assumptions of the learning approach and therefore were not always able to give a reason as to why the Saavedra and Silverman study is learning. Responses to questions like this should highlight an assumption of the given approach and then use evidence from the named study to explain why this assumption is met. Some responses did this clearly and effectively by linking specific aspects of the study to operant and/or classical conditioning.
- (b) Stronger responses could explain one problem of using children as participants in research with the contextualisation of the Saavedra and Silverman study. Popular choices included potential ethical issues surrounding informed consent and that children may have difficulty understanding a task presented to them. Many responses gave generic answers and could only gain partial credit. The question stated 'in this study' so there had to be an example directly from the Saavedra and Silverman study to gain maximum marks.

Question 4

Stronger responses to this question could clearly describe how the new target words and foils were developed. To improve responses to questions of this type, candidates need to focus on the part of the procedure asked for in the question. There were responses to this question that only focused on the entire eyes test (e.g. increasing the choice from two to four) but aspects of this could not gain credit as, even though it is correct knowledge, it is not for the actual question set.

Question 5

- (a) The majority of responses to this question identified at least one behaviour that was coded as 'joins in activity.' There were some responses that gave generic behaviours that were not clearly those coded by Schachter and Singer so could not gain credit. It is important for candidates to know exact coding and categories used in the original study.
- (b) Many responses could identify one methodological strength of the study by Schachter and Singer. Popular choices included reliability, validity and the use of objective data. As with other questions that have 'this study' mentioned in it, explicit contextualisation is necessary to be able to access maximum marks.

Question 6

Responses to this question were very varied. Stronger responses could describe the psychology being investigated in the study by Bandura et al. This usually focused on social learning theory in general rather than focusing on aggression. Some responses simply described the Bandura study only, for limited credit. To improve the quality of responses to questions of this type, the answer must be generic using psychological terms and ideas that were being investigated outside of the context of the named core study.

Question 7

- (a) There were many responses that did not provide a correct answer to this question. Many appeared to confuse the Food History Inventory with the Restaurant Questionnaire or the Food Preferences Questionnaire. It is important for candidates to know how data was collected and what measures were used that form the main results of a given study.
- (b) Candidates can improve their answers to questions like this by focusing on the rules of the question. In this case it was using data from the Food History Inventory. Many responses could describe a result from a different questionnaire or an incorrect result from the Food History Inventory. Candidates need to be careful when presenting results ensuring that they have the parameters correct (e.g. the correct questionnaire's data is being presented).
- (c) Candidates can improve their answers to questions of this type by clearly describing what the study could be used for as part of a real-world application and then explaining how. Responses need to explicitly tell the Examiner how the idea would be used, based on a specific element of the study. A popular choice was helping to improve the diet of fussy eaters or people with weight problems. These tended to cover both the 'what' and the 'how' components of the question.

Question 8

Stronger responses could clearly explain why both Kim and Alphonse were correct in their beliefs about the Pepperberg study in terms of ethics. The most popular choice for Kim was about the study not using deprivation in any part of the training or testing and that only one parrot was used. The most popular correct choice for Alphonse was about potential issues with caging and the parrot being in isolation even though he is from a social species. There were many responses about having him in captivity or about him being bored but these could only gain minimal (if any) credit. For boredom, there was no evidence provided in the original study that this happened. It is important that issues are only reported if they actually happened and were reported in the original study rather than simply inferred. Some responses did not engage with the scenario and could only be awarded partial credit.

Question 9

- (a) Responses to this question were very varied. Stronger responses could clearly describe both of the tasks that were central to the study by Yamamoto et al. However, there were many responses that described the conditions rather than the tasks that the chimpanzees had to complete. Candidates needed to read the question carefully to ensure they were answering what was set. There is enough time for this examination to be able to plan answers and reflect on responses to ensure the set question is being answered.
- (b) Responses to this question varied for a variety of reasons. Stronger candidates could explain one similarity and one difference between the Piliavin and Yamamoto studies. Popular choices included both being about helping behaviour and having different species as samples. Some responses chose to compare 'ethics' but this could not gain credit as the studies used different guidelines. To improve on the responses seen to this question, the similarity and difference need to be chosen so that it can be fully explained to an Examiner as to why it is a similarity or a difference.

Question 10

The strongest responses evaluated the Dement and Kleitman study in depth and in terms of two strengths and two weaknesses with at least one of these points covering the named issue of laboratory-based studies. Common choices included types of data collected, reliability, generalisability and ethics. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the Dement and Kleitman study explicitly to support their point. These answers tended to score Level 4 marks. Candidates need to ensure that they follow the demands of the question, covering two strengths and two weaknesses all in equal depth. Some responses did cover the four evaluation points but were brief or did not use the Dement and Kleitman study as examples which meant the response scored in the lower bands. Other responses included three evaluation points that were thorough, logical and well argued with a fourth point that was brief which meant the response did not reach the top band in the main. Candidates need to know that any description of the study does not gain credit as the question is testing their evaluation skills only. In addition, it was noted that in this series more candidates were following a GRAVE approach to this question (generalisability, reliability, application, validity, ethics). Therefore, some candidates appeared to be producing prepared essays for Dement and Kleitman without one of their points being about case studies. A response that does not have one evaluation point about the named issue can only score limited credit, as it does not fully answer the question set. There were some responses in this series that had no context to Dement and Kleitman at all, producing four or fewer evaluation points that were generic. These scored marks in the Level 1 band.

PSYCHOLOGY

Paper 9990/21 Research Methods

Key messages

- This is a question paper about research methods, which requires candidates to answer a range of question types, including ones about the core studies in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. Some errors and omissions were evident in each of these skills in many candidates. It is essential that candidates are prepared for the skills of recalling concepts and of using this knowledge.
- Practising the application of ideas, especially to novel scenarios and in learners' own practical activities, is important on this paper. This helps candidates in two ways:
 - Candidates needed to be able to apply research methods terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data.
 - Candidates must take note of questions which indicate the need for a link. When a question says 'in this study', or makes direct reference to the scenario, responses must go beyond simply describing or evaluating, they must contextualise the answer in a relevant way. Candidates therefore need to be prepared for questions using this format and practice can help them to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.
- **Question 10** in this paper requires candidates to produce an original design for a novel research question; this 'creative' process requires practice. Furthermore, to learn to identify flaws in a design (whether their own, as in **Question 10**, or one from a novel scenario for example in **Section B**) also relies on having had experience of practical problems in conducting studies. This is a high-level skill and can be developed through practical work with designing and conducting small studies in class or through the discussion of novel scenarios. It is helpful to prepare candidates with an overall structure, which can be closely tailored to the requirements of an individual question, such as the required research method and the scenario.

General comments

Candidates were able to access marks across the whole paper. However, very few were consistently able to access the additional marks for linking their response to the scenarios, thus limiting performance as a whole.

For instance, many questions included the words 'in this study' and answers in response to this component of the question were frequently absent. Some candidates demonstrated a good grasp of definitions for a range of psychological concepts and were able to access marks with these.

Question 10 was sometimes well answered although responses often lacked essential details for a structured observation. Some candidates did not mention this method at all, often incorrectly focussing on a laboratory experiment.

Although some candidates left some answer spaces blank, there was no observable pattern in questions that were left unanswered on this paper. Furthermore, candidates appeared to make appropriate use of additional paper for extended answers and some used the blank pages to continue writing responses (which is acceptable). Whenever an answer is continued it is advisable to indicate this and to clearly label additional content with the correct question number and part.

Comments on specific questions

Section A

Question 1

- (a) Many answers correctly identified the hypothesis as being one tailed, but the mark could only be awarded if a reason for the answer was given, as the question required. Many answers referred to the stem and wrote 'because positive reinforcement will be better than imagery exposure'. Some answers did not score the mark because 'it predicts a direction' is too vague. Some answers incorrectly suggested that the hypothesis was two-tailed.
- (b) This question part was not generally answered well because most candidates did not refer to the conditions of the IV and the DV. A perfect answer would be 'Any difference between phobic reactions (DV) after positive reinforcement or imagery exposure therapy (IV) is due to chance'. An equally acceptable answer would be 'There will be no difference between reduction in phobia in participants having positive reinforcement or imagery exposure therapy' this again including the IV and DV.
- (c) Most candidates scored full marks by providing a way in which phobic reactions could be measured. Some candidates referred to a 'feelings thermometer', others to 'a rating scale of fear' and some to a measure of behavioural reactions such as the number of times a particular behaviour occurred. No marks were awarded for qualitative measures.
- (d) Although many answers scored full marks, many answers scored partial marks for correct answers that were not sufficiently detailed. For example, answers such as 'it is only a rating' and 'it does not show why' or 'it is only a number' scored limited credit.

Question 2

- (a) Many candidates answered this correctly. However, some candidates confused standardisation and controls. The difference is that controls aim to minimise differences between levels of the IV, whereas standardisation aims to minimise differences between participants.
- (b) Many responses scored full marks for this question, but many did not, and needed to focus on the question set. Candidates are advised to read questions very carefully. The question stated: 'three ways in which the *laboratory environment* was standardised' meaning that reference to 'no alcohol or caffeine', or 'all participants receive the same instructions' scored no marks as they are not part of the laboratory environment. Correct answers included the electrodes near eyes, the EEG, the voice recorder, and a quiet, dark room, for example.

Question 3

Many candidates were unable to state an advantage of the standard deviation, many answers merely defined it or gave an example of how it is calculated.

Question 4

Most candidates scored a mark for referring to the animal ethical guideline of housing. However, many candidates did not refer to chimpanzees being housed socially as stated in the question and achieved partial credit. Candidates needed to address this for full marks, for example 'chimpanzees are social animals so housing them socially is appropriate and any isolation would have been distressing'.

Question 5

- (a) Most answers correctly identified for one mark that a volunteer sample is 'self-selecting' where participants choose to participate. A number of candidates stated that 'a volunteer sample is where participants volunteer' which could not be credited as it did not demonstrate candidates' understanding. For the second mark the correct answer was that Baron-Cohen et al. recruited some participants using adverts in the Autistic Society magazine / through Autism support groups. This was the only acceptable answer because groups 2, 3 and 4 were not self-selecting. Some candidates did not answer the second component of this question.

- (b) Most candidates scored full marks in response to this question. For the advantage, 'low drop-out rate' and 'participants come to the researcher' were most common. For the disadvantage, 'volunteers are all similar so can't generalise from them' and 'volunteers are not representative' were most common.

Question 6

For full marks there needed to be a definition, some explanation and an example. Most candidates opted for the Bandura study as an example for inter-rater reliability, where $r = 0.89$ was found for ratings of pre-existing levels of aggression. Some candidates used the Piliavin et al. (1969) study as an example, but this was incorrect because the two observers observed different things. Some candidates did not appear to know either term and scored no marks.

Section B

Question 7

- (a) Some candidates correctly stated that a semi-structured interview has fixed questions (that are asked in the same order) and variable questions (questions that are specific to the interviewee). A common error was to state that a semi-structured interview has both open and closed questions. Being structured, semi-structured or unstructured has nothing to do with the type of question being asked. Each of these interview types can be entirely closed, entirely open or mixed.
- (b) An open question asks for some description, or for a reason or explanation rather than just the interviewee choosing a single word or number. Answers suggesting 'Describe how well you sleep in winter' or 'Why do you think you sleep better in the summer' were creditable. Answers suggesting Freya ask 'Do you sleep better in the summer or winter' were not creditable because this is closed with the interviewee stating 'summer (or winter)' in response.
- (c) A correct advantage could be that the semi-structured interview meant that 'different questions could be asked to different participants' for partial credit. For full credit the answer needed to be linked to Freya's study, for instance, by adding 'because people may differ in their views about what better sleep is'. Many candidates suggested that the advantage was that both open and closed questions could be asked, resulting from their incorrect answer in **Question 7(a)**.

Question 8

- (a) (i) This question was answered correctly by nearly all candidates.
- (ii) This question was correctly answered by most candidates. A few candidates incorrectly drew a positive correlation, no correlation or provided a creative invention that did not belong on a scattergraph.
- (b) Many candidates stated correctly that 'correlation cannot assume causation' for partial credit. Many went on to relate this to Claude, by stating for example that 'there may be other factors such as some people being more (or less) hungry to begin with' and so scored full marks. Many candidates could not relate their answer to Claude, and many suggested that Claude *could* conclude that eating faster makes people feel hungry because a negative correlation was found. However, whether a positive or negative correlation, it is still the case that correlation cannot assume causation.
- (c) (i) Many candidates scored both available marks by providing an ethical strength (e.g. participants give informed consent) and linking it to Claude's study (e.g. because he asks them to rate their hunger). Some candidates gave a general ethical strength (e.g. maintaining confidentiality as names were not asked for) which needed a link to Claude's study to access full credit.
- (ii) Answers to this question part followed the same pattern as seen in **Question 8(c)(i)**. A number of candidates correctly stated that 'Claude was unethical because when he observed them eating he had not gained their informed consent'. This scored full marks because the point about informed consent is clearly related to Claude's study of eating behaviour.

- (d) Very few candidates were awarded full marks because they did not fully answer the question. In this instance the question required the words 'may not be valid' to be addressed. Without this only partial credit could be awarded.

Question 9

- (a) Reading the stem of the question, the 'introductory words', is essential to answering the question correctly. In this instance the stem informed that the experiment compared distracting noise with no noise. The control condition, as this question part required to be stated, was 'playing the memory game without the noise'.
- (b) Many candidates gave a basic statement such as 'it lowers validity' for partial credit, but an explanation was needed for full credit. Candidates scoring full marks wrote answers such as 'so they all started from the same baseline ability avoiding individual differences in ability or amount of previous practice'. In this case, a link to Jia's study was not required by the question.
- (c) (i) The question referred to repeated measures in Jia's study and candidates needed to give one advantage and relate this to Jia's study. Whilst many candidates did this for full marks, many candidates did not, and achieved partial marks.
- (ii) The question referred to order effects in Jia's study so answers needed to be related to Jia's study to achieve full marks. Most candidates wrote about order effects (practice or fatigue being equally acceptable) but Jia's study needed to be mentioned, for instance 'participants might learn how the game works or get better at the game'.
- (iii) Most candidates opted for counterbalancing and often provided detailed elaboration about how counterbalancing works, but frequently there was no mention of how this related to Jia's study, as required by the question.

Section C

Question 10

- (a) A range of marks was achieved on this question. Candidates differed widely in terms of how aware they were of a structured observation, so there were often major omissions. Some candidates did not mention observation in their answer and some candidates incorrectly tried to apply an experimental design with IV, DV and other features of an experiment.

It is helpful to prepare candidates with an overall structure for this question type, which can be closely tailored to the requirements of an individual question, such as the required research method and the scenario.

The mark scheme requires focus on the named method, and in this case it was expected that for level 3 answers the full range of features of observations would be evident. These included: *structured observation* i.e. the behaviours to be recorded (defined and operationalised); how this data would be gathered, because it was conducted at lunchtime it is a *naturalistic observation*. The observer, Pihu, could gather the data either *overtly* or *covertly* and she could do this either as a *participant* or a *non-participant observer*.

Level 2 answers had some of the essential terminology outlined above (i.e. they had one major omission) and Level 1 answers often used the term structured observation were not able to demonstrate understanding of the term. Often these answers wrote a lot of detail about the sample, and about the type of data i.e. quantitative. Although aspects such as these are relevant, they are minor considerations and limited credit will be available if the major considerations are absent.

- (b) Candidates scoring higher and full marks suggested that as Pihu was a single observer she might miss some behaviours shown by the children. Suggestions about how this could be resolved included having more than one observer and checking the reliability amongst the observers; using CCTV to record behaviour and analysing it later with more than one observer; using time sampling to record every five seconds (for example) rather than event sampling. Although the question stated not to refer to ethics or sample, some candidates suggested a larger of different sample, which could not be credited.

PSYCHOLOGY

Paper 9990/22 Research Methods

Key messages

- This is a question paper about research methods, which requires candidates to answer a range of question types, including ones about the core studies, in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. Some flaws were evident in each of these skills in many candidates. It is therefore essential that candidates are prepared for the skills of recalling concepts and of using this knowledge.
- Practising the application of ideas, especially to novel scenarios and in learners' own practical activities, is important to success on this paper. This could have helped candidates in two ways:
 - Candidates needed to be able to apply research methods' terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data
 - Candidates must take note of questions which indicate the need for a link. When a question says 'in this study', or makes direct reference to the scenario, responses must go beyond simply describing or evaluating, they must contextualise the answer in a relevant way. Candidates therefore need to be prepared for questions using this format and practice can help them to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.
- **Question 10** in this paper requires candidates to produce an original design for a novel research question; this 'creative' process requires practice. Furthermore, to learn to identify flaws in a design (whether their own, as in **Question 10**, or one from a novel scenario for example in **Section B**) also relies on having had experience of practical problems in conducting studies. This is a high-level skill, and can be developed through practical work with designing and conducting small studies in class or through the discussion of novel scenarios. The overall format of **Question 10(a)**, and the nature of the mark scheme, is consistent between papers and years. Therefore, it is helpful to prepare candidates with an overall structure, which can be closely tailored to the requirements of an individual question, such as the required research method and the scenario.

General comments

In general, candidates were able to access marks across the whole paper. However, very few were consistently able to access the additional marks for linking their response to the scenarios, thus limiting performance as a whole. Nevertheless, some candidates demonstrated a good grasp of a range of psychological concepts and so were able to access the basic marks with these.

Candidates across the ability range were able to demonstrate some knowledge of a range of aspects of research methods in this paper.

This examination tested a cross-section of psychological skills and on some candidates showed limited success, such as in **Questions 4(a)** and **(b)**, where responses were often linked to the study as a whole rather than the measure of Milgram's 'Primary dependent variable', **9(a)**, where ethical guidelines relating to animals were not used and **9(c)** which showed a lack of understanding of validity. Note also that access to full marks on **Questions 1(b)** and **9(b)** was limited by omitting to respond to the instruction to link to the scenario ('...in this study'). Finally, there was some confusion between independent variables and the levels or conditions of the independent variable of several questions.

Question 10 was sometimes well answered although responses often lacked one of the necessary key details for a semi-structured interview, commonly the nature of the semi-structured interview itself.

Comments on specific questions

Question 1

- (a) This question was well answered, with most candidates being able to identify that the main research method was a field experiment. The most common incorrect response was 'observation', which was the technique used to measure the dependent variable. Another common error was to answer with a design (usually correct) rather than a method. A small number of candidates gave incorrect responses of 'natural experiment' or 'field study'.
- (b) Most candidates who had correctly identified the method gained at least 1 mark in this question part, with only partial marks typically being the result of not providing a link in response to 'in this study'.

Question 2

- (a) Some candidates were able to gain the mark for this question part. However, many of those who did not earn the mark identified that this was a directional hypothesis but then either repeated that it had a 'direction' without relating this to the IV and DV, or they repeated the question. Such candidates could not earn the mark as they had not responded to the instruction to 'Include a reason for your answer'.
- (b)(i) Many candidates understood the term 'operationalise' and gained 2 marks here. A significant minority, however, said how they would measure recall (e.g. a memory test) without defining what would be counted as 'recall'.
- (ii) This question part was very well answered, showing that candidates clearly understood that the concept of operationalisation can be applied to different contexts.

Question 3

This question was very well answered, with most candidates gaining full marks. Those who did not typically did not follow the instruction to use an example from the biological approach and instead offered core studies such as Andrade, Baron-Cohen et al. or Bandura et al. The most popular choice was Canli et al., although Schachter and Singer was also often used. Dement and Kleitman was less often used.

Question 4

- (a) Many candidates focussed on the validity of the whole study rather than of the measure. Another common problem was for candidates to write about reliability rather than validity.
- (b) Most candidates tended to respond in relation to the entire procedure rather than concentrating on the measure of voltage (the 'primary dependent variable').

Question 5

- (a) Most candidates identified that participant variables can be the consequence of individual differences. However, candidates often assumed that the two terms were synonymous, i.e. they did not continue to the crucial point about the effect of participant variables in a study. Such responses did not, therefore, earn the mark.
- (b) Although there were many good, thoughtful answers here that clearly related to Schachter and Singer as required by the question, there were also a large number of responses that were not clearly linked to the study, so could not earn the mark.

Question 6

This question was answered competently by many candidates. Where a candidate knew the difference between the two designs and could describe this they typically earned at least four marks. Better responses also offered one or more examples to support this. However, some candidates attempted to use 'examples' which were neither design (e.g. case studies) or they gave only the author of the study with no details to link them to the point being made, such as naming the conditions participated in to demonstrate the 'difference' between the two designs. Responses sometimes did not address the 'similarity' demand of the question (so could not earn full marks).

Question 7

- (a) Most candidates were able to identify two ethical considerations for the study, with the majority achieving three or four marks. There was some confusion about the meaning of the terms 'confidentiality' and 'privacy'.
- (b) Some candidates were unable to earn the mark as they simply repeated the question, suggesting it was an observation in the natural environment or setting. There were, nevertheless, good answers here where candidates referred to the situation being unchanged from the normal play area or that the researcher had not manipulated or interfered with the setting. Another common error was to describe a natural experiment rather than a naturalistic observation.
- (c) Candidates often showed an understanding of one of the features clearly, more often 'covert' than 'non-participant'. However, responses often lacked detail and rarely fully explained both 'covert' and 'non-participant'. Some responses included a lot of repetition.

Question 8

- (a) **Question 8** appeared to be misunderstood by many candidates, with the majority not addressing the reference in the question to a correlation.

As a consequence, in **part 8(a)** the responses sometimes did not give a measure of 'frustration' that could be correlated with 'anger'. For example, the measures offered would have given qualitative data or data in named categories, so the responses could not earn credit. Where some answers did come close to giving a behavioural measure, they often did not give a scale of behaviour. Better answers covered a range of ways to obtain continuous data, both psychological and physiological.

- (b) Most candidates who did not gain credit here either wrote about a difference (rather than a correlation) or suggested that there would not be a positive correlation. Some used different variables such as waiting time in traffic. Better responses considered ideas such as low demand characteristics if the drivers were unaware that they were being watched so they would not try to look more calm than they really were.
- (c) Most candidates who did not get credit here either wrote about a difference (rather than a correlation) or that there would not be a positive correlation. Some used different variables such as waiting time in traffic, so could not earn credit. There were, nevertheless, many straightforward, well-constructed responses.
- (d) Most candidates identified a measure of central tendency, but then could not give an effective reason. This was despite the fact that it was often evident in responses where the candidate had chosen to identify the mean that they knew how it was calculated. It would therefore have been a small step to identify the advantage of it including the value of each data point. Instead, many answers gave incorrect 'justification', such as 'using all the data' or 'all the scores', but such statements also apply to the median and the mode.

Question 9

- (a) Animal guidelines were not always referenced in responses, with candidates inappropriately quoting human guidelines instead. It is essential that candidates are able to recognise and apply ethical guideline for using animals. Nevertheless, many candidates scored at least one mark for a point that related to 'pain' or 'distress' in the animals. A small number of candidates did not relate their answer to the context of the study.
- (b) The most common creditworthy answers referred the omnivorous nature of the rat. Responses that did not earn credit most often raised ethical issues.
- (c) Many answers lacked clarity about whether the explanation given was suggesting the measure was valid or not. This appeared to reflect a general lack of understanding of validity with answers for example referring to points about reliability or ethics. Responses arguing that the measure was valid were typically more successful than those arguing that the measure was invalid.
- (d) This question was not well answered. Many candidates either referenced the rat observation study in an irrelevant way (i.e. one that was not typical of observations in general) or referred to the ability to collect qualitative and quantitative data, which is not a particular strength of observations; many research methods can obtain both depending on the design. Better responses considered the collection of first-hand data or considered the specific benefits of a particular type of observation.

Question 10

- (a) A range of marks was achieved on this question. Candidates differed widely in terms of how aware they were of an effective style of response to this question, so responses often lacked major elements. This most often took the form of not referring to the unstructured and structured parts of a semi-structured interview. This limited marks to Level 1. Other candidates were able to produce a response with a clear structure, covering all three major elements and achieved higher marks. The overall format of **Question 10(a)**, and the nature of the mark scheme, is consistent between papers and years. Therefore, it is helpful to prepare candidates with an overall structure, which can be closely tailored to the requirements of an individual question, such as the required research method and the scenario.

A common error was that candidates assumed a semi-structured interview was one that used open and closed questions (sometimes referred to as structured and unstructured questions). Other responses suggested that the 'fixed' questions in a semi-structured interview meant 'closed' questions and the 'flexible' questions in a semi-structured interview meant 'open' questions.

The majority of responses reaching Level 2 were unable to reach Level 3 because they lacked detail rather than because they had not considered ethical issues.

A significant number of responses were replications of the Dement and Kleitman study, rather than a semi-structured interview, so did not address the major elements clearly and contained much irrelevant detail. Even when this was not the case, responses often included irrelevant reference to independent and dependent variables.

Ethical considerations were often covered effectively but, as in **Question 7(a)**, there was some confusion between 'confidentiality' and 'privacy'. In addition, 'debriefing' (typically confused with 'briefing') and 'informed consent' were not clearly understood by some candidates.

- (b) Most candidates who had focused on an interview in **part 10(a)** achieved marks here. However, a significant minority of candidates answered with reference to experimental methods so earned a maximum of two. Those who claimed that participants might lie often failed to explain the reasoning behind this assertion, to link it to their study or give a clear solution.

Some candidates referred to ethics or sampling as a weakness, which were excluded by the question and could not be credited.

PSYCHOLOGY

Paper 9990/23 Research Methods

Key messages

- This is a question paper about research methods, which requires candidates to answer a range of question types, including ones about the core studies, in relation to research methods, terms and concepts used to describe or evaluate research methodology, and application of this knowledge to both familiar and unfamiliar contexts. Some flaws were evident in each of these skills in many candidates. It is therefore essential that candidates are prepared for the skills of recalling concepts and of using this knowledge.
- Practising the application of ideas, especially to novel scenarios and in learners' own practical activities, is important to success on this paper. This could have helped candidates in two ways:
 - Candidates needed to be able to apply research methods' terms and concepts to scenarios presented in questions. These can include, for example, planning, criticising or developing designs or analysing data.
 - Candidates must take note of questions which indicate the need for a link. When a question says 'in this study', or makes direct reference to the scenario, responses must go beyond simply describing or evaluating, they must contextualise the answer in a relevant way. Candidates therefore need to be prepared for questions using this format and practice can help them to learn both how to extract relevant ideas and how to make novel suggestions based on scenarios.
- **Question 10** in this paper requires candidates to produce an original design for a novel research question; this 'creative' process requires practice. Furthermore, to learn to identify flaws in a design (whether their own, as in **Question 10**, or one from a novel scenario for example in **Section B**) also relies on having had experience of practical problems in conducting studies. This is a high-level skill, and can be developed through practical work with designing and conducting small studies in class or through the discussion of novel scenarios. The overall format of **Question 10(a)**, and the nature of the mark scheme, is consistent between papers and years. Therefore, it is helpful to prepare candidates with an overall structure, which can be closely tailored to the requirements of an individual question, such as the required research method and the scenario.

General comments

In general, candidates were able to access marks across the whole paper. However, very few were consistently able to access the additional marks for linking their response to the scenarios, thus limiting performance as a whole. Nevertheless, some candidates demonstrated a good grasp of a range of psychological concepts and so were able to access the basic marks with these.

Candidates across the ability range were able to demonstrate some knowledge of a range of aspects of research methods in this paper.

Candidates need to practise the requirement for questions asking '...in this study', for which their answers must be contextualised to the named study or given situation, such as in **Questions 4(b)** and **7(b)(ii)**.

Finally, a common error was based on a misunderstanding of the meaning of 'demand characteristics'. These are features (the 'characteristics') of the situation that indicate to participants what is expected to happen or is 'demanded of them' in the study (the demands). It therefore *is* the case that 'reducing demand characteristics should produce more natural behaviour' but it is *not* the case, as many candidates attempted to claim, that 'more natural behaviour reduces demand characteristics'. In addition, some candidates incorrectly suggested that counterbalancing reduces demand characteristics.

Question 10 was sometimes well answered although many candidates did not demonstrate an understanding of the need to collect continuous data for both measures in order to perform a correlation.

Comments on specific questions

Question 1

Only a minority of candidates used only the word 'deceive/deceiving' to explain deception, illustrating that they understand the principle that you cannot define a word with itself. A more common reason for not gaining a mark was the belief that deception was simply 'not informing' participants or saying that they were 'not told the truth'. This is more exactly failure on the part of the researcher to gain informed consent. Deception, in contrast, is when participants are actively misled, given false aims or lied to about aspects of the study. It is important that this distinction is clear in the minds and responses of candidates.

When asked for an example from the social approach, many candidates answered successfully, commonly citing Milgram's or Piliavin et al.'s procedures. However, a sizable minority gave examples from other areas (including biological, cognitive and learning) and a smaller number gave no example at all.

Question 2

- (a) This question part was well answered. Most candidates gave directional hypotheses and the majority of these had operationalised both variables, so scored full marks. A minority of candidates wrote correlational hypotheses or were unable to construct a hypothesis.
- (b) This question part was also fairly well answered. Many candidates wrote null hypotheses although a minority either wrote alternative hypothesis or were unable to provide any answer relating to a hypothesis.

Question 3

This question was not well answered. Although many candidates were able to suggest appropriate ideas, few were able to follow these through to provide an advantage or any detail. For example, some candidates identified that it was easier to impose controls on animals than on people, but were unable to explain why this was so, or why it was an advantage. The best answers were provided by candidates who chose to write about the advantage of animals being less responsive to demand characteristics because they are less likely to work out the aim of the study or to try to 'please the experimenter'.

Question 4

- (a) Responses to this question were very variable. Some candidates were able to give clear, detailed and accurate descriptions of the behavioural records or the questionnaire scales. However, many others gave confused answers about 'copying' the stooge or referred directly to items recorded in response to the euphoric stooge.
- (b) Many candidates were able to gain partial marks on this question, but fewer were able to link this to the context. Candidates need to practice the requirement for questions asking '...in this study', for which their answers must be contextualised to the named study or given situation. In this case a link was needed to the operationalisation of anger in the study by Schachter and Singer (that they had just described in **part 4(a)**).

Question 5

- (a) Although there was some confusion over the exact meaning of the terms, this question often elicited at least two marks. However, candidates rarely added much to their answers beyond stating 'Bandura et al. used one-way mirrors', and this was often a repetition of a more general point. Other candidates suggested (incorrectly) that Bandura et al. observed using CCTV.
- (b) This question part was generally well answered, with the majority of candidates responding correctly with one detailed point rather than two weak advantages. However, this question also elicited a common error based on a misunderstanding of the meaning of 'demand characteristics' (see General Comments).

Question 6

Candidates' responses to this question were generally good and relevant. Many candidates provided two or three differences and these were often accompanied by examples. The best candidates offered a range of differences and illustrated these with an example from a case study followed by a contrasting example from another method before moving on to their next difference.

Section B

Question 7

- (a) Many candidates were able to answer this question well, suggesting a range of effective ways to measure this, most often more or less complex ways to determine whether the child thought they had 'won' or not. The simplest way was to ask them a direct question about who they believed won, themselves or Liam. Other, more complex ideas were also creditworthy, such as 'ask them to write the story of the game out before and after hearing Liam's diary'. A small but significant minority of candidates did not give enough detail to 'measure' the children's false memories, for example simply stating 'by questionnaire' or 'using a self report'.
- (b) (i) Many candidates were able to offer a suitable control condition, such as Liam not reading from his diary or telling the children the true version of events. However, other candidates suggested that the control condition should be one in which the child themselves wins the game. This would only be a control condition if the participants were then told a false story in which they had lost (this would control for whether it is easier to implant 'good' memories than 'bad' ones). Two other sources of error were to try to change two variables at once or to suggest how Liam should control extraneous variables rather than offering a suggestion for a control condition.
- (ii) Although many candidates were able to gain one mark in response to this question, very few were able to contextualise their answer, i.e. they were unable to identify what the control condition controlling for.
- (c) Standardisation is a means to reduce differences that could arise in the procedure between participants. These are differences that could occur once the procedure, such as the independent variable, has been decided. The initial scenario refers to 'the game' indicating that Liam and the child all played the same game. Standardisation could therefore involve keeping the way that the game was played the same, such as having rigged moves, the length of time they played the game for or winning by the same number of points. Such suggestions earned credit.

Question 8

- (a), (b) These question parts were very well answered as very few candidates muddled up the IV and DV.
- (c) This question part was well answered. Most candidates were able to give an appropriate generic definition and many successfully contextualised this to the stem.
- (d) (i) This question part produced a range of answers, with many candidates earning at least partial marks. The 'ABBA' mnemonic, where used, seemed helpful to candidates to enable them to correctly describe how counterbalancing is achieved.
- (ii) This question part was not so well answered as **part 8(d)(i)**. Whilst many candidates were able to identify reducing order effects (or either fatigue or practice effects) as an advantage, few were able to suggest what these effects might be in Olivia's study. A minority of candidates incorrectly suggested that this technique reduced demand characteristics.

Question 9

- (a) (i) This question part was well answered, with many candidates suggesting appropriate closed questions. However, it is important that when closed questions are specifically demanded that the answer choices are stated.
- (ii) Although many candidates gained partial marks in response to this question part, very few were able to contextualise their answer, i.e. they were unable to link the disadvantage they had identified to a specific aspect of Huan's study.

- (b) Like question **part 9(a)(i)**, this question part was also well answered.
- (c) This question was sometimes well answered, with a range of good, linked detail. For example, candidates made such suggestions as 'Interviews have face-to-face contact to allow participants to build up trust in the interviewer, which is good as mental health issues may be personal/sensitive and it allows them to have confidence' and 'The interviewer can offer reassurance but a questionnaire cannot, which is good because mental health issues can be hard to understand/can be worrying'.
- Responses that earned only partial marks tended to be generic, lacking the link to attitudes to mental illness.
- (d) Although there were some good responses to this question part, most were only partial answers as they were not contextualised so could only gain one of the two available marks.

Question 10

- (a) A range of marks was achieved on this question, partly because candidates differed widely in terms of how aware they were of an effective style of response to this question. However, there were two major areas of misunderstanding in responses to this question. Firstly, many candidates attempted to describe an independent variable and a dependent variable, rather than, as they should have done, two measured variables. Secondly, many candidates did not demonstrate an understanding of the need to collect continuous data for both measures in order to perform a correlation; categorical data (such as 'yes/no' or 'did/did not' cannot be correlated).
- Nevertheless, many candidates provided imaginative and effective ways to measure the variables, including many ethical tests of obedience, such as carrying books or fetching things from a car. Other candidates made effective use of video scenarios. There were also good suggestions for measures of kindness, such as the amount of money given to charity.
- The majority of responses reaching Level 2 were unable to reach Level 3 because they lacked detail rather than because they had not considered ethical issues.
- (b) Most candidates who had provided detailed descriptions of the way they would measure the two variables in **part 10(a)** were able to achieve two or four marks here (generic problem and solution or one related to their study). However, a significant minority of candidates who had answered **10(a)** with reference to an experimental study were only able to earn a maximum of two.
- Some candidates referred to ethics or sampling as a weakness, which were excluded by the question and could not be credited.

PSYCHOLOGY

Paper 9990/31 Specialist Options: Theory

Key messages

Question 1(a), 3(a), 5(a) and 7(a) –

It is important that candidates are made aware of the terminology/concepts identified in the syllabus as well as key terms used in named theories and studies as some were unable to identify and/or define the terms given in these types of questions. Creating a glossary of key terms, revision of terminology using flash cards and class quizzes on terminology could prove useful. Where the response gave an example to help define the term this often achieved full marks. These questions are worth 2 marks and a brief response is appropriate.

Question 1(b), 3(b), 5(b) and 7(b) –

These questions could ask the candidate to describe a theory, model, or part of a study. These questions could also ask the candidate to describe a part of one of the named studies from the syllabus or a summary of the key features of the study. This question is worth 4 marks and the candidates should write a more extended answer. An error shown by some candidates was to describe a theory or technique that was from the correct part of the syllabus but did not address the question. There were also some general responses that were not specifically directed at the question.

Questions 1(c), 3(c), 5(c) and 7(c) –

These questions could require the candidate to explain two strengths or weaknesses of what they have described in the **part (b)** of the question. The question could also ask the candidates to make a comparison or to evaluate using a specific issue, such as validity. This question is worth 6 marks so the candidate should write a more extended answer for each issue raised. Some responses were very detailed for one issue but then only briefly discussed the second issue. In addition, some of the responses were general and not specific to the theory, model or study named in the question. To improve, responses should give specific examples to achieve the top band.

Questions 2(a), 4(a), 6(a) and 8(a) –

This question will always come from one of the bullet points in the syllabus. Candidates could describe the three or four studies, theories, models or techniques identified in the syllabus under the appropriate bullet point. For this exam, some of the answers did not give all of the studies/theories under the bullet point, used the incorrect bullet point or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, models or techniques but this would need to be a very detailed description. Ideally the response would describe three of the bullet points in detail with excellent understanding and good use of terminology throughout. These types of responses often achieved the top band. It is also important that the descriptions are linked to the topic area named in the syllabus. It could be useful for candidates to do revision notes with the title of each bullet point as the header in their notes.

Questions 2(b), 4(b), 6(b) and 8(b) –

This question will always ask the candidate to evaluate the theories, studies and/or techniques described in **part (a)** of the question. The response must include at least two evaluation issues, including the named issue, in order to be considered to have presented a range of issues to achieve the top band. However, most responses that evaluated two issues in this exam achieved in the lower bands due to the response being superficial and often with little analysis. Some responses that considered at least three issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the theories, models, studies and techniques described in the **part (a)** of the

answer. The candidate must also provide some form of analysis. This could be done by discussing the strengths and weaknesses of the issue being considered, presenting a counter-argument to the issue under discussion or comparing the issue between two studies and/or theories. A conclusion at the end of each issue would be helpful in order to show excellent understanding of the issue under discussion. In order to achieve the requirements of the level 3 and 4 band descriptors it would be best if the response was structured by issue rather than by study and/or theory. It would also be ideal for the response to start with the named issue to make sure the answer covers this requirement of the question.

Quite a few of the answers were structured by technique/theory/study rather than by the issue which often led the response to be quite superficial and repetitive. A number of the responses were able to demonstrate the skill of analysis. Candidates should be aware this question is worth 10 marks and attempt to include an appropriate amount of information.

General comments

The marks achieved by candidates for this series of the 9990 syllabus achieved across the full range of the mark band. Many of the candidates were very well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. However, some candidates were not as well prepared and showed limited knowledge and understanding with brief and/or superficial responses. These candidates often had limited evaluation skills.

Time management for this paper was good for the vast majority candidates and most attempted all questions that were required. Some candidates spent too long on the first option and left themselves less time to answer their second option. A number of candidates did not respond to one or more of the questions asked in the option area. A very small number of the candidates attempted to respond to more than two topic areas but often did not attempt all of the questions for each option chosen. These responses achieved at the lower end of the mark band.

The questions on abnormality and health were the more popular choice of questions.

Comments on specific questions

Psychology and Abnormality

Question 1(a)

This question was answered well with the majority of responses citing at least two characteristics of schizophrenia, mentioned positive and negative symptoms and/or stated that it is a psychotic disorder. A significant minority of responses wrote rather vague definitions, for example, a disorder that affects emotions, behaviours and cognition. This could apply to other disorders too.

Question 1(b)

Most responses were basic with some details given of the genetic explanation of schizophrenia. Most were able to state that schizophrenia is inherited, and many gave at least one correct concordance rate between twins. Better responses gave the correct concordance rates between monozygotic and dizygotic twins and a few were able to explain what this meant to achieve in the higher mark band. However, some responses misinterpreted this question and described the study by Gottesman and Shields rather than the genetic theory. A significant minority of answers demonstrated confusion by stating that monozygotic twins shared 50% DNA and dizygotic 9% rather than recognising what concordance rates means.

Question 1(c)

Many responses attempted to give both a similarity and a difference between the cognitive and genetic explanations. Most were able to achieve in level 1 or level 2 by identifying an appropriate comparison point and sometimes giving some development of this point. Popular points included the nature/nurture debate, the scientific nature of the explanations and reductionism. However, many of the responses began their response with a very detailed description of the cognitive explanation of schizophrenia. As this part of the response did not give either a similarity or a weakness no credit was given for this description. Many responses attempted to explain how genetic explanations were nature and cognitive nurture, but this was often simply stated rather than explained.

Question 2(a)

Many responses were detailed, accurate and coherent with a good use of psychological terminology. Most responses referred to biochemical treatments, ECT, cognitive restructuring and REBT. Many responses were also well focussed on how the treatment reduces symptoms of depression. Some responses included description of typical and atypical antipsychotics which was not creditworthy. A significant minority of responses found it difficult to distinguish clearly between CBT and REBT and tended to confuse or merge these two treatments.

Question 2(b)

The responses to this question covered the full range of the mark band. Better responses used the issues as a starting point and compared the treatments that had been described in **part (a)**. The vast majority addressed the named issue of ethics. Some did provide analysis of this issue and made comparisons of the ethics of the treatments described in **part (a)**. Weaker responses tended to state that the treatments were not ethical but with little or no discussion to explain why. A range of other points were considered including application to everyday life, appropriateness of the treatments and effectiveness of the treatments. Weaker responses often evaluated the treatments in turn with few examples to back up their points and little analysis given. A small number of responses continued to describe the treatments from **part (a)** which was not creditworthy.

Psychology and Consumer Behaviour

Question 3(a)

There were a few good explanations of choice heuristics in consumer decision-making. Many responses were able to state that it was a mental shortcut, and some linked this to consumer decision-making. A few referred to the concepts of availability, representativeness or anchoring and some responses gave an example of this to explain the term given. A significant number of candidates gave an incorrect definition for this question.

Question 3(b)

Some responses were able to outline two aims of the study by Wansink et al. (1998) on consumer decision-making. The most common responses were how many units of a product consumers buy and multi-unit pricing. The better responses gave examples alongside the aim stated, clearly demonstrating a good understanding of the study. A number of responses were left blank with no attempt at an answer.

Question 3(c)

For those candidates who gave a good response to **part (b)**, many were able to achieve at least level 2 and some level 3 for their response to this question. Those that gave confused or incorrect responses to **part (b)**, often achieved in level 1 or gave no response to this question. Popular points raised included population validity/generalisability and ecological validity of the laboratory and field studies conducted by Wansink et al. Weaker responses identified the issue but did not clearly link it to any of the studies conducted by Wansink et al.

Question 4(a)

Some responses gave a good outline of the AIDA model, hierarchy of effects model and changing attitudes and models of communication. Some also referred to the Yale model of communication in the context of advertising. However, many responses were from other sections of the syllabus and were not describing advertising or communication models. Some responses described marketing models and studies rather than advertising. Some of these responses were given limited credit if the response was linked to an advertising or communication model.

Question 4(b)

The majority of the responses to this question and tended to structure their response by model rather than by issue. Most attempted to discuss the named issue of application to everyday life and those that gave the correct response in **part (a)** were able to explain how the models could be used by companies to improve their advertising and therefore improve sales. Some responses attempted to discuss other issues and raised points such as ethnocentrism and reductionism with some explaining the holistic nature of many of the models. Weaker responses referred to the models as if they were pieces of research with participants and looked at, for example, the generalisability of the samples used which was not creditworthy.

Psychology and Health

Question 5(a)

Most responses identified what was meant by a self-report by stating that it was collecting information using an interview or questionnaire. Some responses were then able to link this with non-adherence to medical advice and this was sometimes done through an example. Weaker responses identified that what a self-report is but there was no link to non-adherence to medical advice.

Question 5(b)(i)

There were some strong responses to this question with some identifying two beliefs of the health belief model such as cost/benefit analysis, perceived vulnerability or perceived susceptibility. Some responses gave an example of the belief rather than identifying the terms used in the model and these types of responses were credited. Some responses were very long for two marks. Some referred to features of the health belief model that were not beliefs (e.g. demographics) and received no credit.

Question 5(b)(ii)

This was well answered by many of the candidates. The majority of answers used the cost/benefit belief and then linked this to non-adherence. Some responses described different types of non-adherence but did not link this to a belief from the model and so received no credit.

Question 5(c)

Most responses attempted to identify both a strength and a weakness of the health belief model. Strengths tended to focus on the usefulness of the health belief model, and how practitioners can use it to help patients to adhere better to treatment. Better answers for weaknesses explored how the model is theoretical. Many of the responses achieved level 1 due to identifying a correct strength but little explanation of the strength was then given. Weaker responses stated that the model was reductionist. One common error was the statement that it does not take into account the cost of medical treatment in some countries when this is not the case.

Question 6(a)

This was generally a well answered question where responses showed that the candidates had been well-prepared. The majority described what psychologists have discovered about patient and practitioner diagnosis and style by giving details of the Byrne and Long, Savage and Armstrong and Robinson and West studies. Some responses gave a description of type I and type II errors made in diagnosis although this was often quite brief. In addition, studies that were about verbal communication between the patient and practitioner were also given credit. Some responses were very detailed and could achieve in the higher mark bands. Weaker responses gave superficial descriptions of the studies with many giving the styles investigated without stating which styles were preferred or any details of the studies such as the sample, procedure or results.

Question 6(b)

A significant number of responses structured their answer by addressing each issue in turn. Most responses considered the named issue of validity and applied this issue to each study in turn. Some responses provided analysis by comparing the validity of each study and providing a conclusion regarding which study was the most valid compared to the others. Those responses that gave general details of the practitioner styles investigated in the studies found discussing validity a challenge as they did not know any details of the procedure and/or sample in order to explain any of their points. Other issues included ecological validity, ethics and usefulness. Some responses achieved in the lower levels of the mark band due to giving very brief responses or structuring their response by study which meant these types of answers were often repetitive and superficial.

Psychology and Organisations

Question 7(a)

There were some very good responses to this question, and most wrote an appropriate amount for a two mark question. Most responses could explain what is meant by open plan offices. Popular responses included that there are no interior walls, it is a large space where workers can interact or that there are low partitions between the desks. Weaker responses tended to be very brief or gave incorrect information such as no exterior walls. A small number of responses described open decision making rather than open plan offices which was not creditworthy.

Question 7(b)

Most responses were able to attempt a description of the findings of the Cowpe study. Most were able to state that there was a reduction in chip-pan fires over the course of the campaign. Better answers went on to describe that areas that were covered by two TV areas did not experience as much reduction in fires as those in single TV areas. A few responses gave numerical results of the study.

Question 7(c)

Good answers included the use of objective data from the fire brigade as a strength of the study and a lack of knowledge about which particular advert (prevention or containment) had been the most successful in reducing fires. Other popular strengths/weaknesses included application to everyday life of the campaign, ethnocentrism, ecological validity and generalisability. Many of the responses achieved Level 2 due to being fairly brief and not clearly contextualised to the Cowpe study. Some responses misunderstood the study and gave answers that focused on workers in workplaces rather than recognising that the campaign was targeted at people in their homes.

Question 8(a)

There were many good, well developed responses to this question. Many responses described cognitive theories about motivation to work, including Goal setting theory by Latham and Locke, VIE (expectancy) theory by Vroom, and Adams' Equity theory. Weaker, credit-worthy responses tended to be brief or a superficial description of the relevant theories. Some responses were anecdotal with the response describing what would motivate an employee at work. A significant number of the responses described need theories such as Maslow's Hierarchy of Needs and/or intrinsic/extrinsic motivation which are not cognitive theories of motivation to work and could not be credited.

Question 8(b)

Most responses were structured by evaluation issue with many of them beginning with the named issue of determinism. Some responses did some analysis of their evaluation points by providing strengths and weaknesses of the issue under discussion or making a comparison between the theories that had been described in **part (a)**. Popular evaluation issues included applications to everyday life and generalisability. A significant number of weaker responses evaluated the theories from **part (a)** in turn and gave more superficial and repetitive responses. Evaluation of need theories and/or intrinsic and extrinsic motivational theories were not creditworthy as these are not cognitive theories of motivation at work.

PSYCHOLOGY

Paper 9990/32 Specialist Options: Theory

Key messages

Question 1(a), 3(a), 5(a) and 7(a) –

It is important that candidates are made aware of the terminology/concepts identified in the syllabus as well as key terms used in named theories and studies as some were unable to identify and/or define the terms given in these types of questions. Creating a glossary of key terms, revision of terminology using flash cards and class quizzes on terminology could prove useful. Where the response gave an example to help define the term this often achieved full marks. These questions are worth 2 marks and a brief response is appropriate.

Question 1(b), 3(b), 5(b) and 7(b) –

These questions could ask the candidate to describe a theory, model, or part of a study. These questions could also ask the candidate to describe a part of one of the named studies from the syllabus or a summary of the key features of the study. This question is worth 4 marks and the candidates should write a more extended answer. An error shown by some candidates was to describe a theory or technique that was from the correct part of the syllabus but did not address the question. There were also some general responses that were not specifically directed at the question.

Questions 1(c), 3(c), 5(c) and 7(c) –

These questions could require the candidate to explain two strengths or weaknesses of what they have described in the **part (b)** of the question. The question could also ask the candidates to make a comparison or to evaluate using a specific issue, such as validity. This question is worth 6 marks so the candidate should write a more extended answer for each issue raised. Some responses were very detailed for one issue but then only briefly discussed the second issue. In addition, some of the responses were general and not specific to the theory, model or study named in the question. To improve, responses should give specific examples to achieve the top band.

Questions 2(a), 4(a), 6(a) and 8(a) –

This question will always come from one of the bullet points in the syllabus. Candidates could describe the three or four studies, theories, models or techniques identified in the syllabus under the appropriate bullet point. For this exam, some of the answers did not give all of the studies/theories under the bullet point, used the incorrect bullet point or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, models or techniques but this would need to be a very detailed description. Ideally the response would describe three of the bullet points in detail with excellent understanding and good use of terminology throughout. These types of responses often achieved the top band. It is also important that the descriptions are linked to the topic area named in the syllabus. It could be useful for candidates to do revision notes with the title of each bullet point as the header in their notes.

Questions 2(b), 4(b), 6(b) and 8(b) –

This question will always ask the candidate to evaluate the theories, studies and/or techniques described in **part (a)** of the question. The response must include at least two evaluation issues, including the named issue, in order to be considered to have presented a range of issues to achieve the top band. However, most responses that evaluated two issues in this exam achieved in the lower bands due to the response being superficial and often with little analysis. Some responses that considered at least three issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the theories, models, studies and techniques described in the **part (a)** of the

answer. The candidate must also provide some form of analysis. This could be done by discussing the strengths and weaknesses of the issue being considered, presenting a counter-argument to the issue under discussion or comparing the issue between two studies and/or theories. A conclusion at the end of each issue would be helpful in order to show excellent understanding of the issue under discussion. In order to achieve the requirements of the level 3 and 4 band descriptors it would be best if the response was structured by issue rather than by study and/or theory. It would also be ideal for the response to start with the named issue to make sure the answer covers this requirement of the question.

Quite a few of the answers were structured by technique/theory/study rather than by the issue which often led the response to be quite superficial and repetitive. A number of the responses were able to demonstrate the skill of analysis. Candidates should be aware this question is worth 10 marks and attempt to include an appropriate amount of information.

General comments

The marks achieved by candidates for this series of the 9990 syllabus achieved across the full range of the mark band. Many of the candidates were very well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. However, some candidates were not as well prepared and showed limited knowledge and understanding with brief and/or superficial responses. These candidates often had limited evaluation skills.

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Question 2(a)

Many responses were detailed, accurate and coherent with a good use of psychological terminology. Most responses referred to biochemical treatments, ECT, cognitive restructuring and REBT. Many responses were also well focussed on how the treatment reduces symptoms of depression. Some responses included description of typical and atypical antipsychotics which was not creditworthy. A significant minority of responses found it difficult to distinguish clearly between CBT and REBT and tended to confuse or merge these two treatments.

Question 2(b)

The responses to this question covered the full range of the mark band. Better responses used the issues as a starting point and compared the treatments that had been described in **part (a)**. The vast majority addressed the named issue of ethics. Some did provide analysis of this issue and made comparisons of the ethics of the treatments described in **part (a)**. Weaker responses tended to state that the treatments were not ethical but with little or no discussion to explain why. A range of other points were considered including application to everyday life, appropriateness of the treatments and effectiveness of the treatments. Weaker responses often evaluated the treatments in turn with few examples to back up their points and little analysis given. A small number of responses continued to describe the treatments from **part (a)** which was not creditworthy.

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There were a few good explanations of choice heuristics in consumer decision-making. Many responses were able to state that it was a mental shortcut, and some linked this to consumer decision-making. A few referred to the concepts of availability, representativeness or anchoring and some responses gave an example of this to explain the term given. A significant number of candidates gave an incorrect definition for this question.

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Some responses were able to outline two aims of the study by Wansink et al. (1998) on consumer decision-making. The most common responses were how many units of a product consumers buy and multi-unit pricing. The better responses gave examples alongside the aim stated, clearly demonstrating a good understanding of the study. A number of responses were left blank with no attempt at an answer.

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For those candidates who gave a good response to **part (b)**, many were able to achieve at least level 2 and some level 3 for their response to this question. Those that gave confused or incorrect responses to **part (b)**, often achieved in level 1 or gave no response to this question. Popular points raised included population validity/generalisability and ecological validity of the laboratory and field studies conducted by Wansink et al. Weaker responses identified the issue but did not clearly link it to any of the studies conducted by Wansink et al.

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Question 4(b)

The majority of the responses to this question and tended to structure their response by model rather than by issue. Most attempted to discuss the named issue of application to everyday life and those that gave the correct response in **part (a)** were able to explain how the models could be used by companies to improve their advertising and therefore improve sales. Some responses attempted to discuss other issues and raised points such as ethnocentrism and reductionism with some explaining the holistic nature of many of the models. Weaker responses referred to the models as if they were pieces of research with participants and looked at, for example, the generalisability of the samples used which was not creditworthy.

Psychology and Health

Question 5(a)

Most responses identified what was meant by a self-report by stating that it was collecting information using an interview or questionnaire. Some responses were then able to link this with non-adherence to medical advice and this was sometimes done through an example. Weaker responses identified that what a self-report is but there was no link to non-adherence to medical advice.

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There were some strong responses to this question with some identifying two beliefs of the health belief model such as cost/benefit analysis, perceived vulnerability or perceived susceptibility. Some responses gave an example of the belief rather than identifying the terms used in the model and these types of responses were credited. Some responses were very long for two marks. Some referred to features of the health belief model that were not beliefs (e.g. demographics) and received no credit.

Question 5(b)(ii)

This was well answered by many of the candidates. The majority of answers used the cost/benefit belief and then linked this to non-adherence. Some responses described different types of non-adherence but did not link this to a belief from the model and so received no credit.

Question 5(c)

Most responses attempted to identify both a strength and a weakness of the health belief model. Strengths tended to focus on the usefulness of the health belief model, and how practitioners can use it to help patients to adhere better to treatment. Better answers for weaknesses explored how the model is theoretical. Many of the responses achieved level 1 due to identifying a correct strength but little explanation of the strength was then given. Weaker responses stated that the model was reductionist. One common error was the statement that it does not take into account the cost of medical treatment in some countries when this is not the case.

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Question 6(b)

A significant number of responses structured their answer by addressing each issue in turn. Most responses considered the named issue of validity and applied this issue to each study in turn. Some responses provided analysis by comparing the validity of each study and providing a conclusion regarding which study was the most valid compared to the others. Those responses that gave general details of the practitioner styles investigated in the studies found discussing validity a challenge as they did not know any details of the procedure and/or sample in order to explain any of their points. Other issues included ecological validity, ethics and usefulness. Some responses achieved in the lower levels of the mark band due to giving very brief responses or structuring their response by study which meant these types of answers were often repetitive and superficial.

Psychology and Organisations

Question 7(a)

There were some very good responses to this question, and most wrote an appropriate amount for a two mark question. Most responses could explain what is meant by open plan offices. Popular responses included that there are no interior walls, it is a large space where workers can interact or that there are low partitions between the desks. Weaker responses tended to be very brief or gave incorrect information such as no exterior walls. A small number of responses described open decision making rather than open plan offices which was not creditworthy.

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Question 7(c)

Good answers included the use of objective data from the fire brigade as a strength of the study and a lack of knowledge about which particular advert (prevention or containment) had been the most successful in reducing fires. Other popular strengths/weaknesses included application to everyday life of the campaign, ethnocentrism, ecological validity and generalisability. Many of the responses achieved Level 2 due to being fairly brief and not clearly contextualised to the Cowpe study. Some responses misunderstood the study and gave answers that focused on workers in workplaces rather than recognising that the campaign was targeted at people in their homes.

Question 8(a)

There were many good, well developed responses to this question. Many responses described cognitive theories about motivation to work, including Goal setting theory by Latham and Locke, VIE (expectancy) theory by Vroom, and Adams' Equity theory. Weaker, credit-worthy responses tended to be brief or a superficial description of the relevant theories. Some responses were anecdotal with the response describing what would motivate an employee at work. A significant number of the responses described need theories such as Maslow's Hierarchy of Needs and/or intrinsic/extrinsic motivation which are not cognitive theories of motivation to work and could not be credited.

Question 8(b)

Most responses were structured by evaluation issue with many of them beginning with the named issue of determinism. Some responses did some analysis of their evaluation points by providing strengths and weaknesses of the issue under discussion or making a comparison between the theories that had been described in **part (a)**. Popular evaluation issues included applications to everyday life and generalisability. A significant number of weaker responses evaluated the theories from **part (a)** in turn and gave more superficial and repetitive responses. Evaluation of need theories and/or intrinsic and extrinsic motivational theories were not creditworthy as these are not cognitive theories of motivation at work.

PSYCHOLOGY

Paper 9990/33 Specialist Options: Theory

Key messages

Question 1(a), 3(a), 5(a) and 7(a) –

It is important that candidates are made aware of the terminology/concepts identified in the syllabus as well as key terms used in named theories and studies as some were unable to identify and/or define the terms given in these types of questions. Creating a glossary of key terms, revision of terminology using flash cards and class quizzes on terminology could prove useful. Where the response gave an example to help define the term this often achieved full marks. These questions are worth 2 marks and a brief response is appropriate.

Question 1(b), 3(b), 5(b) and 7(b) –

These questions could ask the candidate to describe a theory, model, or part of a study. These questions could also ask the candidate to describe a part of one of the named studies from the syllabus or a summary of the key features of the study. This question is worth 4 marks and the candidates should write a more extended answer. An error shown by some candidates was to describe a theory or technique that was from the correct part of the syllabus but did not address the question. There were also some general responses that were not specifically directed at the question.

Questions 1(c), 3(c), 5(c) and 7(c) –

These questions could require the candidate to explain two strengths or weaknesses of what they have described in the **part (b)** of the question. The question could also ask the candidates to make a comparison or to evaluate using a specific issue, such as validity. This question is worth 6 marks so the candidate should write a more extended answer for each issue raised. Some responses were very detailed for one issue but then only briefly discussed the second issue. In addition, some of the responses were general and not specific to the theory, model or study named in the question. To improve, responses should give specific examples to achieve the top band.

Questions 2(a), 4(a), 6(a) and 8(a) –

This question will always come from one of the bullet points in the syllabus. Candidates could describe the three or four studies, theories, models or techniques identified in the syllabus under the appropriate bullet point. For this exam, some of the answers did not give all of the studies/theories under the bullet point, used the incorrect bullet point or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, models or techniques but this would need to be a very detailed description. Ideally the response would describe three of the bullet points in detail with excellent understanding and good use of terminology throughout. These types of responses often achieved the top band. It is also important that the descriptions are linked to the topic area named in the syllabus. It could be useful for candidates to do revision notes with the title of each bullet point as the header in their notes.

Questions 2(b), 4(b), 6(b) and 8(b) –

This question will always ask the candidate to evaluate the theories, studies and/or techniques described in **part (a)** of the question. The response must include at least two evaluation issues, including the named issue, in order to be considered to have presented a range of issues to achieve the top band. However, most responses that evaluated two issues in this exam achieved in the lower bands due to the response being superficial and often with little analysis. Some responses that considered at least three issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the theories, models, studies and techniques described in the **part (a)** of the

answer. The candidate must also provide some form of analysis. This could be done by discussing the strengths and weaknesses of the issue being considered, presenting a counter-argument to the issue under discussion or comparing the issue between two studies and/or theories. A conclusion at the end of each issue would be helpful in order to show excellent understanding of the issue under discussion. In order to achieve the requirements of the level 3 and 4 band descriptors it would be best if the response was structured by issue rather than by study and/or theory. It would also be ideal for the response to start with the named issue to make sure the answer covers this requirement of the question.

Quite a few of the answers were structured by technique/theory/study rather than by the issue which often led the response to be quite superficial and repetitive. A number of the responses were able to demonstrate the skill of analysis. Candidates should be aware this question is worth 10 marks and attempt to include an appropriate amount of information.

General comments

The marks achieved by candidates for this series of the 9990 syllabus achieved across the full range of the mark band. Many of the candidates were very well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. However, some candidates were not as well prepared and showed limited knowledge and understanding with brief and/or superficial responses. These candidates often had limited evaluation skills.

Time management for this paper was good for the vast majority candidates and most attempted all questions that were required. Some candidates spent too long on the first option and left themselves less time to answer their second option. A number of candidates did not respond to one or more of the questions asked in the option area. A very small number of the candidates attempted to respond to more than two topic areas but often did not attempt all of the questions for each option chosen. These responses achieved at the lower end of the mark band.

The questions on abnormality and health were the more popular choice of questions.

Comments on specific questions

Psychology and Abnormality

Question 1(a)

This question was answered well with the majority of responses citing at least two characteristics of schizophrenia, mentioned positive and negative symptoms and/or stated that it is a psychotic disorder. A significant minority of responses wrote rather vague definitions, for example, a disorder that affects emotions, behaviours and cognition. This could apply to other disorders too.

Question 1(b)

Most responses were basic with some details given of the genetic explanation of schizophrenia. Most were able to state that schizophrenia is inherited, and many gave at least one correct concordance rate between twins. Better responses gave the correct concordance rates between monozygotic and dizygotic twins and a few were able to explain what this meant to achieve in the higher mark band. However, some responses misinterpreted this question and described the study by Gottesman and Shields rather than the genetic theory. A significant minority of answers demonstrated confusion by stating that monozygotic twins shared 50% DNA and dizygotic 9% rather than recognising what concordance rates means.

Question 1(c)

Many responses attempted to give both a similarity and a difference between the cognitive and genetic explanations. Most were able to achieve in level 1 or level 2 by identifying an appropriate comparison point and sometimes giving some development of this point. Popular points included the nature/nurture debate, the scientific nature of the explanations and reductionism. However, many of the responses began their response with a very detailed description of the cognitive explanation of schizophrenia. As this part of the response did not give either a similarity or a weakness no credit was given for this description. Many responses attempted to explain how genetic explanations were nature and cognitive nurture, but this was often simply stated rather than explained.

Question 2(a)

Many responses were detailed, accurate and coherent with a good use of psychological terminology. Most responses referred to biochemical treatments, ECT, cognitive restructuring and REBT. Many responses were also well focussed on how the treatment reduces symptoms of depression. Some responses included description of typical and atypical antipsychotics which was not creditworthy. A significant minority of responses found it difficult to distinguish clearly between CBT and REBT and tended to confuse or merge these two treatments.

Question 2(b)

The responses to this question covered the full range of the mark band. Better responses used the issues as a starting point and compared the treatments that had been described in **part (a)**. The vast majority addressed the named issue of ethics. Some did provide analysis of this issue and made comparisons of the ethics of the treatments described in **part (a)**. Weaker responses tended to state that the treatments were not ethical but with little or no discussion to explain why. A range of other points were considered including application to everyday life, appropriateness of the treatments and effectiveness of the treatments. Weaker responses often evaluated the treatments in turn with few examples to back up their points and little analysis given. A small number of responses continued to describe the treatments from **part (a)** which was not creditworthy.

Psychology and Consumer Behaviour

Question 3(a)

There were a few good explanations of choice heuristics in consumer decision-making. Many responses were able to state that it was a mental shortcut, and some linked this to consumer decision-making. A few referred to the concepts of availability, representativeness or anchoring and some responses gave an example of this to explain the term given. A significant number of candidates gave an incorrect definition for this question.

Question 3(b)

Some responses were able to outline two aims of the study by Wansink et al. (1998) on consumer decision-making. The most common responses were how many units of a product consumers buy and multi-unit pricing. The better responses gave examples alongside the aim stated, clearly demonstrating a good understanding of the study. A number of responses were left blank with no attempt at an answer.

Question 3(c)

For those candidates who gave a good response to **part (b)**, many were able to achieve at least level 2 and some level 3 for their response to this question. Those that gave confused or incorrect responses to **part (b)**, often achieved in level 1 or gave no response to this question. Popular points raised included population validity/generalisability and ecological validity of the laboratory and field studies conducted by Wansink et al. Weaker responses identified the issue but did not clearly link it to any of the studies conducted by Wansink et al.

Question 4(a)

Some responses gave a good outline of the AIDA model, hierarchy of effects model and changing attitudes and models of communication. Some also referred to the Yale model of communication in the context of advertising. However, many responses were from other sections of the syllabus and were not describing advertising or communication models. Some responses described marketing models and studies rather than advertising. Some of these responses were given limited credit if the response was linked to an advertising or communication model.

Question 4(b)

The majority of the responses to this question and tended to structure their response by model rather than by issue. Most attempted to discuss the named issue of application to everyday life and those that gave the correct response in **part (a)** were able to explain how the models could be used by companies to improve their advertising and therefore improve sales. Some responses attempted to discuss other issues and raised points such as ethnocentrism and reductionism with some explaining the holistic nature of many of the models. Weaker responses referred to the models as if they were pieces of research with participants and looked at, for example, the generalisability of the samples used which was not creditworthy.

Psychology and Health

Question 5(a)

Most responses identified what was meant by a self-report by stating that it was collecting information using an interview or questionnaire. Some responses were then able to link this with non-adherence to medical advice and this was sometimes done through an example. Weaker responses identified that what a self-report is but there was no link to non-adherence to medical advice.

Question 5(b)(i)

There were some strong responses to this question with some identifying two beliefs of the health belief model such as cost/benefit analysis, perceived vulnerability or perceived susceptibility. Some responses gave an example of the belief rather than identifying the terms used in the model and these types of responses were credited. Some responses were very long for two marks. Some referred to features of the health belief model that were not beliefs (e.g. demographics) and received no credit.

Question 5(b)(ii)

This was well answered by many of the candidates. The majority of answers used the cost/benefit belief and then linked this to non-adherence. Some responses described different types of non-adherence but did not link this to a belief from the model and so received no credit.

Question 5(c)

Most responses attempted to identify both a strength and a weakness of the health belief model. Strengths tended to focus on the usefulness of the health belief model, and how practitioners can use it to help patients to adhere better to treatment. Better answers for weaknesses explored how the model is theoretical. Many of the responses achieved level 1 due to identifying a correct strength but little explanation of the strength was then given. Weaker responses stated that the model was reductionist. One common error was the statement that it does not take into account the cost of medical treatment in some countries when this is not the case.

Question 6(a)

This was generally a well answered question where responses showed that the candidates had been well-prepared. The majority described what psychologists have discovered about patient and practitioner diagnosis and style by giving details of the Byrne and Long, Savage and Armstrong and Robinson and West studies. Some responses gave a description of type I and type II errors made in diagnosis although this was often quite brief. In addition, studies that were about verbal communication between the patient and practitioner were also given credit. Some responses were very detailed and could achieve in the higher mark bands. Weaker responses gave superficial descriptions of the studies with many giving the styles investigated without stating which styles were preferred or any details of the studies such as the sample, procedure or results.

Question 6(b)

A significant number of responses structured their answer by addressing each issue in turn. Most responses considered the named issue of validity and applied this issue to each study in turn. Some responses provided analysis by comparing the validity of each study and providing a conclusion regarding which study was the most valid compared to the others. Those responses that gave general details of the practitioner styles investigated in the studies found discussing validity a challenge as they did not know any details of the procedure and/or sample in order to explain any of their points. Other issues included ecological validity, ethics and usefulness. Some responses achieved in the lower levels of the mark band due to giving very brief responses or structuring their response by study which meant these types of answers were often repetitive and superficial.

Psychology and Organisations

Question 7(a)

There were some very good responses to this question, and most wrote an appropriate amount for a two mark question. Most responses could explain what is meant by open plan offices. Popular responses included that there are no interior walls, it is a large space where workers can interact or that there are low partitions between the desks. Weaker responses tended to be very brief or gave incorrect information such as no exterior walls. A small number of responses described open decision making rather than open plan offices which was not creditworthy.

Question 7(b)

Most responses were able to attempt a description of the findings of the Cowpe study. Most were able to state that there was a reduction in chip-pan fires over the course of the campaign. Better answers went on to describe that areas that were covered by two TV areas did not experience as much reduction in fires as those in single TV areas. A few responses gave numerical results of the study.

Question 7(c)

Good answers included the use of objective data from the fire brigade as a strength of the study and a lack of knowledge about which particular advert (prevention or containment) had been the most successful in reducing fires. Other popular strengths/weaknesses included application to everyday life of the campaign, ethnocentrism, ecological validity and generalisability. Many of the responses achieved Level 2 due to being fairly brief and not clearly contextualised to the Cowpe study. Some responses misunderstood the study and gave answers that focused on workers in workplaces rather than recognising that the campaign was targeted at people in their homes.

Question 8(a)

There were many good, well developed responses to this question. Many responses described cognitive theories about motivation to work, including Goal setting theory by Latham and Locke, VIE (expectancy) theory by Vroom, and Adams' Equity theory. Weaker, credit-worthy responses tended to be brief or a superficial description of the relevant theories. Some responses were anecdotal with the response describing what would motivate an employee at work. A significant number of the responses described need theories such as Maslow's Hierarchy of Needs and/or intrinsic/extrinsic motivation which are not cognitive theories of motivation to work and could not be credited.

Question 8(b)

Most responses were structured by evaluation issue with many of them beginning with the named issue of determinism. Some responses did some analysis of their evaluation points by providing strengths and weaknesses of the issue under discussion or making a comparison between the theories that had been described in **part (a)**. Popular evaluation issues included applications to everyday life and generalisability. A significant number of weaker responses evaluated the theories from **part (a)** in turn and gave more superficial and repetitive responses. Evaluation of need theories and/or intrinsic and extrinsic motivational theories were not creditworthy as these are not cognitive theories of motivation at work.

PSYCHOLOGY

Paper 9990/41
Specialist Options: Application

Key messages

- What has been learned from the AS component of the syllabus should be transferred to the A2 component. For example, candidates learn about methodology, such as experiments, at AS Level, which also apply to A2 Level.
- Questions should be read carefully ensuring that the answer is focussed on the question.
- All components of the question should be included in answers. For example, question **part (d)** for **Questions 1, 2, 3 and 4** required advantages and disadvantages (plurals) and a conclusion.
- In **Section B**, methodological knowledge must be evident and detailed for full marks to be accessed. The procedure, however detailed is just one methodological aspect. For full marks, answers must explain methodology rather than merely identify it.
- In **Section C**, to access full marks, answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided.
- Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve full marks.

General comments

Section A

- Candidates did not always address the ‘stem’ of the question in **Section A**; this is crucial to answering each question part that follows.
- Answers must refer to the study the question is about. Many answers made general comments but needed to focus on the studies specified in many cases (see specific questions below for examples).
- Many answers correctly included advantages and disadvantages in **part (d)** questions but many did not relate these to the question which limited the credit available.
- Many conclusions repeated what had already been written, and such summaries could not be credited. A conclusion is a ‘decision reached by reasoning’ and so as the reasoning has been done through the advantages and disadvantages, a final decision/conclusion needs to be drawn.
- Candidates should think about what the question requires and avoid writing pre-prepared answers. Many questions will test the ability to apply knowledge from one thing to another, particularly methodological knowledge.
- Candidates should provide sufficient detail to score all the available marks. A single sentence is more likely to score one mark rather than two marks, so elaboration, explanation or exemplification that goes beyond the basic sentence is recommended. Candidates should always try to impress the examiner with their psychological knowledge.

Section B

Answers to **part (a)** questions in this section should include an appropriate design, have applied a range (four or five) of relevant methodological design features, each of which should be explained fully, showing good understanding. Many answers listed features such as ‘I would have a random sample’ and ‘It would be an independent measures design’ without explanation of why it would be a random sample, or how this would be obtained.

In **part (b)**, answers should explain the methodological decisions on which their **part (a)** design is based and also explain the psychological evidence on which their design is based. Describing a relevant piece of research from the topic area is insufficient and cannot be credited. The links between the research and how it informed the design must be shown. Some candidates wrote ‘I chose a self-selecting sample because

Milgram did' for example. This identifies a study using that technique, but does not explain the choice of sampling technique.

Section C

It is essential that answers focus on the question that is set. Every question in this section requires candidates to consider the extent to which they agree or disagree with the statement. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must use appropriate evidence to support the argument, and at the very top of the mark range answers should show awareness of wider issues and evidence that is relevant.

Section A

Question 1

- (a) Nearly all candidates scored 1 mark for writing 'an uncontrollable urge to steal' (or words to that effect). Some candidates scored full marks, most of whom expanding on this point that kleptomania involves experiencing tension before the theft followed by feelings of pleasure, gratification, or relief when committing the theft.
- (b) Many candidates did not answer the question fully. The question asked for limitations of the question above, i.e. the question from the K-SAS appearing in the stem. However, some candidates gave general responses than could apply to any question such as social desirability. Whilst this scored partial credit, it did not score full credit because answers were not related to the specific question.
- (c) (i) Many candidates knew how to assess reliability and described test-retest correctly. However, many of these candidates did not refer to the K-SAS at all and so did not score the second mark. It is essential for candidates to relate their knowledge to the question set.
(ii) As with **Question (c)(i)** many candidates knew how to assess validity and often wrote about concurrent validity. Sometimes examples from the AS component of the syllabus were used to support the answer but these were not always creditable as answers needed to focus on the validity of the K-SAS. Some candidates could not demonstrate knowledge of the term validity (or reliability) and some candidates confused the terms, scoring no marks.
- (d) Many answers included two advantages and two disadvantages and a conclusion, but many answers only scored partial marks because they were not related to measuring kleptomania as the question required.

Question 2

- (a) Marks could be scored in two ways: identifying 'field experiment' and observation (one of: naturalistic/covert/participant/structured), or identifying one research method (either of the above) and outlining how it was used in the study by Milgram.
- (b) Many candidates outlined two features, one of which is that 'the maintenance of the line depends on a shared knowledge of the standards of behaviour appropriate to this situation' (put another way, people have a script for queuing). The question stated 'according to Milgram', so the two features had to be those outlined by Milgram, demonstrating the candidates' psychological knowledge. Many answers were anecdotal of what a candidate had experienced when in a queue.
- (c) (i) The two response categories were 'physical action' and 'non-verbal objections' or words to the same effect. Most candidates scored full marks for these answers. Some candidates elaborated to give examples, but these could not be credited for this 'identify' question, and examples were required in **(c)(ii)**. It is recommended that candidates read all sub-parts of a question before starting an answer.
(ii) Most candidates provided two answers directly from the Milgram study. The most common physical action was 'pushing the intruder firmly out of the line', although 'tugging at the sleeve' or 'tapping on the shoulder' were equally acceptable. For non-verbal objections, 'dirty looks' and 'hostile stares' featured prominently. A few candidates gave anecdotal answers.

- (d) Like **Question 1(d)**, many answers included two advantages and two disadvantages but often focused exclusively on stooges with no mention of consumer behaviour. Some candidates appeared not to know what a stooge is given some of the advantages and disadvantages included in answers.

Question 3

- (a) Most answers scored full marks by stating that 'imagery is an image or picture a person has in their mind about an object, event or particularly a scene which is pleasant, relaxing and brings happiness/a smile to the person imagining the scene'. Some candidates provided partial answers which scored limited credit.
- (b) Two reasons were required. Many candidates were unable to score full credit for the following reasons:
- Candidates described the results. Describing results shows that it was successful, but the question asked why imagery was successful.
 - Candidates gave anecdotal answers.
 - The question stated 'according to Bridge et al.', and so the two reasons had to be those outlined by Bridge et al.
- (c) (i) Many answers incorrectly suggested a repeated measures or a matched pairs design. Some candidates suggested that the design was a laboratory experiment, both these errors showing a lack of understanding of both methodology and the study itself. Bridge et al. used an independent measures design and had different women do the three conditions: relaxation only, relaxation plus imagery, and control. Applying this study, if repeated measures had been used then confounding would have occurred (i.e. cannot be control or relaxation only if imagery has already been learned).
- (ii) Incorrect answers in (c)(i) often led to incorrect answers in this sub-question. The main disadvantage of an independent design is that individual differences between participants are not controlled. This means that there may have been some other variable (such as chemotherapy) that led to them recovering rather than the imagery.
- (d) The question stated 'people who are ill' and this allowed a wide range of examples to be included. However, examples were sparse, anecdotal or absent. There were two common misconceptions in relation to longitudinal studies:
- They are not exclusively a study of one person. Many longitudinal studies involve quite large samples.
 - The researcher does not automatically have some kind of relationship with one or any of the participants.
- Both these errors are likely to have applied to a particular longitudinal study but they do not apply to all longitudinal studies.

Question 4

- (a) Many candidates were unable to explain how the job descriptive index (JDI) is scored.
- (b) A common incorrect answer was to give ways of measuring job satisfaction that did not use a questionnaire, but the question stated 'using questionnaires'.
- (c) The JDI has five job facets, and candidates had to outline any two of these, except for the co-worker facet. Many candidates appeared to guess, sometimes able to achieve limited credit for stating 'pay' and 'the work (or job)'.
- (d) Very few candidates were able to discuss measuring job satisfaction using a yes/no/do not know scale, and scored limited credit. It is essential that all parts of the question are addressed for full credit.

Section B

Question 5

- (a) A few candidates wrote excellent answers, focusing on the question set. There were some common errors/omissions in other answers. Some candidates did not use the observational method as the question required and designed an experiment instead, or designed a questionnaire. Some candidates used the word observation but did not use any of its essential terminology (see mark scheme for details). Some candidates did not focus on generalised anxiety disorder, instead investigating blood and injection phobia, or an animal phobia.
- (b) Some candidates focused on the GAD-7 questionnaire, and while some were able to use items from it to inform their observation, answers simply described it, and needed to show that information from it could be applied to their own design. In relation to methodological evidence, many answers focused on general design aspects, such as sampling, ethics and the type of data gathered, with little reference to the named method, the essential feature. In this case it would have been apposite to explain why an observation was covert rather than overt, or structured rather than unstructured. A number of candidates wrote unfocussed general responses about phobias.

Question 6

- (a) Investigations into this question had to be a questionnaire, yet many candidates brought in the features of an experiment. This is acceptable, but the essential features of the named method should always be included in full detail. Most candidates knew about disrupt-then-reframe but were not always able to incorporate this into their questionnaire. Many answers included just one question, asking about which product they would choose at the end of the study. This made the design an interview study rather than a questionnaire study.
- (b) Psychological evidence in the stronger answers showed a good understanding of the study by Kardes et al. because answers in **part (a)** were often informed by this study. However, many answers described this study and did not refer to the design of their study. These candidates needed to explain the evidence on which their study is based. In relation to methodological decisions, answers often focused on features of an experiment rather than the design decisions that need to be made when designing and conducting a questionnaire study, such as the reasons for giving the questionnaire in a shopping mall rather than online or in a controlled environment.

Question 7

- (a) This question required candidates to use an experiment. Most candidates were able to apply an IV, a DV and sometimes a design, although some answers explained that participants would be in different conditions without stating that it would be an independent design. Sometimes controls were applied but sometimes not. Some candidates were able to apply their knowledge of attention diversion and suggested watching a television or talking to another person. Some candidates confused the term with non-pain imagery or suggested using TENS (counteracting pain with pain).
- (b) In relation to methodology, this was generally very good, but candidates need to ensure they explain their design decisions in relation to this specific investigation rather than with generalised comments that could apply to any study. In relation to psychological evidence, candidates often applied attention diversion well, and 'watch a television to divert attention' was the simplest application. Some candidates referred to the study by Bridge et al., making the assumption that imagery was a form of attention diversion. Although it is different, credit was awarded if an attempt was made to apply it rather than merely describe the Bridge et al. study.

Question 8

- (a) Candidates had a free choice of method here, and the strongest answers tended to choose an experiment, although an observation, interview or questionnaire would have been equally acceptable methods. Some candidates designed an experiment and gathered data using another method, which was appropriate and creditworthy. Answers could have improved by showing how the design incorporated the levels of leadership, as some answers were limited to asking workers what level of leadership their leader shows.
- (b) A common weakness in answers was explaining how psychological evidence informed the design. In this case explaining how levels of leadership can actually be tested. For example, designs often asked workers what they thought of a leader. However, this might test the public level and also the private level, but it could not test the personal level. Some candidates described the three levels outlined by Scouller but did not relate them to **part (a)**. Some candidates described Fiedler's LPC which is not about levels of leadership.

Section C

Question 9

There were some excellent answers which included a range of examples impulse control disorders (ICDs). However, many candidates did not answer the question set. The focus of the question was on positive reinforcement and so the answer should have been based on whether or not positive reinforcement explained ICDs. Most answers started with positive reinforcement and Skinner, but others described Pavlov and how little Albert in the study by Watson learned a phobia which was not relevant. The 'dopamine hypothesis' also featured, as did Miller's feeling-states theory. Some candidates were unclear that these were related to positive reinforcement.

Question 10

The study by Wansink et al. (2005) on sensory perception and food name featured prominently in answers to this question. Wansink et al. argued that elaborated description of food does influence what people eat and his research found that elaborated food was rated as both more appealing and tasty to eat. Many candidates presented the Wansink et al. research successfully and then provided counter-arguments, such as people preferring familiarity rather than novelty in what they choose, and so ignoring food name, knowing that they will enjoy a familiar item but perhaps not a novel item.

Question 11

A few candidates addressed the question and scored high marks. These candidates argued for both sides, firstly that there is no need for different measures and gave reasons supported with examples and then argued that there is a need and also supported with examples. These candidates thought about and organised their knowledge to answer the question. Some candidates wrote unfocussed responses about pain (and scored very few marks). Some candidates wrote about measures that could be used by children and measures that could be used by adults (which also scored very few marks).

Question 12

Some candidates brought in some evidence such as the work by Blau and Boal (1987) but very few used this to answer the question. Many answers were quite short. Many answers were anecdotal, common-sense answers about people being ill.

PSYCHOLOGY

Paper 9990/42 Specialist Options: Application
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Key messages

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- Questions should be read carefully ensuring that the answer is focussed on the question.
- All components of the question should be included in answers. For example, question **part (d)** for **Questions 1, 2, 3 and 4** required advantages and disadvantages (plurals) and a conclusion.
- In **Section B**, methodological knowledge must be evident and detailed for full marks to be accessed. The procedure, however detailed is just one methodological aspect. For full marks, answers must explain methodology rather than merely identify it.
- In **Section C**, to access full marks, answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided.
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General comments

Section A

- Candidates did not always address the ‘stem’ of the question in **Section A**; this is crucial to answering each question part that follows.
- Answers must refer to the study the question is about. Many answers made general comments but needed to focus on the studies specified in many cases (see specific questions below for examples).
- Many answers correctly included advantages and disadvantages in **part (d)** questions but many did not relate these to the question which limited the credit available.
- Many conclusions repeated what had already been written, and such summaries could not be credited. A conclusion is a ‘decision reached by reasoning’ and so as the reasoning has been done through the advantages and disadvantages, a final decision/conclusion needs to be drawn.
- Candidates should think about what the question requires and avoid writing pre-prepared answers. Many questions will test the ability to apply knowledge from one thing to another, particularly methodological knowledge.
- Candidates should provide sufficient detail to score all the available marks. A single sentence is more likely to score one mark rather than two marks, so elaboration, explanation or exemplification that goes beyond the basic sentence is recommended. Candidates should always try to impress the examiner with their psychological knowledge.

Section B

Answers to **part (a)** questions in this section should include an appropriate design, have applied a range (four or five) of relevant methodological design features, each of which should be explained fully, showing good understanding. Many answers listed features such as ‘I would have a random sample’ and ‘It would be an independent measures design’ without explanation of why it would be a random sample, or how this would be obtained.

In **part (b)**, answers should explain the methodological decisions on which their **part (a)** design is based and also explain the psychological evidence on which their design is based. Describing a relevant piece of research from the topic area is insufficient and cannot be credited. The links between the research and how it informed the design must be shown. Some candidates wrote ‘I chose a self-selecting sample because

Milgram did' for example. This identifies a study using that technique, but does not explain the choice of sampling technique.

Section C

It is essential that answers focus on the question that is set. Every question in this section requires candidates to consider the extent to which they agree or disagree with the statement. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must use appropriate evidence to support the argument, and at the very top of the mark range answers should show awareness of wider issues and evidence that is relevant.

Section A

Question 1

- (a) Nearly all candidates scored 1 mark for writing 'an uncontrollable urge to steal' (or words to that effect). Some candidates scored full marks, most of whom expanding on this point that kleptomania involves experiencing tension before the theft followed by feelings of pleasure, gratification, or relief when committing the theft.
- (b) Many candidates did not answer the question fully. The question asked for limitations of the question above, i.e. the question from the K-SAS appearing in the stem. However, some candidates gave general responses than could apply to any question such as social desirability. Whilst this scored partial credit, it did not score full credit because answers were not related to the specific question.
- (c) (i) Many candidates knew how to assess reliability and described test-retest correctly. However, many of these candidates did not refer to the K-SAS at all and so did not score the second mark. It is essential for candidates to relate their knowledge to the question set.
 - (ii) As with **Question (c)(i)** many candidates knew how to assess validity and often wrote about concurrent validity. Sometimes examples from the AS component of the syllabus were used to support the answer but these were not always creditable as answers needed to focus on the validity of the K-SAS. Some candidates could not demonstrate knowledge of the term validity (or reliability) and some candidates confused the terms, scoring no marks.
- (d) Many answers included two advantages and two disadvantages and a conclusion, but many answers only scored partial marks because they were not related to measuring kleptomania as the question required.

Question 2

- (a) Marks could be scored in two ways: identifying 'field experiment' and observation (one of: naturalistic/covert/participant/structured), or identifying one research method (either of the above) and outlining how it was used in the study by Milgram.
- (b) Many candidates outlined two features, one of which is that 'the maintenance of the line depends on a shared knowledge of the standards of behaviour appropriate to this situation' (put another way, people have a script for queuing). The question stated 'according to Milgram', so the two features had to be those outlined by Milgram, demonstrating the candidates' psychological knowledge. Many answers were anecdotal of what a candidate had experienced when in a queue.
- (c) (i) The two response categories were 'physical action' and 'non-verbal objections' or words to the same effect. Most candidates scored full marks for these answers. Some candidates elaborated to give examples, but these could not be credited for this 'identify' question, and examples were required in **(c)(ii)**. It is recommended that candidates read all sub-parts of a question before starting an answer.
 - (ii) Most candidates provided two answers directly from the Milgram study. The most common physical action was 'pushing the intruder firmly out of the line', although 'tugging at the sleeve' or 'tapping on the shoulder' were equally acceptable. For non-verbal objections, 'dirty looks' and 'hostile stares' featured prominently. A few candidates gave anecdotal answers.

- (d) Like **Question 1(d)**, many answers included two advantages and two disadvantages but often focused exclusively on stooges with no mention of consumer behaviour. Some candidates appeared not to know what a stooge is given some of the advantages and disadvantages included in answers.

Question 3

- (a) Most answers scored full marks by stating that 'imagery is an image or picture a person has in their mind about an object, event or particularly a scene which is pleasant, relaxing and brings happiness/a smile to the person imagining the scene'. Some candidates provided partial answers which scored limited credit.
- (b) Two reasons were required. Many candidates were unable to score full credit for the following reasons:
- Candidates described the results. Describing results shows that it was successful, but the question asked why imagery was successful.
 - Candidates gave anecdotal answers.
 - The question stated 'according to Bridge et al.', and so the two reasons had to be those outlined by Bridge et al.
- (c) (i) Many answers incorrectly suggested a repeated measures or a matched pairs design. Some candidates suggested that the design was a laboratory experiment, both these errors showing a lack of understanding of both methodology and the study itself. Bridge et al. used an independent measures design and had different women do the three conditions: relaxation only, relaxation plus imagery, and control. Applying this study, if repeated measures had been used then confounding would have occurred (i.e. cannot be control or relaxation only if imagery has already been learned).
- (ii) Incorrect answers in (c)(i) often led to incorrect answers in this sub-question. The main disadvantage of an independent design is that individual differences between participants are not controlled. This means that there may have been some other variable (such as chemotherapy) that led to them recovering rather than the imagery.
- (d) The question stated 'people who are ill' and this allowed a wide range of examples to be included. However, examples were sparse, anecdotal or absent. There were two common misconceptions in relation to longitudinal studies:
- They are not exclusively a study of one person. Many longitudinal studies involve quite large samples.
 - The researcher does not automatically have some kind of relationship with one or any of the participants.
- Both these errors are likely to have applied to a particular longitudinal study but they do not apply to all longitudinal studies.

Question 4

- (a) Many candidates were unable to explain how the job descriptive index (JDI) is scored.
- (b) A common incorrect answer was to give ways of measuring job satisfaction that did not use a questionnaire, but the question stated 'using questionnaires'.
- (c) The JDI has five job facets, and candidates had to outline any two of these, except for the co-worker facet. Many candidates appeared to guess, sometimes able to achieve limited credit for stating 'pay' and 'the work (or job)'.
- (d) Very few candidates were able to discuss measuring job satisfaction using a yes/no/do not know scale, and scored limited credit. It is essential that all parts of the question are addressed for full credit.

Section B

Question 5

- (a) A few candidates wrote excellent answers, focusing on the question set. There were some common errors/omissions in other answers. Some candidates did not use the observational method as the question required and designed an experiment instead, or designed a questionnaire. Some candidates used the word observation but did not use any of its essential terminology (see mark scheme for details). Some candidates did not focus on generalised anxiety disorder, instead investigating blood and injection phobia, or an animal phobia.
- (b) Some candidates focused on the GAD-7 questionnaire, and while some were able to use items from it to inform their observation, answers simply described it, and needed to show that information from it could be applied to their own design. In relation to methodological evidence, many answers focused on general design aspects, such as sampling, ethics and the type of data gathered, with little reference to the named method, the essential feature. In this case it would have been apposite to explain why an observation was covert rather than overt, or structured rather than unstructured. A number of candidates wrote unfocussed general responses about phobias.

Question 6

- (a) Investigations into this question had to be a questionnaire, yet many candidates brought in the features of an experiment. This is acceptable, but the essential features of the named method should always be included in full detail. Most candidates knew about disrupt-then-reframe but were not always able to incorporate this into their questionnaire. Many answers included just one question, asking about which product they would choose at the end of the study. This made the design an interview study rather than a questionnaire study.
- (b) Psychological evidence in the stronger answers showed a good understanding of the study by Kardes et al. because answers in **part (a)** were often informed by this study. However, many answers described this study and did not refer to the design of their study. These candidates needed to explain the evidence on which their study is based. In relation to methodological decisions, answers often focused on features of an experiment rather than the design decisions that need to be made when designing and conducting a questionnaire study, such as the reasons for giving the questionnaire in a shopping mall rather than online or in a controlled environment.

Question 7

- (a) This question required candidates to use an experiment. Most candidates were able to apply an IV, a DV and sometimes a design, although some answers explained that participants would be in different conditions without stating that it would be an independent design. Sometimes controls were applied but sometimes not. Some candidates were able to apply their knowledge of attention diversion and suggested watching a television or talking to another person. Some candidates confused the term with non-pain imagery or suggested using TENS (counteracting pain with pain).
- (b) In relation to methodology, this was generally very good, but candidates need to ensure they explain their design decisions in relation to this specific investigation rather than with generalised comments that could apply to any study. In relation to psychological evidence, candidates often applied attention diversion well, and 'watch a television to divert attention' was the simplest application. Some candidates referred to the study by Bridge et al., making the assumption that imagery was a form of attention diversion. Although it is different, credit was awarded if an attempt was made to apply it rather than merely describe the Bridge et al. study.

Question 8

- (a) Candidates had a free choice of method here, and the strongest answers tended to choose an experiment, although an observation, interview or questionnaire would have been equally acceptable methods. Some candidates designed an experiment and gathered data using another method, which was appropriate and creditworthy. Answers could have improved by showing how the design incorporated the levels of leadership, as some answers were limited to asking workers what level of leadership their leader shows.
- (b) A common weakness in answers was explaining how psychological evidence informed the design. In this case explaining how levels of leadership can actually be tested. For example, designs often asked workers what they thought of a leader. However, this might test the public level and also the private level, but it could not test the personal level. Some candidates described the three levels outlined by Scouller but did not relate them to **part (a)**. Some candidates described Fiedler's LPC which is not about levels of leadership.

Section C

Question 9

There were some excellent answers which included a range of examples impulse control disorders (ICDs). However, many candidates did not answer the question set. The focus of the question was on positive reinforcement and so the answer should have been based on whether or not positive reinforcement explained ICDs. Most answers started with positive reinforcement and Skinner, but others described Pavlov and how little Albert in the study by Watson learned a phobia which was not relevant. The 'dopamine hypothesis' also featured, as did Miller's feeling-states theory. Some candidates were unclear that these were related to positive reinforcement.

Question 10

The study by Wansink et al. (2005) on sensory perception and food name featured prominently in answers to this question. Wansink et al. argued that elaborated description of food does influence what people eat and his research found that elaborated food was rated as both more appealing and tasty to eat. Many candidates presented the Wansink et al. research successfully and then provided counter-arguments, such as people preferring familiarity rather than novelty in what they choose, and so ignoring food name, knowing that they will enjoy a familiar item but perhaps not a novel item.

Question 11

A few candidates addressed the question and scored high marks. These candidates argued for both sides, firstly that there is no need for different measures and gave reasons supported with examples and then argued that there is a need and also supported with examples. These candidates thought about and organised their knowledge to answer the question. Some candidates wrote unfocussed responses about pain (and scored very few marks). Some candidates wrote about measures that could be used by children and measures that could be used by adults (which also scored very few marks).

Question 12

Some candidates brought in some evidence such as the work by Blau and Boal (1987) but very few used this to answer the question. Many answers were quite short. Many answers were anecdotal, common-sense answers about people being ill.

PSYCHOLOGY

Paper 9990/43
Specialist Options: Application

Key messages

- What has been learned from the AS component of the syllabus should be transferred to the A2 component. For example, candidates learn about methodology, such as experiments, at AS Level, which also apply to A2 Level.
- Questions should be read carefully ensuring that the answer is focussed on the question.
- All components of the question should be included in answers. For example, question **part (d)** for **Questions 1, 2, 3 and 4** required advantages and disadvantages (plurals) and a conclusion.
- In **Section B**, methodological knowledge must be evident and detailed for full marks to be accessed. The procedure, however detailed is just one methodological aspect. For full marks, answers must explain methodology rather than merely identify it.
- In **Section C**, to access full marks, answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided.
- Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve full marks.

General comments

Section A

- Candidates did not always address the ‘stem’ of the question in **Section A**; this is crucial to answering each question part that follows.
- Answers must refer to the study the question is about. Many answers made general comments but needed to focus on the studies specified in many cases (see specific questions below for examples).
- Many answers correctly included advantages and disadvantages in **part (d)** questions but many did not relate these to the question which limited the credit available.
- Many conclusions repeated what had already been written, and such summaries could not be credited. A conclusion is a ‘decision reached by reasoning’ and so as the reasoning has been done through the advantages and disadvantages, a final decision/conclusion needs to be drawn.
- Candidates should think about what the question requires and avoid writing pre-prepared answers. Many questions will test the ability to apply knowledge from one thing to another, particularly methodological knowledge.
- Candidates should provide sufficient detail to score all the available marks. A single sentence is more likely to score one mark rather than two marks, so elaboration, explanation or exemplification that goes beyond the basic sentence is recommended. Candidates should always try to impress the examiner with their psychological knowledge.

Section B

Answers to **part (a)** questions in this section should include an appropriate design, have applied a range (four or five) of relevant methodological design features, each of which should be explained fully, showing good understanding. Many answers listed features such as ‘I would have a random sample’ and ‘It would be an independent measures design’ without explanation of why it would be a random sample, or how this would be obtained.

In **part (b)**, answers should explain the methodological decisions on which their **part (a)** design is based and also explain the psychological evidence on which their design is based. Describing a relevant piece of research from the topic area is insufficient and cannot be credited. The links between the research and how it informed the design must be shown. Some candidates wrote ‘I chose a self-selecting sample because

Milgram did' for example. This identifies a study using that technique, but does not explain the choice of sampling technique.

Section C

It is essential that answers focus on the question that is set. Every question in this section requires candidates to consider the extent to which they agree or disagree with the statement. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must use appropriate evidence to support the argument, and at the very top of the mark range answers should show awareness of wider issues and evidence that is relevant.

Section A

Question 1

- (a) Nearly all candidates scored 1 mark for writing 'an uncontrollable urge to steal' (or words to that effect). Some candidates scored full marks, most of whom expanding on this point that kleptomania involves experiencing tension before the theft followed by feelings of pleasure, gratification, or relief when committing the theft.
- (b) Many candidates did not answer the question fully. The question asked for limitations of the question above, i.e. the question from the K-SAS appearing in the stem. However, some candidates gave general responses than could apply to any question such as social desirability. Whilst this scored partial credit, it did not score full credit because answers were not related to the specific question.
- (c) (i) Many candidates knew how to assess reliability and described test-retest correctly. However, many of these candidates did not refer to the K-SAS at all and so did not score the second mark. It is essential for candidates to relate their knowledge to the question set.
(ii) As with **Question (c)(i)** many candidates knew how to assess validity and often wrote about concurrent validity. Sometimes examples from the AS component of the syllabus were used to support the answer but these were not always creditable as answers needed to focus on the validity of the K-SAS. Some candidates could not demonstrate knowledge of the term validity (or reliability) and some candidates confused the terms, scoring no marks.
- (d) Many answers included two advantages and two disadvantages and a conclusion, but many answers only scored partial marks because they were not related to measuring kleptomania as the question required.

Question 2

- (a) Marks could be scored in two ways: identifying 'field experiment' and observation (one of: naturalistic/covert/participant/structured), or identifying one research method (either of the above) and outlining how it was used in the study by Milgram.
- (b) Many candidates outlined two features, one of which is that 'the maintenance of the line depends on a shared knowledge of the standards of behaviour appropriate to this situation' (put another way, people have a script for queuing). The question stated 'according to Milgram', so the two features had to be those outlined by Milgram, demonstrating the candidates' psychological knowledge. Many answers were anecdotal of what a candidate had experienced when in a queue.
- (c) (i) The two response categories were 'physical action' and 'non-verbal objections' or words to the same effect. Most candidates scored full marks for these answers. Some candidates elaborated to give examples, but these could not be credited for this 'identify' question, and examples were required in **(c)(ii)**. It is recommended that candidates read all sub-parts of a question before starting an answer.
(ii) Most candidates provided two answers directly from the Milgram study. The most common physical action was 'pushing the intruder firmly out of the line', although 'tugging at the sleeve' or 'tapping on the shoulder' were equally acceptable. For non-verbal objections, 'dirty looks' and 'hostile stares' featured prominently. A few candidates gave anecdotal answers.

- (d) Like **Question 1(d)**, many answers included two advantages and two disadvantages but often focused exclusively on stooges with no mention of consumer behaviour. Some candidates appeared not to know what a stooge is given some of the advantages and disadvantages included in answers.

Question 3

- (a) Most answers scored full marks by stating that 'imagery is an image or picture a person has in their mind about an object, event or particularly a scene which is pleasant, relaxing and brings happiness/a smile to the person imagining the scene'. Some candidates provided partial answers which scored limited credit.
- (b) Two reasons were required. Many candidates were unable to score full credit for the following reasons:
- Candidates described the results. Describing results shows that it was successful, but the question asked why imagery was successful.
 - Candidates gave anecdotal answers.
 - The question stated 'according to Bridge et al.', and so the two reasons had to be those outlined by Bridge et al.
- (c) (i) Many answers incorrectly suggested a repeated measures or a matched pairs design. Some candidates suggested that the design was a laboratory experiment, both these errors showing a lack of understanding of both methodology and the study itself. Bridge et al. used an independent measures design and had different women do the three conditions: relaxation only, relaxation plus imagery, and control. Applying this study, if repeated measures had been used then confounding would have occurred (i.e. cannot be control or relaxation only if imagery has already been learned).
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- (d) The question stated 'people who are ill' and this allowed a wide range of examples to be included. However, examples were sparse, anecdotal or absent. There were two common misconceptions in relation to longitudinal studies:
- They are not exclusively a study of one person. Many longitudinal studies involve quite large samples.
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