GCE A LEVEL

eduqas
Part of WJEC

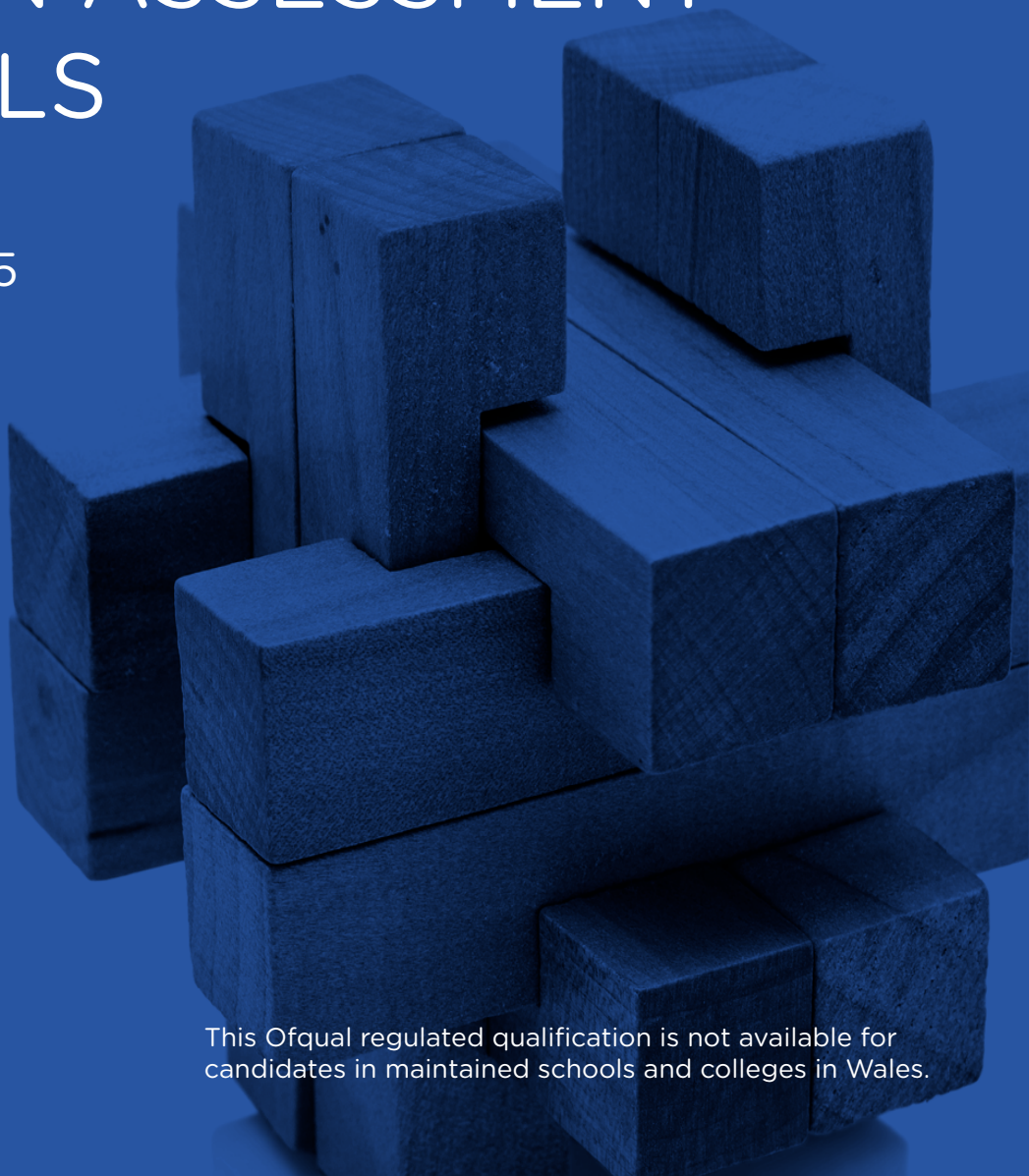
WJEC Eduqas GCE A LEVEL in

PSYCHOLOGY

ACCREDITED BY OFQUAL

SPECIMEN ASSESSMENT MATERIALS

Teaching from 2015



wjec
cbac

This Ofqual regulated qualification is not available for candidates in maintained schools and colleges in Wales.

Contents

A LEVEL PSYCHOLOGY

COMPONENT 1

Psychology: Past to Present

SPECIMEN PAPER

2 hours 15 minutes

ADDITIONAL MATERIALS

In addition to this examination paper, you will need a 12 page answer book.

INSTRUCTIONS TO CANDIDATES

Answer **all** the questions.

Write your answers in the separate answer book provided.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question.

You are reminded of the need for good English and orderly, clear presentation in your answers.

No certificate will be awarded to a candidate detected in any unfair practice during the examination.

Answer **all** *questions.*

1. Describe the 'influence of childhood experiences' and **one** other assumption of the psychodynamic approach in explaining human behaviour. [6]

2. Describe the methodology and procedures of Loftus and Palmer's (1974) research *Reconstruction of automobile destruction: an example of the interaction between language and memory*. [12]

3. Analyse and evaluate Raine, Buchsbaum and LaCasse's (1997) research *Brain abnormalities in murderers indicated by positron emission tomography* in relation to the ethical issues and social implications. [16]

4. Demonstrate how a cognitive assumption has been used in either cognitive behavioural therapy (CBT) **OR** rational emotive behaviour therapy (REBT). [10]

5. *"By asking who is happy, and why, we can help people rethink their priorities and better understand how to build a world that enhances human well-being*"
(Myers & Diener, 1995)

   With reference to the above quote and using your own knowledge, discuss how the positive approach could be applied to human behaviour in practical contexts. [12]

6. (a) Apply your knowledge of the assumptions of the biological and behaviourist approaches to explain aggressive behaviour in a teenage boy. [8]

   (b) Compare and contrast the biological approach and the behaviourist approach. [12]

7. 'Mothers should stay at home for the first two years of their babies' lives'. Discuss to what extent you agree with this statement. You should demonstrate your knowledge and understanding of psychological ideas and processes in your response. [24]

End of paper

A LEVEL PSYCHOLOGY

COMPONENT 2

Psychology: Investigating Behaviour

SPECIMEN PAPER

2 hours 15 minutes

ADDITIONAL MATERIALS

In addition to this examination paper, you will need a 12 page answer book

INSTRUCTIONS TO CANDIDATES

Answer **all** the questions.

Write your answers in the spaces provided in this booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the need for good English and orderly, clear presentation in your answers.

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SECTION A – Principles of Research

Answer **all** *questions.*

1. Describe how you would calculate a mean score of a set of data. [2]

2. Analyse **two** weaknesses of conducting psychological research in the field. [6]

3. Assess whether an independent groups design or a repeated measures design is best for ensuring valid results in an experiment. [6]

4. Describe the main features of a case study. [4]

5. With reference to Milgram's (1963) research *Behavioural* Study *of Obedience,* discuss the use of the experimental method in investigating social behaviour. [12]

SECTION B – Personal Investigations

You should *answer* **all** *the questions* in this section with reference to the investigations carried out in your study of psychology.

INVESTIGATION ONE: Correlational research on the relationship between age and reaction times

6. (a) (i) State the alternative hypothesis for your correlational investigation. [3]

   (ii) Explain whether this alternative hypothesis for your correlational investigation was directional or non-directional. [2]

   (b) (i) Describe the sampling method that you used. [2]

   (ii) Explain why this sampling method was chosen. [3]

   (c) Suggest **two** ways your investigation could have been improved. [6]

(d) Another student carried out a correlational research on the relationship between age and reaction times. Their results are shown in the table below. With reference to their raw data only, explain how you could estimate the relationship between age and reaction times in this research (you do not need to plot a scatter diagram). [3]

Participant number	Age	Reaction time (seconds)
1	73	10
2	18	5
3	55	7
4	10	4
5	24	5

INVESTIGATION TWO: Observation of gender differences in food choices

7. With reference to details from your own investigation, describe how you ensured that the observation you carried out was ethical. [12]

SECTION C – Application of research methods to a novel scenario

Answer **all** *questions.*

8. A psychologist was asked to investigate the effects of noise on the stress levels of pupils at a local school. She measured the cortisol levels in the saliva of ten children after they had been carrying out a task for an hour. Cortisol is released when an individual interprets a situation as being stressful. The task was familiar to and identical for, all the pupils but there were two conditions of noise levels (low level and high level). On day one the pupils completed the task with music played quietly whereas on day two the same music was played loudly as they carried out the same task.

   The results are shown in *Table 1* below:

   Table 1: Summary table of raw data, mean and standard deviation

Participant (f=female, m=male)	Level of cortisol in saliva samples after one hour on the task (nmol/L)	
	Low levels of noise	High levels of noise
1f	20	13
2f	6	40
3f	1	12
4f	9	3
5f	0	15
6f	13	7
1m	4	22
2m	3	19
3m	2	11
4m	2	8
Mean	6	15
Standard Deviation	6.32	10.14

(a) (i) Calculate the median scores for the 'low levels of noise' condition and the 'high levels of noise' condition. [2]

(ii) Calculate the modal scores for the 'low levels of noise' condition and the 'high levels of noise' condition. [2]

(iii) Discuss which measure of central tendency is the most appropriate for this set of data. [6]

(b) Identify the measure of dispersion used and describe **one** advantage of using this measure of dispersion. [3]

(c) Identify and justify which inferential statistical test should be used to analyse this data. [4]

The psychologist proposed an experimental hypothesis: 'Levels of cortisol will be lower after completing a task with low levels of noise than when completing a task with high levels of noise'. The results are shown in *Table 2* below.

Table 2: Extract of critical values of T ($p \leq 0.05$)

N	One-tailed test	Two-tailed test
8	5	3
9	8	5
10	11	8
11	13	10
12	17	13

(d) From *Table 2*, identify an appropriate critical (table) value for this research and state why you chose this critical value. [2]

(e) The value of T was observed (calculated) to be 20. Justify whether the psychologist should accept or reject her experimental hypothesis. [3]

(f) Explain what is meant by $p \leq 0.05$ in this research. [2]

9. It has been suggested that petting an animal can help improve mood and health of patients recovering in hospital. Suggest how a psychologist could investigate this **using an experiment**. [15]

In your answer you should include:

- the operationalisation of the independent variable (IV) and dependent variable (DV)
- details of the experimental design and sample (including sampling)
- identification of **two** possible confounding variables and how you would deal with these.

End of paper

A LEVEL PSYCHOLOGY

COMPONENT 3

Psychology: Implications in the Real World

SPECIMEN PAPER

2 hours 15 minutes

ADDITIONAL MATERIALS

In addition to this examination paper, you will need a 12 page answer book.

INSTRUCTIONS TO CANDIDATES

Answer **three** questions in Section A and **one** question in Section B.

Write your answers in the separate answer book provided.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded that Section B of this paper is synoptic and so will test understanding of the connections between the different elements of the subject.

You are reminded of the need for good English and orderly, clear presentation in your answers.

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SECTION A – Applications

Answer **three** *questions.*

1. **Addictive behaviours**

(a) A young mother has recently started spending more money than she can afford on expensive clothes for her child. Every day she goes to the shops and buys many items. However, when she goes home she does not use them to dress her child but rather keeps them in a special wardrobe to keep them clean.

Explain how a psychologist could modify this shopping addiction in the young mother. [15]

(b) Compare and contrast the strengths and weaknesses of **two** explanations of addictive behaviours. [10]

2. **Autistic spectrum behaviours**

(a) Describe **two** biological explanations of autistic spectrum behaviours. [10]

(b) A therapist uses Picture Exchange Communication System (PECS) to help modify a child's autistic behaviours. However, the parents would also like the therapist to consider using Relationship Development Intervention. With reference to the parents' wishes, compare the strengths and weakness of **both** these methods of modifying the child's behaviour. [15]

3. **Bullying behaviours**

(a) Describe **one** method of modifying bullying behaviour. [10]

(b) 'Bullies are born not made'. Assess how far you agree with this statement. [15]

4. **Criminal behaviours**

(a) Describe **one** biological and **one** social psychological explanation for criminal behaviour. [10]

(b) Restorative justice has been criticised for being an easy option for the criminal. Applying your knowledge and understanding of restorative justice **and** at least one other method of modifying criminal behaviour, discuss how far you agree with this criticism. [15]

Turn over for questions 5 and 6

5. **Schizophrenia**

(a) Describe the characteristics of behaviour that lead to a diagnosis of schizophrenia. [10]

(b) Schizophrenia has significant economic consequences; the costs impact on many different parts of society, especially on individuals with schizophrenia and their families. Overall, schizophrenia is estimated to cost English society £11 billion per year. With reference to this fact, apply your knowledge and understanding to discuss the ethical and social implications of two different methods of modifying schizophrenia. [15]

6. **Stress**

(a) A middle-aged man who recently lost his job has recently started to experience typical symptoms of stress such as increased heart rate, sweaty palms and feelings of anxiety.

Outline how **one** method of modifying behaviour can be applied to any of these symptoms of stress. [5]

(b) Using your own knowledge, analyse and evaluate **two** explanations for stress. [20]

SECTION B – Controversies

Answer **one** *question.*

7. 'Are unethical studies in psychology acceptable if you consider their greater good to society?' Using your knowledge of psychology, justify your answer. [25]

OR

8. 'It is crucial for psychology to be scientific.' Discuss the validity of this statement with reference to psychological ideas and procedures. [25]

End of paper

Mark Schemes

A LEVEL

PSYCHOLOGY

COMPONENT 1
PSYCHOLOGY: Past to Present

GENERAL INSTRUCTIONS ON MARKING

- Every candidate's script must be treated in the same way throughout the whole marking session.

- The mark scheme should be applied positively. It is not required for an answer to be 'perfect' to gain full marks. Candidates should be rewarded for what they have included and not penalised for leaving things out. The process is different from marking as a teacher (i.e. it is about rewarding rather than guiding).

- Original thoughts and unusual exemplars can be credited; however, do check for accuracy of unusual answers.

- The full range of marks should be used. If the answer shows the features of the top band with no significant issues, full marks can be given. Similarly, an answer which does not answer the question should be given zero marks.

- The subjective nature of psychology inevitably requires examiners to use their professional judgment. Care should be taken however, not to decide on value of the answer due to personal opinions. If the material is used appropriately to answer the question then credit should be given in accordance with the skills demonstrated and indicated in the various bands.

- Crossed out work should be marked unless the candidate has made another attempt at answering the question.

- Any rubric errors should work to the candidate's advantage i.e. mark all answers completed and credit the highest scoring valid combination.

- If at any time during the marking the examiner has a concern regarding content of an answer, the Team Leader or Principal Examiner should be consulted.

Indicative content

It is essential to acknowledge the subjective nature of psychology and therefore there are not always specific answers that can be included in the mark scheme. The indicative content is simply advice on each specific question, outlining some possibilities; it is not prescriptive or hierarchical and candidates are not expected to mention all the materials mentioned. They are also able to refer to other studies, theories, issues etc. which would be credited based on skills shown in accordance with the guidance in the grids.

Which mark within a band?

Having decided on the overall band that is appropriate for the response given, the examiner should start with the top mark in the band. If there are aspects of the answer which may not be fully representative of the band, the mark given may be lower in the band.

Quality of written communication

This issue should have a bearing only if the quality of written communication is inconsistent with the descriptor for the band in which the answer falls decided on the psychological content. In this situation, examiners may decide not to award the higher mark within the band. Any illegible text should be referred to the Subject Officer.

Annotation to be used

✓ – correct material

✓+ – correct material developed

x – incorrect material

? – unclear

EV – evaluation

GEV – generic evaluation

EX – example used is appropriate

NREL – does not answer question (i.e. not relevant)

1. Describe the 'influence of childhood experiences' and **one** other assumption of the psychodynamic approach in explaining human behaviour. [6]

This question is focused on demonstrating knowledge and understanding of scientific ideas.	
Credit **could** be given for: • Influence of childhood experiences: role of father and mother, attachments forming the basis for future relationships • Tripartite mind: psyche (personality) separated into; the id - consists of biological aspects of personality (Eros and Thanatos), superego - incorporates the values and moral of society, ego - mediates between the unrealistic id and the external real world • Ego defence mechanisms: behaviours and attitudes adopted to preserve the self (ego) e.g. repression, suppression, denial, avoidance • Unconscious mind: the iceberg analogy - conscious, subconscious, unconscious • Any other appropriate assumption clearly related to the psychodynamic approach	
Marks (per assumption)	**AO1**
3	• Description is well detailed and clearly linked to human behaviour • Response is accurate throughout • Effective use of appropriate terminology
2	• Description is reasonably detailed and linked to human behaviour • There may be minor inaccuracies which do not distract from overall meaning • Good use of appropriate terminology
1	• Description is superficial or limited • Link to human behaviour may not be clear • Little use of terminology
0	• Inappropriate answer given • No response attempted

2. Describe the methodology and procedures of Loftus and Palmer's (1974) research *Reconstruction of automobile destruction: an example of the interaction between language and memory*. [12]

This question is focused on demonstrating knowledge and understanding of scientific procedures.

Credit **could** be given for:

- Key elements – two experiments as part of the whole research; use of students as participants; video shown of car crash; wording of the critical questions with the levels of independent variable
- Use of questionnaires, instructions given
- Any other appropriate description of the methodology and procedures

Extended bullet points rather than full paragraphs can be credited in accordance with the band descriptors.

NB Only procedures referred to in the original article can be credited.

Marks	AO1
10 - 12	• Description includes all the key elements and is well detailed • Details are accurate throughout • There is depth and range to material included • Effective use of terminology throughout • The structure is logical
7 - 9	• Description includes most key elements and is reasonably detailed • There may be minor inaccuracies which do not distract from overall meaning • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical
4 - 6	• Description may be basic in detail or lacking some key elements • There may be inaccuracies throughout • There is depth or range only in material used • There is some use of appropriate terminology • There is a reasonable structure
1 - 3	• Description is superficial or is lacking key elements • Little use of appropriate terminology • Answer lacks structure
0	• Inappropriate answer given • No response attempted

3. Analyse and evaluate Raine, Buchsbaum and LaCasse's (1997) research *Brain abnormalities in murderers indicated by positron emission tomography* in relation to the ethical issues and social implications. [16]

This question is mainly focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to making judgements and reaching conclusions.

Credit **could** be given for:

- Impact of labelling the individual as inferior due to evidence of brain scans
- Social implications of findings being wrong due to some element of subjectivity in reading the scans
- Interpretation of the scientific nature of the research (e.g. increases validity and reliability and therefore more confidence in the accuracy of the findings which supports any applications as being ethical)
- Irrelevance of the research due to society needing to punish murderers regardless of the cause for doing so
- Suggestions of refinement to the procedures to improve ethical status of the work
- Conclusions on the overall worth of the research bearing in mind the ethical and social implications

- Any other appropriate ethical issue or implication evaluated

Marks	AO3
13 - 16	• A sophisticated and articulate evaluation of the research in relation to both ethical issues and social implications • Well developed and balanced arguments made • There is depth and range of material • Exemplars used are well-chosen and effective in support and developing points made • Excellent structure • An appropriate conclusion is reached based on the evidence presented
10 - 12	• A thorough evaluation of the research in relation to both ethical issues and social implications • Developed and balanced arguments made • There is depth and range of material (not necessarily in equal measure) • Exemplars used are well-chosen to support the points made • Good structure • A reasonable conclusion is reached based on the evidence presented
7 - 9	• A reasonable evaluation of the research in relation to ethical issues and / or social implications • Arguments are reasonable but may be one-sided • There is depth or range of material • Appropriate exemplars are used • The structure is coherent • A basic conclusion is made

3. continued

4 - 6	• Basic evaluation of the research in relation to ethical issues and social implications OR • Reasonable evaluation of the research in relation to ethical issue or implication only • Arguments made are basic but creditworthy • Exemplars not always made relevant • Structure is clear • Any conclusion may be contradictory with flow of the answer
1 - 3	• Identification of ethical issues and social implications only • Little credit-worthy evidence or arguments given • Exemplars are unlikely to have been used • Response is poorly structured • There is no conclusion
0	• Inappropriate answer given • No response attempted

4. Demonstrate how a cognitive assumption has been used in either cognitive behavioural therapy (CBT) **OR** rational emotive behaviour therapy (REBT). [10]

<table>
<tr><td colspan="2">This question is focused mainly on demonstrating knowledge and understanding of scientific procedures.</td></tr>
<tr><td colspan="2">Credit could be given for:</td></tr>
<tr><td>Cognitive behavioural therapy (CBT)

• The assumption of the cognitive triad
• Exploration of the relationship between thoughts, emotions and behaviours
• The aims and procedures of the identified therapy (e.g. Meichenbaum’s Stress Inoculation Training includes conceptualisation, skills acquisition and application; Beck’s Cognitive therapy includes use of dysfunctional thought diary and therapy during therapy)

• Any other appropriate assumptions</td><td>Rational emotive behaviour therapy (REBT)

• The assumption of changing thoughts to change behaviour to change emotions
• Exploration of the relationship between thoughts, emotions and behaviours, musturbatory thinking
• The aims and procedures; the ABC model; addition of D and E

• Any other appropriate assumptions</td></tr>
<tr><td colspan="2">NB The assumptions of the behaviourist approach will not be credited here.</td></tr>
</table>

Marks	AO1
9 - 10	• The application of the assumption to the therapy is evident and thorough • Depth and range of material • Details are accurate throughout • Effective use of terminology throughout • The structure is logical throughout
6 - 8	• The application of the assumption to the therapy is evident • Depth and range of material, but not in equal measure • There may be minor inaccuracies • Good use of terminology • The structure is mostly logical
3 - 5	• The application of the assumption to the therapy is superficial • Depth or range only in material used • There may be inaccuracies throughout • Some use of appropriate terminology • The structure is reasonable
1 - 2	• The application of the assumption to the therapy is not evident • Very basic explanation of material • Little use of appropriate terminology • Answer lacks structure OR • Only assumption outlined
0	• Inappropriate answer given • No response attempted

5. *"By asking who is happy, and why, we can help people rethink their priorities and better understand how to build a world that enhances human well-being*"
(Myers & Diener, 1995)

With reference to the above quote and using your own knowledge, discuss how the positive approach could be applied to human behaviour in practical contexts. [12]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a practical context when handling data.

Credit **could** be given for:

- Application of theories and principles to improve longevity (e.g. identification of the 'risk' factors of happiness can be used as basis for interventions)
- Applying practical processes e.g. parenting skills on the psychological needs of children; whole school targeting of emotional intelligence awareness
- Setting goals in the workplace (e.g. to ensure fulfilling the potential of individuals and teams; use of qualitative and quantitative measures)
- Practical context of therapeutic settings (e.g.to deal with individuals suffering with anxiety and depression)
- Evidence from research (qualitative and quantitative changes)

- Any other appropriate application

Marks	AO2
10 - 12	• An articulate and thorough discussion of the possible practical applications of the positive approach • There are clear references to the quote • Exemplars used are well-chosen • Depth and range of material • The structure is logical throughout
7 - 9	• A reasonable discussion of the possible practical applications of the positive approach • There are references to the quote • Appropriate exemplars are used • Depth and range of material, but not in equal measure • The structure is mostly logical
4 - 6	• A basic discussion of the possible practical applications of the positive approach • References to the quote are limited and / or superficial • Exemplars not always made relevant • Depth or range only in material used • The structure is reasonable
1 - 3	• A superficial discussion of the possible practical applications of the positive approach • There is no reference to the quote • Exemplars identified but not made relevant • Answer lacks structure
0	• Inappropriate answer given • No response attempted

6. (a) Apply your knowledge of the assumptions of the biological and behaviourist approaches to explain aggressive behaviour in a teenage boy. [8]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a theoretical context when handling data.

Credit **could** be given for the application of the following assumptions:

Biological
- Evolutionary theories: aggression a strategy to compete with same-sex peer rivals for resources, status, and mating opportunities
- Evidence from research on localisation of brain function: more activity in the amygdala and less activity in the frontal cortex, which is involved in impulse control, than other teenagers
- Hormones: increase in testosterone levels at this age

Behaviourist
- Behaviour learned through conditioning
- Social learning theory (Bandura)
- Differential Association theory (Sutherland)

- Any other appropriate qualitative and / or quantitative evidence

NB As this is an application question there is no need for finer details to gain top band marks.

Marks	AO2
7 - 8	• Application of the assumptions of both approaches is thorough to explain the boy's behaviour • Exemplars used are well chosen • Structure is logical throughout • Excellent use of terminology
5 - 6	• Application of the assumptions of both approaches is reasonable to explain the boy's behaviour • Appropriate exemplars are used • Structure is mostly logical • Good use of terminology
3 - 4	• Application of the assumptions of both approaches is basic to explain the boy's behaviour OR only one approach is thoroughly applied to explain the boy's behaviour • Exemplars are not always made relevant • Structure is reasonable • Basic use of terminology
1 - 2	• Application of the assumptions of both approaches is superficial to explain the boy's behaviour OR only one approach is applied in a basic manner to explain the boy's behaviour • Lacks structure • No use of appropriate terminology
0	• Inappropriate answer given • No response attempted

(b) Compare and contrast the biological approach and the behaviourist approach. [12]

This question is mainly focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to making judgements and reaching conclusions.

Credit **could** be given for:

- The scientific nature of both approaches (e.g. they are similarly scientific in that they both consider observable behaviours which are therefore arguable more objective)
- Validity of methodologies used by both approaches
- Implications of deterministic views held by both approaches (e.g. they are both similar in that they reject notions of free will, however they are different as biological can be argued as hard determinism whilst behaviourist is soft determinism)
- Usefulness (e.g. success of therapeutic applications)
- Implications of the reductionist views held by both approaches
- Judgement on the overall comparison of both approaches
- Suggestions on possible refinement to increase validity of the approaches (e.g. less reliance on animals by behaviourist approach)

- Any other appropriate analysis

NB The above issues could be noted as similarities and / or differences by a candidate.

Marks	AO3
10 - 12	• A thorough analysis is made of both the similarities and differences of the biological and behaviourist approaches with reference to refinement • There is depth and range to the material • Structure is logical throughout • An appropriate conclusion is reached based on the analysis and interpretation of the evidence presented
7 - 9	• A good analysis is made of both the similarities and differences of the biological and behaviourist approaches (not necessarily in equal measure) • There is depth and range to the material (not necessarily in equal measure) • Structure is mostly logical • A reasonable conclusion is reached based on the analysis and interpretation of the evidence presented
4 - 6	• Basic analysis is made of the similarities and differences of the biological and behaviourist approaches OR • A good analysis is made of the similarities or differences of the biological and behaviourist approaches • There is depth or range to the material • Structure is reasonable • A basic conclusion is reached based on the analysis and interpretation of the evidence presented
1 - 3	• A superficial analysis is made of the similarities and differences of the biological and behaviourist approaches • Answer lacks structure • No conclusion
0	• Inappropriate answer given • No response attempted

7. ‘Mothers should stay at home for the first two years of their babies’ lives’. Discuss to what extent you agree with this statement. You should demonstrate your knowledge and understanding of psychological ideas and processes in your response. [24]

This question is focused on demonstrating knowledge and understanding of scientific ideas, processes, techniques and procedures.

This debate is linked to the psychodynamic approach. However, the materials used in the responses may be taken from any approach and perspective within psychology. Some reference could also be made to economic, social and political evidence (as long as it is explicitly linked to the psychological issue).

Credit **could** be given for:

- ‘Mothers At Home Matter’ conference address by Dr Aric Sigman
- Evidence from the biosciences (e.g. Belsky)
- Oliver James’s ideas on types of mothers
- John Bowlby’s Attachment Theory and later support to various attachment patterns (e.g. work of Mary Ainsworth and Mary Main)
- The importance of early emotional lives (e.g. Sue Gerhardt ‘Why love matters’)
- Alternative attachment figures (e.g. Michael Rutter)
- Comparative psychology (e.g. Harlow’s findings from Rhesus monkeys)

- Any other appropriate material

Marks	AO1
10 - 12	• Exemplars are well chosen • Details are accurate throughout • There is depth and range to material included • Effective use of terminology throughout • The structure is logical
7 - 9	• Exemplars are appropriate • There may be minor inaccuracies which do not distract from overall meaning • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical
4 - 6	• Exemplars may not always be appropriate • There may be inaccuracies throughout • There is depth or range only in material used • There is some use of appropriate terminology • There is a reasonable structure
1 - 3	• Exemplars not always made relevant • Little use of appropriate terminology • Answer lacks structure
0	• Inappropriate answer given • No response attempted

7. continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to making judgements and reaching conclusions and to develop and refine practical design and procedures.

Credit **could** be given for:

- Interpretation of the appropriateness of the historical evidence applied to modern society due to changes in social norms
- Analysis of the influence of the evidence on political decisions (e.g. length of maternity and paternity leave)
- Ethical implications for focusing on mothers only (e.g. social roles and status of women)
- Suggestions on development and refinement of child minding practices to improve child welfare
- Evaluation of the research (must be contextualised to the statement)
- Comparison with research on animals as parents
- Conclusion to the debate (e.g. overall disagreement or agreement with the statement)

- Any other appropriate discussion

Marks	AO3
10 - 12	• A thorough discussion is made of both sides of the debate • Evaluative comments are evidently relevant to the context • Structure is logical throughout • An appropriate conclusion is reached based on analysing and interpreting the evidence presented
7 - 9	• A good discussion is made of both sides of the debate • Evaluative comments show some relevance to the context • Structure is mostly logical • A reasonable conclusion is reached based on analysing and interpreting the evidence presented
4 - 6	• A reasonable discussion of both sides of the debate OR a good analysis is made of only one side of the debate • Evaluative comments are generic and not appropriately contextualised • Structure is reasonable • A basic conclusion is reached
1 - 3	• A superficial discussion is made of the debate • Evaluative comments are superficial • Answer lacks structure • No conclusion
0	• Inappropriate answer given • No response attempted

A LEVEL

PSYCHOLOGY

COMPONENT 2
PSYCHOLOGY:
Investigating Behaviour

GENERAL INSTRUCTIONS ON MARKING

- Every candidate's script must be treated in the same way throughout the whole marking session.

- The mark scheme should be applied positively. It is not required for an answer to be 'perfect' to gain full marks. Candidates should be rewarded for what they have included and not penalised for leaving things out. The process is different from marking as a teacher (i.e. it is about rewarding rather than guiding).

- Original thoughts and unusual exemplars can be credited; however, do check for accuracy of unusual answers.

- The full range of marks should be used. If the answer shows the features of the top band with no significant issues, full marks can be given. Similarly, an answer which does not answer the question should be given zero marks.

- The subjective nature of psychology inevitably requires examiners to use their professional judgment. Care should be taken however, not to decide on value of the answer due to personal opinions. If the material is used appropriately to answer the question then credit should be given in accordance with the skills demonstrated and indicated in the various bands.

- Crossed out work should be marked unless the candidate has made another attempt at answering the question.

- Any rubric errors should work to the candidate's advantage i.e. mark all answers completed and credit the highest scoring valid combination.

- If at any time during the marking the examiner has a concern regarding content of an answer, the Team Leader or Principal Examiner should be consulted.

Indicative content

It is essential to acknowledge the subjective nature of psychology and therefore there are not always specific answers that can be included in the mark scheme. The indicative content is simply advice on each specific question, outlining some possibilities; it is not prescriptive or hierarchical and candidates are not expected to mention all the materials mentioned. They are also able to refer to other studies, theories, issues etc. which would be credited based on skills shown in accordance with the guidance in the grids.

Which mark within a band?

Having decided on the overall band that is appropriate for the response given, the examiner should start with the top mark in the band. If there are aspects of the answer which may not be fully representative of the band, the mark given may be lower in the band.

Quality of written communication

This issue should have a bearing only if the quality of written communication is inconsistent with the descriptor for the band in which the answer falls decided on the psychological content. In this situation, examiners may decide not to award the higher mark within the band. Any illegible text should be referred to the Subject Officer.

Annotation to be used

✓ – correct material

✓+ – correct material developed

x – incorrect material

? – unclear

EV – evaluation

GEV – generic evaluation

EX – example used is appropriate

NREL – does not answer question (i.e. not relevant)

SECTION A - Principles of Research

1. Describe how you would calculate a mean score of a set of data. [2]

This question is focused on demonstrating knowledge of scientific ideas.	
Credit **could** be given for: • Totalling the sum of the data and dividing by number of items • An example of data and the mean calculated • Formula $\overline{x} = \frac{\Sigma x}{n}$ • Any other appropriate description	
Marks	**AO1**
2	• Complete description given which would allow the mean to be calculated correctly
1	• Formula given only
0	• Key element missing which would not allow mean to be calculated correctly • Inappropriate answer given • No response attempted

2. Analyse **two** weaknesses of conducting psychological research in the field. [6]

This question is mainly focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to making judgements and reaching conclusions.	
Credit **could** be given for: • Judgement on the control of variables • Difficult to ensure reliability if needing to repeat the research • Validity of the work may be compromised by extraneous variables • Analysis of ethical issues (e.g. lack of informed consent by unaware participants) • Any other appropriate weakness	
Marks	**AO3**
5 - 6	• Two weaknesses of research in the field are clearly identified • Thorough analysis of both weaknesses
3 - 4	• Two weaknesses of research in the field are identified and reasonably analysed OR • Two weaknesses of research in the field are identified, however only one is thoroughly analysed
1 - 2	• Two weaknesses of research in the field are identified, but not analysed OR • One weakness of research in the field is identified and thoroughly analysed
0	• Inappropriate answer given • No response attempted

3. Assess whether an independent groups design or a repeated measures design is best for ensuring valid results in an experiment. [6]

This question is focused on interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements, reach conclusions, develop and refine practical design.

Credit **could** be given for:

- Independent groups design:
  - Strength e.g. reduced rehearsal allows genuine response and therefore higher validity
  - Weakness e.g. individual differences can reduce reliability therefore reducing validity
- Repeated measures design:
  - Strength e.g. consistency of the characteristics between the two conditions of the experiment therefore increasing validity in strength of the IV
  - Weakness e.g. knowledge of the experiment in second condition can reduce validity
- Possible conclusion: both have equal validity and choice of design is dependent on the nature of the experiment

- Any other appropriate assessment

Marks	AO3
5 - 6	• The interpretation and evaluation of both designs is thorough and coherent • Logical interpretations are presented • There is an effective judgement shown
3 - 4	• There is a sound interpretation and evaluation of both designs which may be flawed in parts • Interpretation may be simple but makes a valid judgement
1 - 2	• One-sided interpretation and evaluation of both designs OR • The assessment of one design is thorough and coherent • There is no overall judgement
0	• Inappropriate assessment made • No response attempted

4. Describe the main features of a case study. [4]

This question is focused on demonstrating knowledge of scientific ideas.	
Credit **could** be given for: • Longitudinal study • In-depth investigation of a phenomenon • Descriptive, exploratory or explanatory analysis of a person, group or event • Holistic study by one or more methodologies • Empirical inquiry that investigates a phenomenon within its real-life contex • Any other appropriate feature **NB** There is no need for an example but if used to highlight a feature, credit can be given.	
Marks	**AO1**
3 - 4	• Thorough description of a case study given • Good use of appropriate terminology • There is depth to the material used
1 - 2	• Basic description of a case study OR • No more than two features identified • Some terminology is evident • May be list like
0	• Example of a case study given but with no reference to the features • Inappropriate answer given • No response attempted

5. With reference to Milgram's (1963) research *Behavioural study of Obedience* discuss the use of the experimental method in investigating social behaviour. [12]

This question is focused on demonstrating knowledge and understanding of scientific processes, techniques and procedures.

Credit **could** be given for:

- Use of controlled environment (in a laboratory)
- Scripted responses by learner to ensure reliability
- Strict sampling frame to reduce individual differences (i.e. men 20 – 50 years old)
- Use of prompts (e.g. 'you have no other choice, you *must* go on)

- Any other appropriate evidence

NB Credit only given to details from the original study.

Marks	AO1
5 - 6	• Accurate and detailed examples chosen from Milgram's research • There is range and depth of evidence • Excellent use of appropriate terminology
3 - 4	• There is range or depth of evidence from Milgram's research • There may be some inaccuracies • Good use of appropriate terminology
1 - 2	• Limited evidence given from Milgram's research • Inaccuracies throughout • Little use of terminology
0	• Inappropriate material used • No attempt made to give evidence

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence including in relation to issues to develop and refine practical procedures.

Credit **could** be given for:

- Impact of tight control on the behaviour of the participants (e.g. demand characteristics) thereby reducing the ecological validity
- Internal validity is improved by being able to reduce confounding variables thereby ensuring that the data gained can be applied in real life settings
- Interpretation of the ethics of purposefully creating stressful situations

- Any other appropriate discussion

Marks	AO3
5 - 6	• Thorough and articulate discussion • There is depth and range to the issues raised • The argument is balanced • An appropriate conclusion is made
3 - 4	• A good discussion • There is depth and range to the issues raised (not necessarily equal) • Argument may be one-sided • A conclusion is made
1 - 2	• Basic and superficial discussion • There is depth or range only to the issues raised • There is no conclusion
0	• Inappropriate discussion • No attempt made to discuss

SECTION B – Personal Investigations

You should *answer* **all** *the questions* in this section with reference to the investigations carried out in your study of psychology.

INVESTIGATION ONE: Correlational research on the relationship between age and reaction times

6. (a)(i) State the alternative hypothesis for your correlational investigation. [3]

This question is focused on demonstrating knowledge of scientific ideas.	
Exemplar hypotheses: • As age (years) increases in the participant, there will be a reduction in their response times (seconds) in a recognition task • There will be a relationship between age and reaction times **NB** We cannot know if candidates have carried out the investigation – the marks given must be based on the response to the questions only and allocated in accordance with the criteria indicated in the marking bands below.	
Marks	**AO1**
3	• Full alternative hypothesis (which is appropriate for this investigation) given with both variables clearly operationalised
2	• Full alternative hypothesis (which is appropriate for this investigation) given with only one variable clearly operationalised
1	• Basic alternative hypothesis (which is appropriate for this investigation) given but neither variable is clearly operationalised
0	• Experimental or null hypothesis given • Inappropriate answer given • No response attempted

(ii) Explain whether this alternative hypothesis for your correlational investigation was directional or non-directional. [2]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.	
Exemplar explanation: As there is a clearly identified direction in which the relationship will work between the two co-variables (age in years and response times in seconds) i.e. the use of the word 'reduction' this must be a directional hypothesis.	
Marks	**AO2**
2	• Full explanation of direction of alternative hypothesis used in their correlational investigation
1	• Statement of direction of alternative hypothesis used in their correlational investigation
0	• Inappropriate answer given • No response attempted

(b) (i) Describe the sampling method that you used. [2]

This question is focused on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
Credit **could** be given for: • Opportunity sampling – using those available in a named location (that is appropriate to hypothesis given above) • Random sampling – placing the names of all those able to participate in a randomiser computer programme to generate the required number • Stratified sampling – ensuring that there is a representation of all ages in proportion to percentages in the population • Any other appropriate sampling method	
Marks	**AO1**
2	• Detailed description of sampling method • Contextualised to specific investigation
1	• Sampling method described generically • Description may be muddled
0	• Inappropriate answer given • No response attempted

(ii) Explain why this sampling method was chosen. [3]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.
This response needs to use knowledge and understanding of the strengths of their sampling method or the weakness of other sampling methods to explain why their choice was most appropriate for their practical personal investigation. Exemplar answer: Due to the investigation considering effect of age on reaction times I thought it best to ensure a representation of every age group from the population. I considered using self-selecting sampling by placing adverts in different locations (e.g. old people's homes, schools, workplaces etc.) but I could not be sure to receive an equal response from each. I decided it was necessary to use a stratified sampling method and although this was time consuming it ensured that the results I achieved were valid in the context of my hypothesis.

Marks	AO2
3	• Thorough explanation given in relation to a strength of method used and / or weakness of other methods • There is a logical application of the sampling method used for the purpose of their investigation
2	• Reasonable explanation given in relation to the strength of method used and / or weakness of other methods • Lacks some application of the sampling method used for the purpose of their investigation
1	• Basic explanation given in relation to a strength of method used or a weakness of other methods only • No application to the purpose of their investigation (i.e. a generic reason)
0	• Inappropriate answer given • No response attempted

(c) Suggest **two** ways your investigation could have been improved. [6]

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to developing and refining practical design and procedures.

Credit **could** be given for:

- Changes to sampling method (e.g. to use a quicker and less complicated method)
- Improving the ethical aspects (e.g. ensuring ethical guidelines were more strictly adhered to)
- Changing the methodology for gathering the data to another with greater validity
- Rewording the instructions given to participants to reduce demand characteristics and improve reliability
- Collect different types of data (e.g. quantitative rather than qualitative)
- Carry out at a different location / time

- Any other appropriate suggestion

NB The two ways can be similar in nature as long as there is a distinct analysis of the effect of the change.

Marks	AO3
5 - 6	• Two ways of improving the investigation are suggested • Thorough analysis of why these suggestions would improve the investigation • The answer is logical • Good use of appropriate terminology
3 - 4	• Two ways of improving the investigation are suggested • Reasonable analysis of why these suggestions would improve the investigation OR • There may be only one way of improving the investigation identified, however analysis is detailed • The answer is mostly logical • Some appropriate terminology is used
1 - 2	• Two ways of improving the investigation are suggested but not analysed OR • Only one way of improving the investigation is identified and analysed in a basic way • Answer lacks logic • Little use of appropriate terminology
0	• Inappropriate answer given • No response attempted

(d) Another student carried out a correlational research on the relationship between age and reaction times. Their results are shown in the table below. With reference to their raw data only, explain how you could estimate the relationship between age and reaction times in this research (you do not need to plot a scatter diagram).

Participant number	Age	Reaction time (seconds)
1	73	10
2	18	5
3	55	7
4	10	4
5	24	5

[3]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.	
This response needs to demonstrate that an initial inference can be made from looking at the raw data. There is no need for reference to inferential statistics here and will not be credited. Exemplar answer: By placing the ages in a chronological order (from lowest to highest – 10, 18, 24, 55, 73) and then looking at the corresponding reaction times (4, 5, 5, 7, 10) an inference that should be made is that there is indeed a correlation between age and reaction times. As both figures mostly go in the same direction (with the exception of age 24 showing the same result as age 18) this is a positive correlation. **NB** Whilst there is no need for a scatter diagram, credit will not be taken away for its inclusion by the candidate.	
Marks	**AO2**
3	• Thorough explanation of the findings that could be made • There is a logical application of the raw data used
2	• Reasonable explanation of the findings that could be made • Lacks some application of the raw data
1	• Basic explanation given of the findings that could be made • No application of the raw data
0	• Inappropriate answer given • No response attempted

INVESTIGATION TWO: Observation of gender difference in food choices

7. With reference to details from your own investigation, describe how you ensured that the observation you carried out was ethical. [12]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in theoretical and practical contexts when handling mainly quantitative data.

Credit **could** be given for:

- Principles of ethics applied to own practical work: confidentiality – using participant numbers not names; consent – use of presumptive consent, observation of behaviour in a public environment (e.g. school canteen, local café)
- Consideration of working with vulnerable individuals (e.g. children) – gain consent from the educational establishment
- Adherence to BPS guidelines: invasion of privacy, avoiding embarrassment
- Awareness of cultural and social norms
- Decisions on appropriate data to collect (qualitative e.g. speech when choosing; quantitative e.g. number of food items chosen, amount of money spent)

- Any other appropriate description

NB We cannot know if candidates have carried out the investigation – the marks given must be based on the responses to the questions only and allocated in accordance with the criteria indicated in the marking bands below.

Marks	AO2
9 - 12	• Description of the ways of dealing with ethical issues used in their observation is well detailed • Application of the material used is well judged • There is depth and range to material used • Effective use of terminology
5 - 8	• Description of the ways of dealing with ethical issues used in their observation is detailed • Application of the material used is appropriate • There is depth and / or range only in material used • Good use of appropriate terminology
1 - 4	• Description of the ways of dealing with ethical issues used in their observation is superficial and / or generic • Application of the material is inappropriate or omitted • Answer does not move beyond description of ethics • There is little use of appropriate terminology
0	• Inappropriate answer given • No response attempted

SECTION C – Application of research methods to a novel scenario

8. A psychologist was asked to investigate the effects of noise on the stress levels of pupils at a local school. She measured the cortisol levels in the saliva of ten children after they had been carrying out a task for an hour. Cortisol is released when an individual interprets a situation as being stressful. The task was familiar to, and identical for, all the pupils but there were two conditions of noise levels (low level and high level). On day one the pupils completed the task with music played quietly whereas on day two the same music was played loudly as they carried out the same task.

The results are shown in *Table 1* below:

Table 1: Summary table of raw data, mean and standard deviation

Participant (f=female, m=male)	**Level of cortisol in saliva samples after one hour on the task (nmol/L)**	
	Low levels of noise	**High levels of noise**
1f	20	13
2f	6	40
3f	1	12
4f	9	3
5f	0	15
6f	13	7
1m	4	22
2m	3	19
3m	2	11
4m	2	8
Mean	6	15
Standard Deviation	6.32	10.14

(a) (i) Calculate the median scores for the 'low levels of noise' condition and the 'high levels of noise' condition. [2]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.	
Credit given for: Median scores: Low levels of noise - 3.5 High levels of noise - 12.5	
Marks	**AO2**
2	• Both median scores are fully accurate
1	• One median score is fully accurate OR • Both median scores given without decimal point (i.e. 3 and 12)
0	• Inappropriate answer given • No response attempted

(ii) Calculate the modal scores for the 'low levels of noise' condition and the 'high levels of noise' condition. [2]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.	
Credit given for: Modal scores: Low levels of noise - 2 High levels of noise - no mode (do not accept 0 or zero)	
Marks	**AO2**
2	• Both modal scores are fully accurate
1	• One modal score is fully accurate
0	• Inappropriate answer given • No response attempted

(iii) Discuss which measure of central tendency is the most appropriate for this set of data. [6]

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence in relation to making judgements and reaching conclusions.

Credit **could** be given for:

- Mean
  - Advantages: it is very sensitive and extracts most information from the scores; the data in this research is ratio which suits the mean; data is not likely to be skewed which favours the mean
  - Disadvantages: the sensitivity, especially if scores are widespread (as in the low levels of noise condition)
- Median
  - Advantages: not affected by extreme scores (as seen in the low levels of noise condition)
  - Disadvantages: not as sensitive as the mean as not all raw scores are used in its calculation
- Mode
  - Advantages: useful when the data is discrete (not an issue with this set of data)
  - Disadvantages: not useful with small amount of data (e.g. there is no mode for the high levels of noise condition)

- Conclusion: Most likely to favour the mean but an appropriate argument for the others can be credited

- Any other appropriate discussion and conclusion

Marks	AO3
5 - 6	• Thorough discussion focusing on the advantages and disadvantages of all three measures • Clear links made to this set of data • An appropriate and logical conclusion is reached based on the analysis and interpretation of the material • Excellent terminology is used
3 - 4	• Good discussion focusing on advantages and / or disadvantages of some measures • Some links made to this set of data • Conclusion reached may not be logical based on the analysis and interpretation of the material • Good use of terminology
1 - 2	• Only one measure is discussed but done thoroughly OR • Basic discussion made of some measures • No link to this set of data • No conclusion made • Little use of terminology
0	• Measure of central tendency named only • Inappropriate answer given • No response attempted

(b) Identify the measure of dispersion used and describe **one** advantage of using this measure of dispersion. [3]

This question is focused mainly on demonstrating knowledge of scientific processes, techniques and procedures.
Credit given for: Identification: • Standard Deviation Advantage could include: • Better representation of the data than the mean alone • Includes all data in its calculation • Gives weightage to the positive and negative deviation of the data from the mean • Any other appropriate advantage

Marks	AO1
3	• Correct identification plus a full description of an appropriate advantage
2	• Correct identification plus a basic description of an appropriate advantage OR • A full description of an appropriate advantage only
1	• Correct identification only
0	• Inappropriate answer given • No response attempted

(c) Identify and justify which inferential statistical test should be used to analyse this data [4]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.
Credit given for: • Identification (1 mark) Wilcoxon matched pairs signed ranks test (do not credit any other test with Wilcoxon name) • Justification: 1 mark for each (max. 3 marks) - Data at ordinal level - Testing for a difference - Scores obtained from the same participants (in repeated measures of matched pairs)

Marks	AO2
0	• Inappropriate answer given • No response attempted

The psychologist proposed an experimental hypothesis: 'Levels of cortisol will be lower after completing a task with low levels of noise than when completing a task with high levels of noise'. The results are shown in *Table 2* below.

Table 2: Extract of critical values of T ($p \leq 0.05$)

N	One-tailed test	Two-tailed test
8	5	3
9	8	5
10	11	8
11	13	10
12	17	13

(d) From *Table 2*, identify an appropriate critical (table) value for this research and state why you chose this critical value. [2]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.	
Credit given for: Critical value: 11 Justification: N=10, one tailed test	
Marks	**AO2**
2	• Critical value is identified with full justification
1	• Critical value is identified and partial justification
0	• Inappropriate answer given • No response attempted

(e) The value of T was observed (calculated) to be 20. Justify whether the psychologist should accept or reject her experimental hypothesis. [3]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.	
Credit **could** be given for: Exemplar answer: 'The researcher should reject her experimental hypothesis as the observed value (20) was more than the critical value (11) meaning that the result was not statistically significant at $p \leq 0.05$'	
Marks	**AO2**
3	• Rejection of experimental hypothesis identified with full justification
2	• Rejection of experimental hypothesis identified with partial justification
1	• Rejection of experimental hypothesis identified with no justification
0	• Inappropriate answer given • No response attempted

(f) Explain what is meant by $p \leq 0.05$ in this research. [2]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.	
Exemplar explanation: '$p \leq 0.05$ means there is a less than 5% chance that the results are due to stress levels being affected by the difference in noise levels.'	
Marks	**AO2**
2	• Explanation is appropriate and applied to the research
1	• Explanation is appropriate but not applied to the research
0	• Inappropriate answer given • No response attempted

9. It has been suggested that petting an animal can help improve mood and health of patients recovering in hospital. Suggest how a psychologist could investigate this **using an experiment**. In your answer you should include: [15]

- the operationalisation of the independent variable (IV) and dependent variable (DV)
- details of the experimental design and sample (including sampling)
- identification of **two** possible confounding variables and how you would deal with these.

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in theoretical and practical contexts when handling quantitative data.

Credit **could** be given for:
Key elements:
- Appropriately operationalised independent and dependent variables
- Appropriate identification and justification of experimental design used; full description of sample used
- Two confounding variables are identified with appropriate explanation of how these confounding variables would be dealt with
- Ethical principles
- Any other appropriate material

NB Questionnaires and observations can be used within an experiment and therefore creditable if made clear; however, any data collected must be quantitative in line with the experimental methodology.

Marks	AO2
13 - 15	• Suggestion includes all of the key elements and is thoroughly detailed • Material used is well applied to the scenario • Effective use of terminology • The structure is logical and coherent • It would be easy to carry out the investigation
9 - 12	• Suggestion includes the all the key elements and is reasonably detailed • Material used is reasonably applied to the scenario • Good use of terminology • The structure is logical • It would be easy to carry out the investigation
5 - 8	• Suggestion may be lacking a key element, however remaining discussion is reasonably detailed • Material used shows some application to the scenario • There is some use of appropriate terminology • There is a reasonable structure • Not always clear how to carry out the investigation
1 - 4	• Suggestion may be lacking more than one key detail and remaining discussion is basic • Material used is superficially applied to the scenario • Very little use of appropriate terminology • Answer lacks clarity and structure so carrying out the investigation would be difficult
0	• Inappropriate answer given (e.g. non-experimental method used) • No response attempted

A LEVEL

PSYCHOLOGY

COMPONENT 3
PSYCHOLOGY:
Implications in the Real World

GENERAL INSTRUCTIONS ON MARKING

- Every candidate's script must be treated in the same way throughout the whole marking session.

- The mark scheme should be applied positively. It is not required for an answer to be 'perfect' to gain full marks. Candidates should be rewarded for what they have included and not penalised for leaving things out. The process is different from marking as a teacher (i.e. it is about rewarding rather than guiding).

- Original thoughts and unusual exemplars can be credited; however, do check for accuracy of unusual answers.

- The full range of marks should be used. If the answer shows the features of the top band with no significant issues, full marks can be given. Similarly, an answer which does not answer the question should be given zero marks.

- The subjective nature of psychology inevitably requires examiners to use their professional judgment. Care should be taken however, not to decide on value of the answer due to personal opinions. If the material is used appropriately to answer the question then credit should be given in accordance with the skills demonstrated and indicated in the various bands.

- Crossed out work should be marked unless the candidate has made another attempt at answering the question.

- Any rubric errors should work to the candidate's advantage i.e. mark all answers completed and credit the highest scoring valid combination.

- If at any time during the marking the examiner has a concern regarding content of an answer, the Team Leader or Principal Examiner should be consulted.

Indicative content

It is essential to acknowledge the subjective nature of psychology and therefore there are not always specific answers that can be included in the mark scheme. The indicative content is simply advice on each specific question, outlining some possibilities; it is not prescriptive or hierarchical and candidates are not expected to mention all the materials mentioned. They are also able to refer to other studies, theories, issues etc. which would be credited based on skills shown in accordance with the guidance in the grids.

Which mark within a band?

Having decided on the overall band that is appropriate for the response given, the examiner should start with the top mark in the band. If there are aspects of the answer which may not be fully representative of the band, the mark given may be lower in the band.

Quality of written communication

This issue should have a bearing only if the quality of written communication is inconsistent with the descriptor for the band in which the answer falls decided on the psychological content. In this situation, examiners may decide not to award the higher mark within the band. Any illegible text should be referred to the Subject Officer.

Annotation to be used

✓ – correct material

✓+ – correct material developed

x – incorrect material

? – unclear

EV – evaluation

GEV – generic evaluation

EX – example used is appropriate

NREL – does not answer question (i.e. not relevant)

1. **Addictive behaviours**

(a) A young mother has recently started spending more money than she can afford on expensive clothes for her child. Every day she goes to the shops and buys many items. However, when she goes home she does not use them to dress her child but rather keeps them in a special wardrobe to keep them clean.

Explain how a psychologist could modify this shopping addiction in the young mother. [15]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
Credit **could** be given for: • Aversion therapy – conditioning the individual to make unpleasant connections with the shopping behaviour • Agonist and antagonist substitution - psychopharmacology • Therapeutic intervention - Rational Emotive Behaviour therapy – tackling irrational beliefs (e.g. need to keep new things clean) - Drug therapy – to deal with associated symptoms (e.g. anti-depressants) • Any other relevant description of a method of modifying the addiction	
Marks	**AO1**
9 - 10	• Explanation of the method(s) of modifying the addiction is thorough and accurate • There is depth and range to material included • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Explanation of the method(s) of modifying the addiction is reasonably detailed and accurate • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Explanation of the method(s) is basic in detail, there may be some inaccuracies • There is depth or range only in material used • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Explanation of the method(s) is superficial • Little use of appropriate terminology • Answer lacks clarity • Only the identification of a method of modifying
0	• Inappropriate answer given • No response attempted

Criteria for AO2 content of this question is on the next page

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a theoretical context when handling qualitative data.

Credit **could** be given for:

Application to:

- Theories regarding awareness of individual differences e.g. age and gender of the individual
- Frequency and intensity of the addiction: daily shopping for many items
- Need to hide behaviour
- Irrationality (e.g. spending more than she can afford; not placing clothes on child)

Marks	AO2
5	• Modifications used are applied well to the scenario throughout
3 - 4	• Modifications used are reasonably applied to the scenario, although there may be some aspects which are not applied
1 - 2	• Modifications used show superficial application to the scenario
0	• Modifications are not applied to the scenario • Inappropriate answer given • No response attempted

(b) Compare and contrast the strengths and weaknesses of **two** explanations of addictive behaviours. [10]

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.	
Credit **could** be given for: • Validity of having a single explanation for a wide variety of behaviours (e.g. addiction to chemical substances compared with addiction to a behaviour) • Comparison of the explanations in terms of application to therapy as evidence of their appropriateness • Cultural variety regarding acceptance of addictive behaviours • Interpretation of 'addictive behaviours' due to variety in cultural norms (e.g. in context of alcohol which is considered a socially acceptable substance in Western societies) • Conclusion as to which explanation is most valid, reliable and / or applicable • Any other relevant evaluation **NB** Evaluation of the approaches is acceptable but must be contextualised to explanations of addictive behaviour.	
Marks	**AO3**
9 - 10	• A thorough evaluation made of the explanations for addictive behaviours • Structure is logical throughout • An appropriate conclusion is reached based on evidence presented • Effective use of terminology is used throughout
6 - 8	• A good evaluation made of the explanations for addictive behaviours • Structure is mostly logical • A reasonable conclusion is reached based on evidence presented • Appropriate terminology is used throughout
3 - 5	• Basic evaluation is made of the explanations for addictive behaviours • Structure is reasonable • A basic conclusion is reached • Little use of appropriate terminology
1 - 2	• Superficial evaluation of the explanations for addictive behaviours • Answer lacks structure • There is no conclusion
0	• Inappropriate answer given • No response attempted

2. **Autistic spectrum behaviours**

(a) Describe **two** biological explanations of autistic spectrum behaviours. [10]

This question is focused mainly on demonstrating knowledge and understanding of scientific ideas.	
Credit **could** be given for: • Evidence from brain scanning procedures: proportion of white and grey material; three phases of early brain growth pathology; autistic children with an abnormally large frontal lobe volume also exhibit an abnormally small cerebellar vermis • Principles of genetic predisposition: multigene interactions or rare mutations with major effects; Autism Genome Project; Autism risk gene (impact on early development of brain structure) • Theory of epigenetics: individuals with Fragile X and Rhett syndrome often show signs of autism • Chloride ions at birth: during delivery infants undergo a shift in chloride ion signalling in the brain due to oxytocin • Stress-diathesis explanation • Any other relevant biological explanation **NB** Both explanations need to be clearly distinct to allow credit for both.	
Marks	**AO1**
9 - 10	• Description of the explanations of autistic spectrum behaviours is thorough and accurate • There is depth and range to material included • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Description of the explanations of autistic spectrum behaviours is reasonably detailed and accurate • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Description of the explanation(s) of autistic spectrum behaviours is basic in detail, there may be some inaccuracies • There is depth or range only in material used • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Description of the explanation(s) of autistic spectrum behaviours is superficial • Little use of appropriate terminology • Answer lacks clarity and structure
0	• Inappropriate answer given • No response attempted

(b) A therapist uses Picture Exchange Communication System (PECS) to help modify a child's autistic behaviours. However, the parents would also like the therapist to consider using Relationship Development Intervention. With reference to the parents' wishes, compare the strengths and weakness of **both** these methods of modifying the child's behaviour. [15]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context.	
Credit **could** be given for: • Concerns of parents about suitability of the techniques of PECS • Inclusion of the whole family with the RDI • Research findings on the effectiveness of both therapies in a practical context • Any other appropriate evidence	
Marks	**AO2**
5	• The evidence used is well-chosen and applied effectively • There is depth and range to the evidence used • The details are accurate • Effective use of terminology
3 - 4	• Appropriate evidence used and applied • There is depth or range to the evidence used • Good use of terminology
1 - 2	• Material used is accurately described but not applied to the treatment of autistic spectrum • Basic use of terminology
0	• Inappropriate answer given • No attempt at application

Criteria for AO3 content of this question is on the next page

2. (b) continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.

Credit **could** be given for:

- Strengths of PECS: increases social communication skills; facilitates acquisition of speech; decreases problem behaviours; client directed; can be used by all ages
- Weaknesses of PECS: parents concern about delaying speech development; difficult to ensure the appropriate emotion is conveyed; requires training of teachers and family members
- Strengths of RDI: used in the natural environment of the individual; immediate response by parents; empowers parents to model various experience-sharing abilities in a socially meaningful way
- Weaknesses of RDI: little empirical data to support effectiveness (is it therefore ethical/appropriate to use?); requires full involvement and commitment by the family; need to match individuals could be problematic
- Attention to individual differences and need to adapt generic principles to a particular individual
- Is there a need for treatment anyway – appropriateness of autism as a pathology
- Overall judgment on the methods

- Any other appropriate discussion of the strengths and weaknesses

Marks	AO3
9 - 10	• A thorough discussion made of the modifications for autistic spectrum behaviours • There is depth and range to the discussion • Structure is logical throughout • An appropriate conclusion is reached based on the analysis and interpretation of the evidence presented
6 - 8	• A good discussion is made of the modifications for autistic spectrum behaviours • There is depth and range to the discussion (not necessarily in equal measure) • Structure is mostly logical • A reasonable conclusion is reached based on the analysis and interpretation of the evidence presented
3 - 5	• Basic discussion is made of the modifications for autistic spectrum behaviours • There is depth or range only to the discussion • Structure is reasonable • A basic conclusion is reached
1 - 2	• Superficial discussion is made of the modifications for autistic spectrum disorders • Answer lacks structure • There is no conclusion
0	• Inappropriate answer given • No response attempted

3. **Bullying behaviours**

(a) Describe **one** method of modifying bullying behaviour. [10]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.
Credit **could** be given for: • CAPSLE: addresses relationship between bully, victim and bystander; all members of the school play a role; five strategies to improve mentalisation • Olweus bullying prevention programme: all students and staff take part; individual intervention for possible victims and those bullying others • Social Skills Training: emphasising cognitive aspects of relations and emotions; teaching pro-social skills as well as how to identify negative perceptions and behaviours • Any other relevant method of modifying bullying behaviour

Marks	AO1
9 - 10	• Description of the method of modifying bullying behaviours is thorough and accurate • There is depth and range to material included • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Description of the method of modifying bullying behaviours is reasonably detailed and accurate • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Description of the method of modifying bullying behaviours is basic in detail, there may be some inaccuracies • There is depth or range only in material used • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Description of the method of modifying bullying behaviours is superficial • Little use of appropriate terminology • Answer lacks clarity and structure
0	• Inappropriate answer given • No response attempted

(b) 'Bullies are born not made.' Assess how far you agree with this statement.

[15]

This question is focused applying knowledge and understanding of scientific ideas in a theoretical context.

Credit **could** be given for:

- Theoretical evidence that bullies are born that way
  - Genetic predisposition (e.g. absence of the MAOA gene; findings from twin studies)
  - Exposure to stress hormones in the womb
- Theoretical evidence that bullies are not born that way
  - Low self-esteem (e.g. due to being themselves the victim of a bully)
  - Active-authoritarian personality (e.g. Fromm, sadistic control of others)
  - Inappropriate socialisation during childhood (e.g. inconsistent discipline)
- Any other appropriate evidence

Marks	AO2
5	• Explanation is detailed and accurate • Evidence is well chosen • Application of the material is very well judged • Effective use of terminology
3 - 4	• Explanation is detailed with minor inaccuracies • Evidence is well chosen • Application of the material is appropriate • Good use of terminology
1 - 2	• Explanation is brief and / or muddled • Material used is described but not applied to the aetiology of bullying behaviour • Basic use of terminology
0	• Inappropriate answer given • No application attempted

Criteria for AO3 content of this question is on the next page

3. (b) continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.

Credit **could** be given for:

- Difficulties with separating the influences of nature and those of nurture
- Epigenetics: judgment on the balance of influences
- Ethical implications of knowing the reason why a person shows bullying behaviours
- The importance of knowing why a person develops bullying behaviour
- Interpretation of the definition of 'bullying' (e.g. aggression or assertion)
- Analysis of the historical evolution of the critical issue
- Gender differences (e.g. should males and females be explained similarly)
- Final conclusion on the validity of the statement

- Any other appropriate analysis of the issue

Marks	AO3
9 - 10	• A thorough assessment is made of the explanations for bullying behaviours • Structure is logical throughout • There is depth and range to the material • An appropriate conclusion is reached based on evidence presented • Effective use of terminology is used throughout
6 - 8	• A good assessment is made of the explanations for bullying behaviours • Structure is mostly logical • There is depth and range to the material (not necessarily equal) • A reasonable conclusion is reached based on evidence presented • Appropriate terminology is used throughout
3 - 5	• Basic assessment is made of the explanations for bullying behaviours • Structure is reasonable • There is depth or range to the material • A basic conclusion is reached • Little use of appropriate terminology
1 - 2	• Superficial assessment of the explanations for bullying behaviours • Answer lacks structure • There is no conclusion
0	• Inappropriate answer given • No response attempted

4. **Criminal Behaviours**

(a) Describe **one** biological and **one** social psychological explanation for criminal behaviour. [10]

This question is focused mainly on demonstrating knowledge and understanding of scientific ideas.	
Credit **could** be given for: • Biological explanation: Genetic hereditary; hormones – levels of testosterone; XYY chromosome; Sheldon's somatotypes – higher inclusion of mesomorphs in criminal populations; brain function (e.g. Raine's research) • Social explanation: Differential association theory (Sutherland); gender socialisation; social-cognition (e.g. hate crimes) • Any other appropriate explanation	
Marks	**AO1**
9 - 10	• Description of both explanations of criminal behaviours is thorough and accurate • There is depth to both biological and social psychological explanations of criminal behaviour • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Description of both explanations of criminal behaviours is reasonably detailed and accurate • There is reasonable depth to both biological and social psychological explanations of criminal behaviour • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Description of the explanation(s) of criminal behaviours is basic in detail, there may be some inaccuracies • There is some depth to both explanations OR description of one explanation is thorough and accurate • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Description of the explanation(s) of criminal behaviours is superficial • Little use of appropriate terminology • Answer lacks clarity and structure
0	• Inappropriate answer given • No response attempted

(b) Restorative justice has been criticised for being an easy option for the criminal. Applying your knowledge and understanding of restorative justice **and** at least one other method of modifying criminal behaviour, discuss how far you agree with this criticism. [15]

This question is focused mainly on demonstrating knowledge and understanding of scientific ideas, processes, techniques and procedures in a theoretical context when handling quantitative data.

Credit **could** be given for:

- Application of the principles of restorative justice: victim-offender mediation; family group conferencing; restorative conferencing
- Examples of the principles of anger management applied to modifying criminal behaviour:
  cognitive preparation, skills acquisition (e.g. relaxation, social skills such as assertiveness and conflict resolution which could include role-playing angry situations with other offenders)
- Use of data on recidivism rates

- Any other appropriate evidence

Marks	AO2
5	• Explanation is detailed and accurate • Evidence is well chosen • Application of the material is very well judged • Effective use of terminology
3 - 4	• Explanation is detailed with minor inaccuracies • Evidence is well chosen • Application of the material is appropriate • Good use of terminology
1 - 2	• Explanation is brief and / or muddled • Material used is described but not applied to modifying criminal behaviour • Basic use of terminology
0	• Inappropriate answer given • No response attempted

Criteria for AO3 content of this question is on the next page

4. (b) continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.

Credit **could** be given for:

- Discussion regarding the purpose of restorative justice – criminals taking responsibility for their actions
- Discussion of the assumptions behind other methods of modifying criminal behaviours (e.g. anger management use of cognitive triad to deal with the reasons for the criminal behaviours)
- The link between method of modifying and the validity of the explanation for criminal behaviour
- Ethical and social implications of using restorative justice (e.g. ensures more power to the victims of crime)
- The implications of using a lesser effective method
- Final conclusion on the overall discussion (e.g. appropriateness of using restorative justice)

- Any other relevant discussion

Marks	AO3
9 - 10	• A thorough discussion is made of the criticism • Structure is logical throughout • There is depth and range to the material • An appropriate conclusion is reached based on evidence presented • Effective use of terminology is used throughout
6 - 8	• A good discussion is made of the criticism • Structure is mostly logical • There is depth and range to the material (not necessarily in equal measure) • A reasonable conclusion is reached based on evidence presented • Appropriate terminology is used throughout
3 - 5	• Basic discussion is made of the criticism • Structure is reasonable • There is depth or range to the material • A basic conclusion is reached • Little use of appropriate terminology
1 - 2	• Superficial discussion of the criticism • Answer lacks structure • There is no conclusion
0	• Inappropriate answer given • No response attempted

5. **Schizophrenia**

(a) Describe the characteristics of behaviour that lead to a diagnosis of schizophrenia. [10]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.
Credit **could** be given for: • Delusions: of persecution, of grandeur, of reference, of control • Hallucinations: e.g. auditory, visual (seeing objects and / or things) • Disorganised speech: e.g. word salad • Disorganised behaviour: e.g. lack of inhibition, bizarre and unpredictable • 'Negative' symptoms: social withdrawal, deterioration of personal hygiene, inability to cry or express joy, unable to concentrate • Duration of symptoms necessary for diagnosis • Any other appropriate characteristic (as cited in DSM V)

Marks	AO1
9 - 10	• Description of the characteristics of schizophrenia is thorough and accurate • There is depth and range to material included • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Description of the characteristics of schizophrenia is reasonably detailed and accurate • There is depth and range to the material (not necessarily in equal measure) • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Description of the characteristics of schizophrenia is basic in detail • There may be inaccuracies • There is depth or range only to the material used • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Description of the characteristics of schizophrenia is superficial • Little use of appropriate terminology • Answer lacks clarity and structure
0	• Inappropriate answer given • No response attempted

(b) Schizophrenia has significant economic consequences; the costs impact on many different parts of society, especially on individuals with schizophrenia and their families. Overall, schizophrenia is estimated to cost English society £11 billion per year. With reference to this fact, apply your knowledge and understanding to discuss the ethical and social implications of two different methods of modifying schizophrenia. [15]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a practical context when handling qualitative data.

Credit **could** be given for:

- 'Care in the Community' (could refer to case studies e.g. Sirhowy Hotel murder)
- Medication: antipsychotic drugs may reduce symptoms such as delusions and hallucinations
- Psychological treatment: e.g. cognitive behavioural therapy and family therapy in practice
- Voluntary and compulsory detention: serious episodes may require admission to a psychiatric unit

- Any other appropriate evidence

Marks	AO2
5	• Evidence is detailed and accurate • Evidence is well chosen • Application of the material is well judged • Effective use of terminology
3 - 4	• Evidence is detailed with minor inaccuracies • Evidence is well chosen • Application of the material is appropriate • Good use of terminology
1 - 2	• Evidence is brief and / or muddled • Material used is described but not applied to the treatment of modifying schizophrenia • Basic use of terminology
0	• Inappropriate answer given • No response attempted

Criteria for AO3 content of this question is on the next page

5. (b) continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.

Credit **could** be given for:

- The costs of treating versus the costs of not treating
- The medicalization of what is considered appropriate behaviour in different cultures (e.g. hallucinations are not necessarily seen as a sign of mental illness in some African countries and therefore would not require 'treatment')
- Discussion regarding the purpose of modifying behaviour – control of the individual or to protect society
- The stigma of being labelled
- Choice of modifying method is dependent on the validity of the explanation for the cause of schizophrenia (link to approach must contextualised)
- Reliability of explanations (e.g. how treatments have improved with new knowledge)
- Conclusion on the overall ethical and social implications of treating schizophrenia

- Any other appropriate discussion

Marks	AO3
9 - 10	• A thorough discussion is made of the costs of schizophrenia • Structure is logical throughout • An appropriate conclusion is reached based on the analysis and interpretation of the evidence presented • Good use of terminology throughout
6 - 8	• A good discussion is made of the of the costs of schizophrenia • Structure is mostly logical • A reasonable conclusion is reached based on the analysis and interpretation of the evidence presented • Appropriate use of terminology throughout
3 - 5	• Basic discussion is made of the of the costs of schizophrenia • Structure is reasonable • A basic conclusion is reached based on the analysis and interpretation of the evidence presented • Basic use of appropriate terminology
1 - 2	• Superficial discussion of the of the costs of schizophrenia • Answer lacks structure • There is no conclusion • Little use of terminology
0	• Inappropriate answer given • No response attempted

6. **Stress**

(a) A middle-aged man who recently lost his job has recently started to experience typical symptoms of stress such as increased heart rate, sweaty palms and feelings of anxiety.

Outline how **one** method of modifying behaviour can be applied to any of these symptoms of stress. [5]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a theoretical context when handling qualitative data.	
Credit **could** be given for: • Beta Blockers: target the physical symptoms (e.g. fast heart beat). They work by blocking the action of the sympathetic nervous system (which controls the fight flight response) • Principles of cognitive behavioural therapy: target the negative thoughts which can lead to stress (cognitive restructuring). Possible therapies could be stress inoculation, mindfulness • Increasing hardiness: challenge personality types (commitment, control and challenge); procedures dealing with locus of control • Any other appropriate method of modifying these symptoms of stress	
Marks	**AO2**
5	• Outline is thorough and accurate throughout • Application of the material to the given symptom(s) of stress is very well judged • Effective use of terminology
3 - 4	• Outline is detailed with minor inaccuracies • Application of the material to the given symptom(s) of stress is appropriate • Good use of terminology
1 - 2	• Outline is superficial and / or muddled • Material used is described but not applied to the symptom(s) of stress • Basic use of terminology
0	• Therapy named only • Inappropriate answer given • No response attempted

(b) Using your own knowledge, analyse and evaluate **two** explanations for stress.

[20]

This question is focused mainly on demonstrating knowledge and understanding of scientific ideas.

Credit **could** be given for:

- Biological explanation: evolutionary adaptation to ensure avoidance of stressors; predisposed due to stress gene (named gene - 5HTR2C)
- Individual difference: type A, B, C personality (evidence from research e.g. Friedman and Rosenman); impact of self-efficacy levels on perceived control of a situation
- Social explanation: number of life events experienced in recent times (named life events e.g. divorce, holiday, and financial changes); daily hassles versus uplifts theory

- Any other appropriate psychological explanation

NB Both explanations should be clearly distinct to allow crediting both.

Marks	AO1
9 - 10	• Description of the explanations for stress are thorough and accurate • There is depth and range to material included • Effective use of terminology throughout • The structure is logical and coherent
6 - 8	• Description of the explanations for stress are reasonably detailed and accurate • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is mostly logical and coherent
3 - 5	• Description of the explanation(s) for stress is basic in detail, there may be some inaccuracies • There is depth or range only in material used • Some use of appropriate terminology • There is a reasonable structure
1 - 2	• Description of the explanation(s) for stress is superficial • Little use of appropriate terminology • Answer lacks clarity and structure
0	• Inappropriate answer given • No response attempted

Criteria for AO3 content of this question is on the next page

6. (b) continued

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.	
Credit **could** be given for: • Comparison of the two explanations in terms of validity, reliability, scientific, application to practical therapeutic context • A contextualised evaluation of the approach from which the explanation for stress derives • Social implications of the explanation (e.g. increase in diagnosis) • Ethical implications of the explanation (e.g. mis-diagnosis) • Judgment on most appropriate explanation • Any other relevant evaluation	
Marks	**AO3**
9 - 10	• A thorough analysis and evaluation is made of the explanations for stress • Structure is logical throughout • An appropriate conclusion is reached based on interpretation of the evidence presented • Effective use of terminology is used throughout
6 - 8	• A good analysis and evaluation is made of the explanations for stress • Structure is mostly logical • A reasonable conclusion is reached based on interpretation of the evidence presented • Appropriate terminology is used throughout
3 - 5	• Basic analysis and evaluation is made of the explanations for stress • Structure is reasonable • A basic conclusion is reached based on the interpretation of the evidence presented • Little use of appropriate terminology
1 - 2	• Superficial analysis / evaluation of the explanations for stress • Answer lacks structure • There is no conclusion
0	• Inappropriate answer given • No response attempted

SECTION B

7. 'Are unethical studies in psychology acceptable if you consider their greater good to society?' Using your knowledge of psychology, justify your answer. [25]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in theoretical and practical context when handling qualitative and quantitative data.

The important factor here is that the evidence used is appropriate and linked to the comments made. This is a question which is synoptic in its nature and therefore the material used to support the debate can be drawn from any area of psychology. Credit **could** therefore be given for any accurate psychological concept, evidence, research, study or theory from any approach or perspective.

Exemplar content:

- Research with non-human animals rather than humans (e.g. Brady's executive monkeys, animal models of schizophrenia, Bateson's cube)
- Historical examples before codes and guidelines were introduced (e.g. Watson and Rayner's study of Little Albert, Milgram's study of obedience)
- Theoretical context of the 'forbidden experiment' and the use of feral children (e.g. Victor, Genie)
- Examples of qualitative and quantitative data from research findings

Marks	AO2
9 - 10	• Evidence used is well-chosen • Details are accurate throughout • There is depth and range to material included • Effective use of terminology
6 - 8	• Evidence used is well-chosen • Details may have some minor inaccuracies • There is depth and range to material used, but not in equal measure • Good use of terminology
3 - 5	• Evidence not always relevant • There may be significant inaccuracies • There is depth or range only in material used • There is some use of appropriate terminology
1 - 2	• Little credit-worthy evidence given • Application of the evidence is inappropriate • There is very little use of appropriate terminology
0	• Inappropriate answer given • No response attempted

Criteria for AO3 content of this question is on the next page

7. continued

This question is focused mainly on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to develop and refine practical design and procedures.

The core of the issue in this question is ensuring an appropriate balance when psychological research is planned and carried out. It is about the responsibility of psychology in investigating both animal and human behaviour for the purpose of learning and improving.

Credit **could** be given for:
- Justification due to the historical and cultural context of the research
- Use of ethical guidelines and codes (e.g. British Psychological Society, American Psychological Association)
- Judgement on the responsibility of psychology (social gains versus individual rights)
- Important findings not made by concern regarding harm (e.g. the 'forbidden experiment')
- Suggestions on how to achieve appropriate balance by refining practical procedures

- Any other appropriate evaluation

Marks	AO3
13 - 15	• A sophisticated and articulate interpretation of the issue • Thoroughly well-developed and balanced arguments • There is depth and range to the material • Evaluative comments are evidently relevant to the context • Excellent structure • An appropriate conclusion is reached based on the evidence
10 - 12	• A good interpretation of the key issue • Arguments made are thorough and balanced • There is depth and range to the material (not necessarily in equal measure) • The evaluative comments are clearly relevant to the context • Good structure • An appropriate conclusion is reached
7 - 9	• A reasonable interpretation of the key issue • Arguments are reasonable but may be one-sided • There is depth or range to the material • The evaluative comments made tend to be generic and not contextualised • Coherent structure • A basic conclusion is made
4 - 6	• May be some misinterpretation regarding the key issue • Arguments made are basic but creditworthy • There is depth or range to the material • Answer does not move beyond assertions • Clear structure • Any conclusion may be contradictory with flow of the answer
1 - 3	• There is no engagement with the issue beyond simple rewording • There is no conclusion • Answer lacks clarity • Answer does not move beyond assertions
0	• Inappropriate answer given • No response attempted

8. 'It is crucial for psychology to be scientific.' Discuss the validity of this statement with reference to psychological ideas and procedures. [25]

This question is focused on applying knowledge and understanding of scientific ideas, processes, techniques and procedures in theoretical and practical context when handling qualitative and quantitative data.

The important factor here is that the evidence used is appropriate and linked to the comment made. This is a question which is synoptic in its nature and therefore the material used to support the debate can be drawn from any area of psychology. Credit **could** therefore be given for any accurate psychological concept, evidence, research, study or theory from any approach or perspective.

Exemplar content:

- Characteristics of science (e.g. empirical research, replicability)
- William Wundt's work (Leipzig laboratory 1890s)
- Thomas Khun's ideas on the need for clear paradigms
- Karl Popper's ideas on the need for science to develop theories that can be proved and disproved
- Examples of scientific work in psychology (e.g. brain scanning, experimentation in laboratories)
- Examples of less scientific work in psychology (e.g. psychodynamic and humanistic theories)
- Theoretical context in comparison with practical context (i.e. the application of ideas)
- The biological approach: testable assumptions (e.g. genetics)
- The cognitive approach: relationship with the cognitive sciences
- Use of quantitative data over qualitative data

Marks	AO2
9 - 10	• Evidence used is well-chosen • Details are accurate throughout • There is depth and range to material • Effective use of terminology
6 - 8	• Evidence used is well-chosen • Details may have some minor inaccuracies • There is depth and range to material (not necessarily in equal measure) • Good use of terminology
3 - 5	• Evidence not always made relevant to comment • There may be significant inaccuracies • There is depth or range only in material used • There is some use of appropriate terminology
1 - 2	• Little credit-worthy evidence given • Application of the evidence is inappropriate • There is very little use of appropriate terminology
0	• Inappropriate answer given • No response attempted

Criteria for AO3 content of this question is on the next page

8. continued

This question is focused mainly on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to develop and refine practical design and procedures.

The core of the issue in this question is the consequential implications of whether psychology is considered a science or not. Whilst considering which aspects of psychology can be considered scientific it is also necessary to make a judgement on the need for this status.

Credit **could** be given for:

- Support for the statement:
  - Reputation of the discipline and possible developments
  - Applications and usefulness in assisting real people (e.g. motivating performance)
  - Regular use of the scientific method in psychological investigations
  - Characteristics of science (e.g. replicability, empirical research, paradigm) and examples of these in identifiable psychological research
- Support against the statement:
  - Impact of the less scientific approaches (e.g. the popularity of early psychodynamic theories and use of the terminology in everyday language)
  - Lack of a single paradigm
  - Negative effects of gaining the status (e.g. intelligence testing)
- Overall conclusion
- Any other appropriate discussion

Marks	AO3
13 - 15	• A sophisticated and articulate interpretation of the issue • Thoroughly well-developed and balanced discussion • Evaluative comments are evidently relevant to the context • Excellent structure • An appropriate conclusion is reached based on the analysis of the evidence
10 - 12	• A good interpretation of the key issue • Discussion is thorough and balanced • The evaluative comments are clearly relevant to the context • Good structure • An appropriate conclusion is reached based on the analysis of the evidence
7 - 9	• A reasonable interpretation of the key issue • Discussion is reasonable but may be one-sided • The evaluative comments made tend to be generic (not in context) • Coherent structure • A basic conclusion is made based on the analysis of the evidence
4 - 6	• May be some misinterpretation regarding the key issue • Discussion is made are basic but creditworthy • Answer does not move beyond assertions • Basic structure • Any conclusion may be contradictory with flow of the answer
1 - 3	• There is no engagement with the issue beyond simple rewording • Answer does not move beyond assertions and no conclusion • Answer lacks clarity.
0	• Inappropriate answer given • No response attempted

Appendix 1: Mapping grid of assessment objectives

Assessment Objectives				Recall questions	Research methods	Mathematical skills (as identified in the criteria)
Question	**AO1**	**AO2**	**AO3**			
COMPONENT 1: Psychology: Past to Present						
1	6					
2	12				12	
3			16		16	
4	10					
5		12				
6 (a)		8				
6 (b)			12			
7	12		12			
Total	**40**	**20**	**40**		**28**	
COMPONENT 2: Psychology: Investigating Behaviour						
1	2			2		2 (D.1.6)
2			6		6	
3			6		6	
4	4			4	4	
5	6		6		6	
6 (a) (i)	3			3	3	
(ii)		2			2	
(b) (i)	2					2 (D.1.5)
(ii)		3				3 (D.1.5)
(c)			6		6	
(d)		3				3(D.0.3)
7		12			12	
8 (a)(i)		2				2 (D.1.6)
(ii)		2				2 (D.1.6)
(iii)			6			6 (D.1.6)
(b)	3			3		3 (D.1.14)
(c)		4				4 (D.1.12)
(d)		2				2 (D.1.13)
(e)		3				3 (D.1.13)
(f)		2				2 (D.2.1)
9		15			15	
Total	**20**	**50**	**30**	**12**	**60**	**34**
COMPONENT 3: Psychology: Implications in the Real World						
1 (Choose three)	10	5	10			
2	10	5	10			
3	10	5	10			
4	10	5	10			
5	10	5	10			
6	10	5	10			
7 (or)		10	15			
8		10	15			
Total	**30**	**25**	**45**			
Total in Series	**90**	**95**	**115**	**12**	**88**	**34**
% in Series	**30%**	**31⅔%**	**38⅓%**	**4%**	**29⅓%**	**11⅓%**

Appendix 2: Mapping grid of content coverage

Specification Content		Component 1 questions	Component 2 questions	Component 3 questions
Carry out ethical investigative activities		**3**, 7	2, 6, **7,** 9	1, 4, **5,** 6, **7,** 8
Cognitive Psychology		**2, 4,** 7		1, 2 ,3, 4, 6, 7, 8
Social Psychology		3, 5 , 7	**5**	1, 2, 3, **4,** 5, 6
Developmental Psychology		**1,** 5, 6(a), 7		1,2, 3, 4, 5 ,6
Psychology of Individual Differences		**3**, 5, 7	9	1, 2, 3, 4, 5 ,6
Biological Psychology		**3,** 5, **6**, 7		1, **2**, 3, **4**, 5, 6, 7, 8
Collection of quantitative and qualitative data		2, 3, 5, 6(b), 7	1, 2, 3, 4, 5, **6**, 7, 8, 9,	7, 8
Experimental design		2, 3, 7	3, 8, 9	8
Specialist vocabulary and terminology		**1, 2, 3, 4, 5, 6, 7**	2, 3, 4, 5, 6, 7, 8, 9	**1, 2, 3, 4, 5, 6, 7, 8**
Psychological theories, concepts and studies		**1, 2, 3, 4, 5, 6, 7**	5, 7, 9	**1, 2, 3, 4, 5, 6, 7, 8**
Strengths and weaknesses of methods of research		3, 5, 6, 7	2, 3, 5, 6, 7, 8	1, 2, 3, 4, 5, 6, 7, 8
Understanding of individual, social and cultural diversity		3, 5**, 7**		**1, 2, 3, 4, 5, 6,** 7, 8
Psychological approaches:	Cognitive	**2**, **4,** 7		1, 2, 3, 4, 5, 6, 7, 8
	Biological	3, **6**, 7		1, 2, 3, 4, 5, 6, 7, 8
	Behaviourist	**6,** 7		1, 2, 3, 4, 5, 6, 7, 8,
	Psychodynamic	**1**, 7		1, 2, 3, 6, 7, 8

Key: **Required use /** Possible use