PSYCHOLOGY

Paper 9990/12

Paper 1 Approaches, Issues and Debates

Key messages

Candidates need to know all components of every core study as listed in the syllabus. Questions can be asked about any part of a core 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, a named issue to be included or relate back to a previous answer. 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 or just described.

Candidates need to be careful about how they present 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.

Candidates need to engage with any stimulus material presented in a question (for example, 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 with an explicit example from that study.

Candidates need to be able to explain similarities and/or differences between studies based on psychology. Brief, commonsense responses can rarely be credited.

Candidates need to appreciate 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.

Candidates need to know the set procedure of studies in the order presented in the original journal article. Questions can be based around just part of a procedure and the candidate must be able to produce an answer that is directed and concise rather than writing about the whole of the procedure. This can sometimes mean a candidate may run out of time for other questions.

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. This is a crucial skill to develop as some candidates appear to have good knowledge of a study but do not apply this effectively to the question(s) set.

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.

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 in terms of what and how.

There were an equal amount of blank responses than in previous series. As positive marking is used, candidates should attempt all questions even if they are unsure of the answer they are providing.

Comments on specific questions

Question 1

(a) A majority of responses correctly stated the third label used by Alex in the study by Pepperberg. Common incorrect responses included the word texture, an example of a shape used (e.g. blue square), or another concept like number.

(b) Stronger responses could clearly outline the indirect experience Alex had with 'novel' objects. Common points made by candidates included them being shelved in full view of Alex. However, the majority of responses were not correct. Common errors included writing about the Model-Rival Technique, or the procedure using the Principal Trainer. It is important for candidates to read the question carefully to ensure that they are providing the correct part of the procedure.

Question 2

The majority of responses could describe part of the original Eyes Test. Popular choices included the number of pairs of eyes and that there were only two options to choose from. There were some responses that clearly described four points about the original test. However, some responses presented the revised version of the Eyes Test or wrote about what was not included in the original which was included in the revised. Again, it is crucial for candidates to read questions carefully.

Question 3

There were many correct responses to this question in terms of at least identifying and outlining a problem with using children in the study by Milgram. Popular choices included ethical issues and children not being able to understand the instructions given. However, there were a significant minority of responses that explained more than one problem as in this scenario only the best problem was credited. It is important for candidates to note the number of marks assigned, and the number of problems that need to be addressed (e.g., one), to a question as this typically represents the number of correct elements that need to feature in a response.

Question 4

(a) Stronger responses could clearly describe four parts of the specified procedure. Popular parts included the use of electrodes, the EEG being in ponytail, and being woken up by a doorbell. Incorrect responses tended to describe a different part of the procedure, for example, what participants were expected to do before arriving at the laboratory. It is important for candidates to read the question carefully and only write about the part of the procedure required by the question.

(b) There were some clear, detailed conclusions provided by candidates to this question. However, the majority of responses provided a result and not a conclusion. There were instances where candidates wrote about length of time in REM, but the question was specifically about eye movements in REM. Candidates need to know the difference between a result and a conclusion.

Question 5

(a) A majority of responses outlined an alternative aim than the one presented in the question. The most popular was responding to the needs of others via targeted helping. Several incorrect responses re-wrote the aim that was in the question or provided part of the procedure of the study.

(b) (i) There were some clear, concise responses to this question. For example, some provided the data for the number of trials when an object was offered, whilst others outlined what Ayumu did during this part of the study. There were many responses that were generic descriptions of other parts of the study (e.g., part of the procedure, what was concluded) that could not be credited.

(ii) There were some clear, concise responses to this question. Stronger responses could provide data-based results about frequency of tool offering or those tools given upon request. However, as with **Question 5(b)(i)** there were many responses that did not address the question. Candidates need to know the key results from all 12 core studies.

Question 6

(a) Stronger responses could clearly describe the background to the study by Laney et al. Popular examples included the study by Braun et al., description of false memories, and how there had been little research into positive false memories. There were a significant number of responses that just described the study by Laney et al. To improve, candidates need to know the background to all core studies. The background is about previous research, definitions of concepts and what may be novel about the study. This question had the most blank responses on this paper.

(b) The majority of responses could outline an assumption of the cognitive approach. Stronger responses could then use an example from the study by Laney et al. to explain why this study was researching cognitive processes. Popular choices focused around the retention of information and the way we process information.

Question 7

The majority of responses could suggest one real-world application based on Bandura et al. Popular choices included children being taught to be prosocial, and parents restricting the amount of violent TV / video games that a child should be exposed to. As with all questions relation to real-world applications, it is important for candidates to outline what the application is and then explain how it can be achieved using evidence from the named study, in this case Bandura et al. Some responses described the study by Bandura et al. with no application or suggested future research that could be based on the study. Neither of these could be awarded credit.

Question 8

Stronger responses could clearly outline the individual-situational debate and provide clear examples from the study by Canli et al. Popular examples included participants having varied ratings for the images presented (individual) and the process of being in a brain scanning machine (situational). There were a significant number of responses that were tautological and could not access marks. For example, stating that the situational side of the debate is about the situation cannot be credited as it is simply re-using the words in the question and does not explicitly show understanding. Also, some responses gave examples from everyday life rather than from the study by Canli et al. To improve, candidates need to have examples from each core study that appropriately support each of the issues and debates at AS-Level.

Question 9

(a) The majority of responses could describe at least three features of the sample used in the study by Piliavin et al. Popular choices included it being an opportunity sample, the sample size, and the proportion of different races in the sample. Incorrect responses included describing the victims and/or models used in the study, or describing the procedure a victim went through as part of the study.

(b) The responses to this question varied significantly. Strong responses could clearly show understanding of confidentiality using an example from the study by Piliavin et al. Popular explanations included we only knew the gender and race of the sample. Some responses made tautological statements like confidentiality is keeping information in confidence. Some responses mixed confidentiality with privacy. These are different ethical guidelines. For informed consent, many responses could explain that the sample did not know they were part of a study on the subway so could not give valid consent. Protection from psychological harm was a stronger guideline in terms of correct responses. Responses focused on the fact that many participants did not know that the scenario was staged and left feeling guilty or stressed after witnessing this and not helping. The right to withdraw produced many weaker responses where candidates gave tautological explanations of this guideline (e.g., the participant has the right to withdraw at any time). Stronger responses could argue that participants could not withdraw as they were on a moving subway car, or that some of them did withdraw by leaving the critical area. To improve, candidates need to be explicit with their knowledge of an ethical guideline and then provide an example from the study that shows it was broken or not broken.

Question 10

The strongest responses evaluated the study by Andrade in depth and in terms of two strengths and two weaknesses with at least one of these points covering the named issue of generalisations. Common choices included generalisability, ecological validity, ethics, and quantitative data. These strong responses could explain why an element of the study was a strength or a weakness using specific examples from the study by Andrade to explicitly 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 study by Andrade 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 in these type of questions as it is testing their evaluation skills only. Some responses appeared to be prepared essays for Canli et al., and didn't include the named issue. A response that does not have one evaluation point about the named issue can only score Level 3 (6 marks) maximum. There were many responses that briefly outlined strengths and weaknesses with only some being in context, which is a Level 2 response. Any response that has no context cannot get above a Level 1 mark. In addition, many responses did use reliability in an evaluative sense but did not fully explain why it could be a strength and/or a weakness. Several responses did not cover the named issue. In this series, more responses were attempting to focus on real world application which tended to only be awarded partial credit as this question is evaluative in nature and not application. To be awarded credit for an evaluative point about application the candidate must present an evaluative strength and then, as a result of this strength, explain what positive real-world application can be seen as a consequence of the strength presented (e.g., good for students in the classroom to concentrate because Andrade found…). To improve on this question, candidates need to plan carefully, choosing two strengths and two weaknesses with one of these being the named issue, and it is recommended to avoid real world application. Each strength and weakness should be of equal length with an explanation as to why it is a strength or weakness with examples from the study to show clear understanding. These are the requirements for a Level 4 response.

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Paper 9990/22
Paper 2 Research Methods

Key messages

- This research methods paper asks candidates to answer a range of questions, including ones about the procedures and results of core studies, ethics in relation to humans and animals, research methods and relevant concepts, and the application of such knowledge to both familiar and unfamiliar contexts. Responses to this paper demonstrated a range of ability in these skills and in the application of knowledge to unfamiliar contexts.
- Candidates demonstrated excellent knowledge of basic concepts such as in the first four questions on the paper. However, many appeared to find evaluating the methods they had described, or applying that evaluation to specific situations, more challenging. One area of basic concepts where key knowledge was less evident was in the description of correlations and experiments. Here, candidates' responses often contained fundamental errors and/or lacked accurate description and examples.
- The ability to link accurate detail to a given scenario or context is also required on the paper. This more difficult skill was tackled well by some candidates, but less well, or omitted altogether, by others.

General comments

Candidates were able to access marks across the whole paper. Although the issues identified above limited performance for some individuals on some questions.

Candidates across the ability range were able to demonstrate knowledge of a range of aspects of research methods in this paper. Success was greater on low mark tariff questions such as **1** (null hypothesis), **2(a)** (drawing and labelling a graph), and **4(a)** (differentiating between questionnaires and interviews). These were typically very well done. On other question parts, based on a novel scenarios, candidates were also successful, (e.g. questions **7(a)(i)** and **7(b)(i)**). Note that even when candidates were able to provide good generic answers, or simple linked answers, (e.g. in parts **7(b)(i)** or the first mark of parts **8(a)(i)** and (**a)(ii)**) they found providing a link to their answer more difficult. Most candidates were also able to score some marks on more complex questions, such as question **9**, but less often earned full credit.

Question 10 was sometimes very well answered although many responses were incomplete. Most commonly this was because the candidate had not followed the rubric to describe an overt observation. This was an essential detail to achieve a mark beyond Level 1.

There were very few papers with responses for which the candidate provided no answer at all.

Comments on specific questions

Section A

Question 1

The majority of candidates were able to identify this as a null. However, a significant answered 'non-directional hypothesis' and some gave responses that were not a type of hypothesis.

Question 2

(a) Most candidates labelled the axes correctly and plotted points on their graph appropriately. The most common error was to plot the IV and DV on the wrong axes.

(b) Most candidates gave good answers although a small minority repeated data from the table rather than outlining, i.e. offering a short description of the data.

Question 3

Most candidates understood the question and earned some or all of the available three marks. Some candidates did not earn credit as they gave responses about other guidelines in relation to animals, or why animals should not be used at all. Only a very small number attempted to answer in terms of human guidelines.

Question 4

(a) Responses here were generally good, although a few answers referred to open/closed, or to qualitative/quantitative. One common error was to describe questionnaires as 'self reports' then interviews as being 'face-to-face'. This is incorrect as both are self-report techniques.

(b) Most answers referred appropriately to an advantage, such as less social desirability in questionnaires. However, fewer completed their answer to make a comparison required by the question for the second mark, such as the interviewer is not present.

(c) There were a range of appropriate weaknesses given here but very few candidates made an explicit link to the study by Laney et al. so earned only one of the two marks available.

Question 5

This question was not well answered. There were many general responses about more data or different types of treatments being useful because maybe one would work. Only a small number of candidates mentioned triangulation or checking for consistent/supporting findings between different techniques. Nevertheless, many earned 1 mark for identifying the collection of both qualitative and quantitative data as a strength.

The answers simply saying it is an advantage to collect more data, or to collect in depth data, were not creditworthy but could have been improved by saying either 'More *types* of data*, such as qualitative and quantitativ*e', or 'To collect in depth data *and numerical data'.*

Question 6

The question was not well answered. With respect to correlations, many responses suggested candidates did not understand that it is only possible to correlate data that is on a scale. For example, it is not possible to correlate 'eye movements' or 'content of dreams' with the length of the REM phase only '*duration* of eye movements' or the '*length* of the narrative about dream content'.

A common misassumption was that correlations can test causal relationships, or that one variable in a correlation cases changes in the other. Lower scoring responses described correlations having an IV and a DV.

With respect to experiments, most candidates identified that experiments looked for causal relationships or the effect of an IV on a DV, though fewer mentioned artificial environments or controls. Many candidates incorrectly described Milgram's study as an experiment.

A common general mistake was to list rather than 'describe' as required by the question. For example, candidates often just listed types of correlations or types of experiments or experimental designs.
A minority of candidates described either only correlations or only experiments, rather than both as required by the question. Further candidates wrote about 'correlations and experiments' as if they were the same thing.

Section B

Question 7

(a) Many candidates simply said 'scale', but did not give measures. Some candidates also suggested things that were not quantitative such as 'posture'.

(b) (i) Many candidates gave simple but full mark earning answers such as sex/gender or age but there were also some thoughtful ones, such as type of work, hours of work, pay, amount of stress outside work and so on. These tended to lead to better responses in **part (b)(ii)**. A minority of candidates inappropriately described possible IVs and DVs for this or related studies.

(ii) Responses to this question part were generally good, although some candidates explained answers simply in terms of 'there might be age differences', or even that this would mean that the study could examine age differences. As noted above, the more thoughtful ideas in **part (b)(i)** led to some excellent responses here, such as having longer work hours meaning less time for hobbies/vacations thus leading to being less relaxed anyway or having a more senior job / being an executive would mean more responsibility and therefore more stress.

Question 8

(a) (i) (ii) Most candidates identified the correct guideline but then simply explained it, so repeating what was in the question. Very few gave clear examples relevant to the study thus were unable to access the second mark for each question part.

(b) (i) (ii) Both of these question parts were generally well answered, although some candidates did not include a link to the study so could not earn the second mark in either part. This was more often the case in part (ii).

(c) There was a common general understanding in responses that her belief would produce bias, or would prevent her from looking at other factors. However, there was often an indication of confusion about learning in the responses. For example, some candidates said that there would be other factors apart from learning but then proceeded to give examples of learning. Nevertheless, a range of other creditworthy suggestions were given, including taste, allergies, personality, parental income and the child's gender.

Question 9

(a) This question part was not well answered and the responses of some candidates seemed to be confused. This may have been because they had misunderstood the stem and thought that the parrot was being taught to speak.

(b) Many candidates earned some or all of the available marks, often by recognising that this could present a problem from both the experimenter's and the parrot's perspective, including some appropriate references to animal ethics. Although the question was generally understood, some candidates seemed to find this difficult to explain, often repeating the point about similarity more than once.

(c) As with **part (a)** of this question, responses often indicated misunderstanding. Some answers referred to inappropriately to ethics, and many mistakenly referred to *inter*-rater reliability. Nevertheless, there were some very good answers.

Section C

Question 10

(a) Many of candidates appeared not to understand the meaning of 'overt' or to have confused this with covert. In many scripts where the candidate explicitly said that this was an overt observation, their description was of a covert observation or they explicitly said it was important that participants did not know they were being observed. This meant that many candidates who had described behaviours to be recorded well, and had other detail such as a description of it being a naturalistic observation, or a controlled observation, still achieved limited credit at Level 1. This illustrates how

critical it is to understand the basic terms of research methods. A few candidates designed questionnaires or interviews rather than observations.

A minority of candidates were giving (made up) 'results' for their study. This is not required and does not earn credit.

(b) This question part was sometimes answered well, especially by candidates who had given Level 2 responses in **part (a)**. Many successfully suggested following the observation with a questionnaire to check the reasons for snubbing, such as to eliminate emergencies, or where both individuals were actually working.

PSYCHOLOGY

Paper 9990/32
Paper 3 Specialist Options: Theory

Key messages

Question 1(a), 3(a), 5(a) and 7(a) –

It is important that candidates have knowledge of the theories/explanations, terminology, and key features of studies identified in the syllabus. Some candidates were unable to identify and/or define the theories given in these type of questions. Creating a glossary of key terms, revision of terminology/theories/studies using flash cards and class quizzes on terminology/theories/studies could prove useful. 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, study or self-report used by psychologists that is named in the syllabus. These questions could also ask the candidate to describe a part of one of the named studies, such as the procedure or results, 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. It would be helpful for candidates to create a revision flashcard or mind map of each bullet point in the syllabus. The flashcard should be given the title used in the syllabus, for example, Schizophrenic and psychotic disorders: characteristics of schizophrenia spectrum and psychotic disorders: symptoms assessment using virtual reality (Freeman, 2008) to help the candidate identify which part of the syllabus the question is referring to as some candidates described the incorrect study. For studies, it is recommended that the candidate should learn the aim, sample (sampling method if known), method, procedure, two results (if possible) and conclusion.

Questions 1(c), 3(c), 5(c) and 7(c) –

These questions could require the candidate to explain up to 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 or method. 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, many of the responses were general and not specific to the study, theory or technique(s) named in the question. To improve, responses should give specific examples to support their point. As mentioned for the odd question **part (b)**, the candidate should make a flashcard/revision notes and could include in this strengths and weaknesses of the theory, study, technique and self-report to help candidates prepare for these questions.

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, characteristics/explanations/treatments of disorders or techniques identified in the syllabus under the appropriate bullet point. For this exam, some of the answers used the incorrect topic area in the syllabus or the description was brief. It is possible for the responses to achieve full marks by describing at least two of the studies, theories, characteristics/explanations/treatments of disorders or techniques and this would need to be a very detailed description. It is also important that the descriptions are linked to the topic area named in the syllabus. For example, **Question 6, part (a)** needed to be linked to types of non-adherence, reasons why patients don't adhere and the health belief model. Some candidates attempted to use other parts of the syllabus such as verbal and non-verbal communication to answer this question which was not linked to types or reasons why patients don't adhere. It could be useful for candidates to create revision notes with the title of each bullet point as the header. Alternatively, candidates could create a mind map and put the bullet point in the centre.

Questions 2(b), 4(b), 6(b) and 8(b)

This question will always ask the candidate to evaluate the studies, theories, characteristics/explanations/ treatments of disorders 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 using 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 three issues tended to achieve higher marks as these responses were able to demonstrate comprehensive understanding with good supporting examples from the studies, theories, characteristics/explanations/treatments of disorders or 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 to structure the response 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.

Some of the candidates did not evaluate using the named issue. Quite a few of the answers were structured by study/theory/technique rather than by the issue which often led the response to be quite superficial and repetitive. A number of the responses did do 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 candidates were well prepared for the exam and showed good knowledge, understanding and evaluation throughout their responses. Some candidates appeared not to be as well prepared and showed limited knowledge and understanding with brief, superficial and sometimes anecdotal responses. These candidates often demonstrated limited evaluation skills.

Time management for this paper was good for the majority candidates and most attempted all questions that were required. 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 were the more popular choice of option, followed by organisations.

Comments on specific questions

Psychology and Abnormality

Question 1

(a) There were some strong responses to this question which outlined the genetic explanation for schizophrenia and delusional disorder. Common responses included identifying that schizophrenia is inherited. Many also gave the results of the Gottesman and Shields study for both the monozygotic and the dizygotic twins. A number of responses achieved 1 mark often by identifying that the disorder is inherited. There was some lack of understanding of concordance with a number of responses stating that schizophrenia was more common in monozygotic than dyzygotic twins which was not creditworthy.

(b) There were some very good answers with many achieving full marks for this question. Most responses correctly identified the sample, at least one of the measures, a description of the virtual world and a finding. There were some very detailed responses that were too long for a 4 mark question. Some of these outlined reasoning as to why the use of virtual reality was an improvement on current interview techniques, which did not address the question and was not creditworthy.

(c) There were many level 2 marks given to responses for this question. This was often achieved by a brief outline of the point and then a brief example from the study. Common strengths included reliability and the control of variables. Common weaknesses included the use of a non-clinical sample and how the finding may not apply to those with schizophrenia and lack of ecological validity. To achieve level 3, candidates need to give an extended example from the study that explains why this is a strength or weakness of the study or the implications of this strength/weakness.

Question 2

(a) Responses varied considerably for this question and covered the full range of the marks available. Some responses highlighted how well prepared some of the candidates were for this exam whereas others showed very limited knowledge of the treatment and management of anxiety disorders. There were some responses were detailed, accurate and coherent with a good use of psychological terminology. Systematic desensitisation was the best described of the three treatments with clear explanation as to how this would treat a phobia. Applied tension and cognitive-behavioural therapy were sometimes clearly described and some responses gave good outlines of the studies by Ost et al. and Ost and Westling. Some responses appeared to be confused about the difference between applied tension and applied relaxation. Weaker responses gave more limited details of the treatments and often did not explain how each treatment helped the person with a phobia/anxiety.

(b) Many of the responses achieved in the level 1 or level 2 mark band with a small number providing clear analysis and examples from **part (a)** to back up their evaluative points that enabled these type of responses to achieve level 3 and above. Many strong responses focussed on three issues in detail rather than larger numbers in a more superficial way. The vast majority of responses covered the named issue of determinism versus free-will. Other common issues included ethics, reductionism versus holism, nature versus nurture and individual versus situational. To achieve level 3 and above, responses need to provide analysis such as explaining how a treatment could be both deterministic and have a degree of free-will. Weaker responses evaluated on a treatment-by-treatment basis rather than issue by issue and these responses were often very superficial.

Psychology and Consumer Behaviour

Question 3

(a) The marks for this question covered the full range of the mark scheme. Full mark responses were able to make clear what the stimulus could be, the 'black box' and the response with an example about buying a product. Those that achieved 1 mark often did so because they did not link their response to consumer behaviour. Responses that were not creditworthy often outlined a different model such as the AIDA model or Ajzen's theory of planned behaviour which was not creditworthy.

(b) There were some clear and somewhat detailed responses describing one of the studies done by Atalay et al. on attention and shelf position. Study 1A was the more popular choice. Some gave details of the sample, procedure and a finding from the study. Weaker responses gave fewer details or gave details of all three studies presented as one study.

(c) The marks for this question tended to be level 1 or level 2. Common points regarding reliability included the controls used and the standardised procedure followed during the study. Better responses were able to give examples from the study outlined in **part (a)** to back up their points. Weaker responses often gave no example or confused reliability and validity and outlined points such as lack of generalisability which did not answer the question and were not creditworthy.

Question 4

(a) There were a number of good and detailed descriptions of types of advertising, market mix models and product placement in films. The 4 Ps and 4 Cs had the best descriptions given followed by an outline of the study by Auty and Lewis. Weaker responses often gave fewer details of the Auty and Lewis study or gave some incorrect details of this study. Some described either the 4 Ps or 4 Cs but not both. Some responses gave an outline of the Fischer et al. study on brand recognition in children which did not answer the question and was not creditworthy.

(b) The vast majority of responses achieved level 1 for this question. This was mainly due to the responses being very brief. Most did attempt the named issue of practical application and were able to say how companies could make use of the 4 Ps and 4 Cs in promoting their products and increasing sales. Some did give clear practical applications for the Auty and Lewis study although most just stated that they should put products in films. Another popular evaluation issue was ethics and many responses were aware of the fact that consent was taken from the parents in the Auty and Lewis study and how this made the study ethical. However, some simply stated that consent was not obtained from the children/participants and this made the study unethical which showed a lack of understanding of ethical issues when working with children. Weaker responses tended to lack examples or just did the evaluation issue of practical applications and no other which limited the marks they could achieve for this question.

Psychology and Health

Question 5

(a) The majority of responses achieved full marks for this question by identifying two of the stages in the model of delay in seeking treatment. Despite only needing to write a brief answer such as 'appraisal delay and illness delay', a significant number of responses wrote answers more suited to a 4-mark question.

(b) There were a few strong responses to this question with some giving two clear findings from the study by Aleem and Ajarim. Common findings included the staff finding the syringe of faecal matter and the patient absconding from the hospital and reference to the patient attending many hospitals. Weaker responses tended to give one finding from the study. A significant number of responses gave general characteristics of Munchausen syndrome which did not answer the question and was not creditworthy.

(c) Many responses were able to provide a discussion of two points about validity with an example given from the Aleem and Ajarim study. These often cited the detail given in the study, ecological validity of the study and the lack of generalisability due to one participant. Weaker responses often just identified or briefly outlined a point about validity without giving an example from the study to explain their point.

Question 6

(a) The responses to this question covered the full range of the mark scheme. Stronger responses gave clear and often detailed descriptions of types of non-adherence to medical advice, reasons why patients do not adhere, and the health belief model. The Bulpitt study was often described in some detail. Weaker responses often gave fewer details or did not link their response to why patients do not adhere. There were some responses who used other parts of the health syllabus to try and answer this question such as verbal and non-verbal communication which were not creditworthy.

(b) There were some strong responses to this question. These were often able to evaluate the named issue of individual and situational explanations and were able to use the descriptions from **part (a)** as examples. A few responses did some good analysis by outlining why a theory or study could be considered to offer both a situational and an individual explanation. Other common issues included nature versus nurture, generalisability and applications to everyday life. Weaker responses often structured their answer by theory/study and identified a large number of evaluation issues but often just stated whether they thought the study/theory was or was not in support of the issue with no other details/explanation or examples given. These types of responses were very superficial in nature and achieved level 1.

Psychology and Organisations

Question 7

(a) There were some strong responses to this question with the most popular full mark answer about having a devil's advocate in the group to avoid groupthink. Weaker responses often mentioned dividing the group into smaller groups but did not refer to any of Janis' strategies to avoid groupthink. A significant number of candidates were not able to demonstrate knowledge of any of

Janis' strategies and appeared to guess at a possible way to avoid groupthink which did not achieve any marks.

(b) This was often well answered with many responses achieving full marks. Common responses included referring to competition, compromise and avoidance and explaining how this would manage group conflict. Weaker responses sometimes confused some of the ideas and identified competition but then outlined compromise which meant they could not achieve full marks for this part of the response.

(c) The marks for this question covered the full range of the mark scheme. Stronger responses outlined the difficulties of obtaining accurate data on group conflict, often referring to social desirability or the subjective nature of who may be at fault. They were often able to give some detailed examples to back up their points which enable them to achieve in level 3. Weaker responses were brief / lacked examples. Some responses demonstrated a misunderstanding of the question and instead referred to the problems that group conflict can cause within an organisation itself. These types of responses were not creditworthy.

Question 8

(a) There were a few strong, detailed responses to this question. Some candidates displayed good knowledge of Hertzberg's two factor theory, job characteristics theory, techniques of job design including rotation, enrichment and enlargement. The strongest descriptions were of the two factor theory and techniques of job design. Weaker responses often gave fewer details with some confusion between motivators and hygiene factors in the two factor theory. Weaker responses often either did not include job characteristics theory or gave an inaccurate response.

(b) There were a few strong responses to this question. These candidates often started their response with the named issue of reductionism versus holism and were able to explain how these theories/techniques about job satisfaction are either reductionist or holistic. Some responses were able to outline what they felt was missing from the theory. Others argued that it was holistic and could provide some limited examples to justify this point. Other common evaluation issues for this question were practical applications and individual and situational explanations. Weaker responses tended to be very superficial and many did attempt reductionism versus holism but did not demonstrate sufficient knowledge of the meaning of this debate so were not able to achieve marks for this part of the their answer. Some candidates had overwritten the **part (a)** of their answer and therefore ran out of time to answer this part of the question and gave a very brief response which achieved low marks.

PSYCHOLOGY

Paper 9990/42
Paper 4 Specialist Options: Application

Key messages

(a) What has been learned from the AS component of the syllabus should be transferred to the A2 component. For example, at AS candidates learn about methodology, such as experiments, which also apply to A2.
(b) Questions should be read carefully ensuring that the focus of the response is on what the question asks.
(c) 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) examples of each and a conclusion.
(d) In **Section B**, **Questions 5, 6, 7** and **8**, methodological knowledge must be evident and detailed for top marks to be accessed. The procedure, however detailed, is just one methodological aspect. For top marks, answers must explain methodology rather than merely identify it.
(e) In **Section C**, **Questions 9, 10, 11** and **12**, to access top marks answers must include a debate which has two sides, such as strengths/advantages and weaknesses/disadvantages. Supporting evidence should also be provided. Description cannot be credited.
(f) Psychological knowledge should be applied wherever possible. Anecdotal and common-sense answers will not achieve top marks.

General comments

A few candidates answered questions from one option only. Some candidates answered questions from three and even four options. Whilst answers to one option were often very good, some answers to the second option were very poor, often limited to anecdotal or common-sense responses. Further, there were some examples of weak examination technique which candidates would benefit from improving.

Section A

- Candidates are advised to read the 'stem' of the question, the introduction or the opening words in Section A questions as the information provided is crucial to answering the question parts that follow.
- Answers must refer to the study the question is about. Many answers provided general comments which were unrelated to the study itself.
- For question **part (d)**, many answers correctly included strengths and weaknesses but often these were not related to the question, and so restricted marks. For example, to score 1 mark, answers must include a strength (or weakness) and an example.
  Candidates should not use terms without explanation. Frequently answers were limited to 'it is reductionist' or 'it is useful in everyday life' without further explanation. To state 'it is reductionist' is merely to identify; it is not automatically a strength or weakness. Further many candidates appeared to assume that to be reductionist is always a weakness. It is not; any experiment is reductionist because variables are controlled and only the IV is manipulated. Reductionism is the basis of any experiment and as such it is a strength.
- Many conclusions merely repeated what had already been written, and such summaries scored no marks. 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 focus on what the question requires and should not write pre-prepared answers. Many questions will test the ability to apply knowledge from one thing to another, particularly methodological knowledge.
- Candidates should always provide sufficient detail to score all the available marks. A single sentence is more likely to score 1 mark rather than 2 marks, so a little elaboration, explanation or example that goes beyond the basic sentence is always recommended. Candidates should always try to impress the Examiner with their psychological knowledge.

Section B

Many candidates design an experiment whatever the question. An interview, questionnaire or observation and methods independent of an experiment may be required, and candidates should not try to make other methods 'fit' into an experimental format. 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. Merely describing a relevant piece of research from a topic area is insufficient to score full marks. The links between the research and how it informed the design must be shown. Further, there is no need for a name (date) to be quoted for each sentence, with some candidates writing 'I chose a self-selecting sample because Milgram (1963) did' for example. This just identifies a study using that technique. It 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 invites candidates to consider the extent to which they agree or disagree with the statement. Candidates are not required to describe everything they know about that topic area, and answers that don't address the question will only achieve minimal marks. To score marks at the top end of the mark range, answers must focus on arguments both for and against the statement, answers must the 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.

Comments on specific questions

Section A

Question 1

(a) Nearly all candidates achieved full marks in their responses to this question on the procedure of electroconvulsive therapy. Typical features include: giving a muscle relaxant, applying electrodes, and giving an electric shock which results in 'twitching' or convulsing. A few candidates provided only one of these features and so were awarded 1 mark rather than 2.

(b) (i) This question was answered correctly by many candidates who could identify a relevant chemical treatment for depression, such as SSRIs and MAOIs, and provide an explanation of how one of these worked.

(ii) Providing one weakness was easy for most candidates and earned them 1 mark, but only 2 marks were awarded for those who elaborated or gave an example. Some candidates wrote nothing more than 'these drugs are addictive' for 1 mark, and others wrote 'these drugs have side effects such as hypertension, dizziness and nausea' (worth 2 marks). Candidates should always provide some elaboration or give an example as this is what always earns the second mark of a 2 mark question.

(c) Very few candidates were awarded the full four marks for this question because they often did not answer the question set. The question asked for treatments for depression, not for explanations of depression. Typically, candidates described the A, B and C proposed by Ellis, explaining the theory. What they often failed to do was provide the D and E, the Disputing and the Effects of successful disruption which is the essential part of the treatment. Similarly, Beck's cognitive triad was explained but needed to include the essential 'challenging the negative thoughts' etc.

(d) These comments will apply to all **part (d)** questions because the same error occurs in each option. Candidates are good at providing strengths and weaknesses. However, they need to relate these to the question to achieve full credit. For this question for example, candidates would write 'one weakness is that there are side effects' and achieve 1 mark. However, side effects in relation to

what? Candidates who wrote 'one weakness of giving ECT is that there are side effects such as loss of memory' is clearly relating the weakness to ECT and 2 marks can be awarded.

Question 2

(a) Most candidates were awarded 2 marks for identifying the two conditions of the independent variable which were the scent condition and the no-scent condition. Some answers described how the scent was implemented, with no mention of the no-scent condition and were awarded 1 mark.

(b) There were two types of answer to this question. Some candidates did not know the study by Chebat and Michon (2003) and appeared to guess, and nearly always scored 0 marks. Other candidates knew the study and quoted directly from the range of possibilities. For example: 'all special promotions, etc. were cancelled for two weeks' and 'the students giving questionnaires were instructed not to wear perfume'.

(c) To answer this 4 mark question candidates needed to know a model of the effects of ambience, such as the Mehrabian and Russell (1974) pleasure/arousal/dominance (PAD) model or the cognition–emotion model by Lazarus (1991). There were some excellent descriptions of these models with good understanding and if the effects of the scent were related to the model, the full four marks could be awarded as was sometimes the case. Many candidates were not able to demonstrate knowledge of either model.

(d) Most answers included two strengths and two weaknesses of questionnaires, but most answers did not mention the effect of odour at all. This resulted in limited credit, each strength or weakness needed to be related to the effect of odour on shopper behaviour for further credit. An additional mark was available for a conclusion, but nearly always a summary was given rather than a conclusion.

Question 3

(a) A clinical interview is an interview between a doctor/medical practitioner and a person/patient designed to diagnose symptoms, prescribe or assess treatment. Additionally marks were awarded for stating that the interview could be face-to-face or telephone or online; is a verbal and non-verbal exchange; it usually takes place in a medical setting. It should be noted that a clinical interview is a real-life interview between a doctor (or medical practitioner) and a patient rather than a method within a research study (see **(d)** below).

(b) The syllabus lists verbal and non-verbal as two communication skills, and candidates identifying these two were awarded 2 marks. Candidates providing some elaboration or example, such as including the studies by McKinstry and Wang, and McKinley or Ley were awarded 2 further marks. Candidates writing about patient-centred styles also scored marks. However, answers such as 'one communication skill is showing understanding', or 'doctors should show sympathy' scored 0 marks.

(c) There were many detailed answers to this question with candidates showing good understanding. Most described the Paediatric Pain Questionnaire (Varni and Thompson, 1976) and the Wong-Baker scale (1987). Other pain measures for children were included in answers and these also received credit. The MPQ (McGill Pain Questionnaire) was not credit worthy because it is too complex for children to use.

(d) Candidates were required to consider a clinical interview, between a doctor and a patient in a real-life setting, rather than an interview with a participant in a study, and responses focussing on gathering quantitative and qualitative data, demand characteristics etc did not answer the question set. Candidates were awarded marks for including strengths such as 'the patient can provide a detailed answer to open questions the doctor may have such as where their pain is, how much it hurts and answer any other questions the doctor may have'.

Question 4

(a) Nearly all candidates scored 2 marks by providing two findings. Some candidates looked at findings across variables such as work satisfaction across the three time periods, or they compared two or more variables for one time period. A few candidates only provided one finding and scored 1 mark and some answers were too vague to score any marks such as 'the variables differed over time'.

(b) The question for parts **(b)(i)** and **(b)(ii)** referred to a strength and a weakness of a seven-point scale. Most answers were awarded 1 mark for providing a strength and 1 for a weakness. An answer worth 2 marks (for a strength) might be 'a 7-point scale provides for a wide range of answers (1 mark) allowing the ratings of participants feelings about open plan offices to be assessed (2 marks).

(c) Most candidates were awarded the full four marks for correct answers. A typical answer would be 'an inability to concentrate (1 mark) e.g. because there is too much background noise and distractions from other workers' (2 marks) similarly 'an inability to develop close friendships (1 mark) e.g. because there is no privacy in an open plan office' (2 marks). 1 mark was awarded for identifying the problem and 1 mark awarded for elaboration or example.

(d) Responses did not always relate the strengths and weaknesses given to the question, in this instance open plan offices, and did not always provide a conclusion. A conclusion, stated on all mark schemes, is a 'decision reached by reasoning' and so when a candidate provides a summary of points already made scores 0 marks.

Section B

Question 5

(a) Although there were some excellent answers, many candidates scored very low and even 0 marks for providing incorrect answers, of which there were two types. Firstly, in many answers there was no mention of observations, when the question required a study using observation to be designed. Such answers included questionnaires and interviews, but no observation. Secondly, candidates applied their design to people with impulse control disorders (ICDs) such as those with kleptomania, pyromania and gambling disorder and not to people with obsessive compulsive disorders (OCD).

(b) The psychological evidence in the strongest answers included characteristics of OCD and more importantly common compulsions (because that was the focus of the question rather than obsessions) such as repeatedly checking to make sure that doors and windows are locked or that appliances are turned off or excessive cleaning. These features informed the methodology with the strongest answers suggesting a structured observation creating behavioural categories that included repeated checking, excessive cleaning as well as other possibilities.

Weaker answers did not relate the features to their methodology, often just designing 'an observation'.

Question 6

(a) This question allowed candidates to use a method of their choice with most opting to plan a field experiment and use questionnaires to gather data. Some very strong answers were written, full of appropriate terminology and showing coherence throughout the plan. Other answers were lacking in essential terminology, such as IV and DV. If a questionnaire is used then it is insufficient to state 'I would give participants a questionnaire', responses need to include whether the questions are open or closed, provide a sample question and how it is to be answered, etc. The plan also needs to show knowledge of the question set. Some answers continuously referred to 'store layout' without any elaboration compared to others who might state 'my independent groups design meant that some participants were allocated to the grid layout and others to the free-form layout'.

(b) For psychological knowledge, many candidates wrote about the work of Vrechopoulos (2004) who identified 3 types of interior store layout: grid, free form and racetrack/boutique. Other candidates wrote incorrectly about store lighting, incorrect because lighting is not store layout. Other candidates, usually those who referred to 'store layout' without any elaboration in **part (b)** also scored 0 marks. Many candidates needed to explain how the psychological knowledge they had written about informed their design. Evaluation is not required by this question and cannot be credited. Candidates should explain their reasons for decisions they made, such as why they opted for a field experiment or why they asked closed rather than open questions.

Question 7

(a) The question required candidates to conduct an experiment comparing acupuncture with non-pain imagery. Like **Question 6**, there were many excellent answers showing a wide range of terminology appropriate to experiments such as IV, DV, controls, design and type of experiment. Stronger answers also showed good understanding by applying an independent design; others opted for repeated measures where one treatment was applied following another but this would confound any result.

(b) Although some candidates were unclear about acupuncture and non-pain imagery, others described the two in detail. Stronger answers applied this knowledge to their design whilst weaker answers did not. Methodologically stronger answers explained their design decisions, such as why they had chosen an independent design, whereas weaker answers merely stated a generic argument for or against the design they had applied without explaining why they had used it, showing evaluation rather than application which could not be credited.

Question 8

(a) A 'design a study' question allows candidates a free choice of method. However, some candidates attempted to use multiple methods, rather than selecting one. Answers which started as experiments often observed the target then give questionnaires and then interviews to participants. The result of this strategy is that the design is very confused and no method is done adequately. One method in detail, i.e. with the essential features of that method included is the best strategy. For this question an observation would have been most logical, but for many candidates who chose this method, they were observing 'adaptive leadership' often without demonstrating any further knowledge.

(b) Some candidates were not able to demonstrate any knowledge about adaptive leadership, or they used autocratic/democratic leadership instead. Many candidates did know about adaptive leadership and those awarded higher marks applied the knowledge in their designs.

Section C

Question 9

Answers achieving the highest marks outlined why biomedical treatments for OCD are relevant and then considered the arguments why they are not. Consideration of the arguments for and against cognitive treatments then followed. Answers achieving lower marks included only a limited range of points or considered only one side of the debate. In such cases the biomedical approach was considered in detail with only a sentence or two on cognitive treatments. A few candidates provided answers which were purely descriptive which could not be credited.

Question 10

There were two reasons why candidates did not score high marks in response to this question. Firstly, there were answers limited to description of different types of intuitive thinking (thinking fast and thinking slow) often without any evaluation. The second reason was that candidates often gave examples to illustrate the different types of thinking, which were not linked to the consumer behaviour and did not answer the question set.

Question 11

Answers to this question were mainly descriptive rather than evaluative. Candidates needed to consider the reasons why psychological techniques to manage stress are more effective than medical techniques and include points such as: 'psychological techniques such as biofeedback and imagery can be applied by the person anywhere and anytime' and 'psychological techniques need the person to be active, rather than passive, and involved in their own treatment'. Against psychological techniques points such as 'medical techniques such as drugs do not need relaxation techniques, cognitive therapies or any other time-consuming exercises'. Rather than adopt this evaluative approach many answers were limited to description of the studies on biofeedback (Budzynski et al., 1969) and imagery (Bridge, 1988).

Question 12

Responses appeared to be based on an assumption that ‘everything reductionist is bad’ and most of these responses didn’t elaborate further on this point. Frequently the holist debate was not considered, and neither was the argument that being reductionist is highly desirable. Only a handful of answers made the point that any psychological experiment is automatically reductionist because what is being studied is reduced to one variable which is isolated from all others which are controlled. This is what happened in the Hawthorne studies with lighting being the one variable investigated at that time. Answers often focussed on evaluation of the Hawthorne studies rather than discussion of reductionism.