

GCE AS

WJEC Eduqas GCE AS in PSYCHOLOGY

ACCREDITED BY OFQUAL

SPECIMEN ASSESSMENT MATERIALS

Teaching from 2015



Contents

	Page
Question Papers	
COMPONENT 1: Psychology: Past to Present	5
COMPONENT 2: Psychology: Investigating Behaviour	7
Mark Schemes	
COMPONENT 1: Psychology: Past to Present	15
COMPONENT 2: Psychology: Investigating Behaviour	29
Mapping grid of assessment objectives	54
Mapping grid of content coverage	55



AS PSYCHOLOGY

COMPONENT 1

Psychology: Past to Present

SPECIMEN PAPER

1 hour 45 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. Answer either (a) **or** (b)
 - (a) One principle used in Rational Emotive Behaviour Therapy (REBT) is 'challenging awfulising beliefs'. Identify and explain **one** other principle that is used during REBT. [4]
 - (b) One principle used in Cognitive Behavioural Therapy (CBT) is 'therapy during therapy'. Identify and explain **one** other principle that is used during CBT. [4]
2. Describe the procedures of Raine, Buchsbaum and LaCasse's (1997) research *Brain abnormalities in murderers indicated by positron emission tomography*. [10]
3. Describe how the assumptions of the positive approach have been used in either Quality of life therapy **OR** mindfulness therapy. [10]
4. "Special bonds with other people are important for both mental and physical health". With reference to this quote, explain how relationships are formed using your knowledge of **two** psychological approaches. [10]
5. Describe the findings of Loftus and Palmer's (1974) research 'Reconstruction of automobile destruction: an example of the interaction between language and memory'. [6]
6. 'The behaviourist approach is more appropriate to explain human behaviour than the psychodynamic approach'. Critically assess this statement with reference to your knowledge of the strengths and weaknesses of **both** these approaches. [10]
7. Evaluate the ethical issues of Watson and Rayner's (1920) study 'Conditioned emotional reactions'. [10]
8. 'It is important that children are both punished for wrong doing and praised when good to ensure that they learn the correct ways to behave'. With reference to psychological knowledge, discuss to what extent you agree with this statement. [20]

End of paper



AS PSYCHOLOGY

COMPONENT 2

Psychology: Investigating Behaviour

SPECIMEN PAPER

1 hour 45 minutes



ADDITIONAL MATERIALS

In addition to this examination paper, you will need a 12 page answer book and 2 pieces of graph paper.

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 or part-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.

Section A

Answer **all** questions.

1. Define what is meant by 'social desirability' in psychological research. [2]
2. Describe the main features of a quasi-experiment. [4]
3. Identify what is being described in the following statements:
 - (a) The process by which psychological research is assessed to ensure that it is of sufficient quality, usually conducted prior to publication. [1]
 - (b) An experimental design where participants are randomly allocated to either the experimental or control condition. [1]
 - (c) The most basic level of measurement. [1]
 - (d) Sampling technique where every member of the target population has an equal chance of being selected for the sample. [1]
4. Explain the difference between the 0.02 and 0.05 levels of significance. [2]
5. Describe the procedures in Milgram's (1963) *Behavioural study of Obedience*. [8]
6. Developmental psychologists often need to work with children. With reference to Kohlberg's (1968) *The child as a moral philosopher*, comment on the issues that this raises. [6]

Questions continue on the next page

Section B

*Answer **all** questions.*

7. A psychologist was interested in whether drinking water during the school day would have an effect on children's cognitive performance. He was given permission by the head teacher of a local high school to carry out his investigation on 100 of the 15 year olds studying Mathematics GCSE. The students were put into matched pairs based on their gender and their performance on a previous maths test. One from each pair was put into condition A; Condition A were each given a litre of bottled water to drink through the school day. The other person from the matched pair was assigned to condition B; Condition B received no bottle of water. During the last lesson of the day, all of the students were given the same maths test (maximum marks of 50) to determine how much they had learnt during that day's maths lesson. The results are shown in Table 1 below:

Table 1: Summary table of scores in the maths test of students given water and not given water.

Score in the maths test (/ 50)	Number of students	
	Condition A (water given)	Condition B (no water given)
0 - 10	0	2
11 - 20	6	13
21 - 30	23	15
31 - 40	14	17
41 - 50	7	3
Total number	50	50

- (a) Identify the independent variable in this research. [1]
- (b) Identify the dependent variable in this research. [1]
- (c) Outline **one** form of qualitative data that could be collected in this research. [2]
- (d) Describe **two** issues of validity in this research. [4]
- (e) Identify the level of measurement of the 'maths test scores' and explain your answer. [3]
- (f) Identify an appropriate inferential statistical test that could be used to analyse the data in this research and justify your choice. [3]

Questions continue on the next page

- (g) The researcher used an opportunity sample of students in a local high school. Describe **one** advantage and **one** disadvantage of using an opportunity sample in this research. [4]
- (h) Identify an alternative sampling technique that could have been used in this research and explain how it could have been used by the psychologist when conducting this research. [3]
8. A psychologist conducted a questionnaire amongst first time mothers to investigate their experiences against their expectations. The psychologist advertised for first time mothers using posters displayed at 4 different hospitals around the UK. An extract from the advert can be seen below:

Are you a first time mum?

Would you be willing to take part in research about the experiences and expectations of first time mothers?

The research would require you completing two questionnaires; one questionnaire when you are 6 months pregnant and another questionnaire when your baby is 6 months old.

Your results will remain confidential. If you decide to participate you can still withdraw from the research at any time.

If you would like more information or would like to take part in the research, please contact

A.Researcher@eduqas.ac.uk

The psychologist used the first 10 women to respond to her advert. She emailed the first questionnaire when the women were 6 months pregnant and then emailed the second questionnaire when the babies were 6 months old.

One of the questions included in both questionnaires was 'How satisfied are you with your life at present?' The women responded to this question on the scale shown below:

0	1	2	3
Not satisfied	Slightly satisfied	Mostly satisfied	Completely satisfied

The results are shown in *Table 2* on next page.

Questions continue on the next page

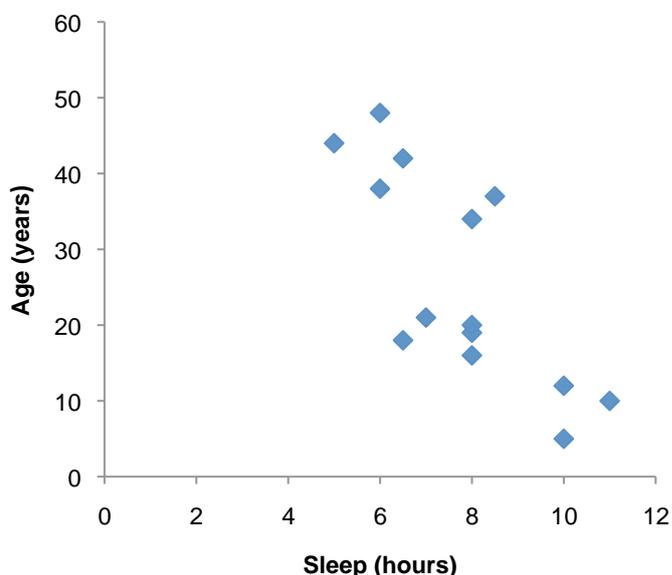
Table 2: Responses to “How satisfied are you with your life at present?”

Woman's ID number	Satisfaction score	
	At 6 months pregnant	When baby 6 months old
1	3	3
2	2	3
3	1	3
4	3	1
5	2	3
6	3	3
7	0	0
8	3	3
9	2	3
10	3	2

- (a) Identify the sampling method used by the psychologist in this research. [1]
- (b) Identify **four** ways that the researcher behaved in an ethical way when conducting her research. [4]
- (c) Calculate the mean satisfaction score for ‘6 months pregnant’ condition. You should show your calculations. [2]
- (d) Calculate the mean satisfaction score for the ‘when baby is 6 months old’ condition. You should show your calculations. [2]
- (e) Give **one** conclusion that can be drawn from the mean satisfaction scores [calculated in 8(c) and 8(d)]. [3]
- (f) Explain **one** strength and **one** weakness of using the mean score as a measure of central tendency in this research. [4]
- (g) The researcher found that the quantitative data collected to represent satisfaction scores was not very detailed and so she decided to repeat her research, but this time collecting qualitative data. Explain how the researcher could do this. You should identify and justify an appropriate methodology in your answer. [3]

Questions continue on the next page

9. A team of psychologists wants to investigate if the amount of sleep required corresponds with age. They ask 15 participants, chosen at random from the register of a local surgery, to self-report over a period of a week 'How many hours sleep they have each night?' and 'How old are you?' The researchers averaged the weekly night sleep and then plotted the results from these two questions onto a scatter diagram, see below:



- (a) Suggest a suitable null hypothesis for this research. [2]
- (b) One of the research team is concerned about the internal reliability of this study. Outline **one** issue of internal reliability that may arise in this research. [2]
- (c) Explain how the reliability issue noted in (b) could be assessed. [3]
- (d) The researchers used a Spearman's rank order correlation coefficient to further analyse their data. Justify why this test is appropriate for analysing the data collected in this research. [3]
- (e) One of the research team decides that he would like to repeat this research, but instead of using self-reports decides to invite the participants to his sleep laboratory where they will spend each night for a week under his observation. Explain how this might impact on the results. [4]

End of questions

Mark Schemes

AS

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 very different to marking as a teacher (i.e. it is about rewarding rather than guiding).
- Examiners should read answers carefully and not make any presumptions. 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 judgement. 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 candidates 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. Answer **either** (a) **or** (b)

- (a) One principle used in Rational Emotive Behaviour Therapy (REBT) is 'challenging awfulising beliefs'. Identify and explain **one** other principle that is used during REBT. [4]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
Credit could be given for:	Credit could be given for:
<ul style="list-style-type: none"> • Unconditional positive regard: <ul style="list-style-type: none"> - Value of client as a human being - Making client feel less worthless - Therapist provides respect regardless of client beliefs • Any other appropriate principle 	<ul style="list-style-type: none"> • ABCDE Model: <ul style="list-style-type: none"> - Aim of changing beliefs regardless of activating event - Disputing beliefs e.g. logical, empirical, pragmatic - Catastrophising to rational interpretation of events • Any other appropriate principle
Marks	AO1
4	<ul style="list-style-type: none"> • The principle is clearly identified • Explanation is accurate and detailed • Effective use of terminology
3	<ul style="list-style-type: none"> • The principle is clearly identified and explanation reasonably accurate and detailed OR • The principle is not named but a clearly detailed explanation allows identification • Good use of terminology
2	<ul style="list-style-type: none"> • The principle is identified and explanation is basic OR • The principle is not named but the explanation is reasonably detailed • Some use of appropriate terminology
1	<ul style="list-style-type: none"> • The principle is identified only OR • Superficial explanation of the principle • Very little use of appropriate terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (b) One principle used in Cognitive Behavioural Therapy (CBT) is ‘therapy during therapy’. Identify and explain **one** other principle that is used during CBT. [4]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
<p>Credit could be given for:</p> <ul style="list-style-type: none"> • Dysfunctional Thought Diary: <ul style="list-style-type: none"> - Homework task - Recording unpleasant emotions - Rating and re-rating beliefs and automatic thoughts • Any other appropriate principle 	<p>Credit could be given for:</p> <ul style="list-style-type: none"> • Meichenbaum’s SIT: <ul style="list-style-type: none"> - Ability to change reaction to stress rather than stressor - Stress inoculation - Three inoculation stages e.g. conceptualisation phase, skills acquisition phase, application phase • Any other appropriate principle
Marks	AO1
4	<ul style="list-style-type: none"> • The principle is clearly identified • Explanation is accurate and detailed • Effective use of terminology
3	<ul style="list-style-type: none"> • The principle is clearly identified and explanation reasonably accurate and detailed OR • The principle is not named but a clearly detailed explanation allows identification • Good use of terminology
2	<ul style="list-style-type: none"> • The principle is identified and explanation is basic OR • The principle is not named but the explanation is reasonably detailed • Some use of appropriate terminology
1	<ul style="list-style-type: none"> • The principle is identified only OR • Superficial explanation of the principle • Very little use of appropriate terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

2. Describe the procedures of Raine, Buchsbaum and LaCasse's (1997) research *Brain abnormalities in murderers indicated by positron emission tomography*. [10]

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

Credit **could** be given for:

- Key elements – description of the 41 NGRIs (experimental group)(e.g. reason for referral); some areas of the brain studied; brain scan(s) used
- Location of the study (University of California, Irvine)
- Details of the control group
- PET Task procedures
- Identification of brain regions (i.e. cortical peel and box techniques)

- Any other appropriate material

NB Credit will only be given to procedures from the original article.

Marks	AO1
9 - 10	<ul style="list-style-type: none"> • Description includes the key elements and is accurate and detailed • There is depth and range to material included • Effective use of terminology throughout • The structure is logical
6 - 8	<ul style="list-style-type: none"> • Description includes the key elements and is reasonably accurate and detailed • There is depth and range to material used, but not in equal measure • Good use of terminology • The structure is logical
3 - 5	<ul style="list-style-type: none"> • Description is basic in detail and some key elements are missing • There is depth or range of material • There is some use of appropriate terminology • The structure is reasonable
1 - 2	<ul style="list-style-type: none"> • Description is superficial and most key elements are missing • Very little use of appropriate terminology • Answer lacks structure
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

3. Describe how the assumptions of the positive approach have been used in either Quality of life therapy **OR** mindfulness therapy. [10]

This question is focused mainly on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
<p>Credit could be given for:</p> <p>Quality of life therapy:</p> <ul style="list-style-type: none"> • Focus on ‘the good life’ • Use of Quality of Life Inventory to plan interventions • Links to Beck’s Cognitive Therapy • Links to the assumption of free will, 3 nodes (subjective, individual, group) • Any other relevant material 	<p>Credit could be given for:</p> <p>Mindfulness therapy:</p> <ul style="list-style-type: none"> • Acknowledgment of free will • Creating conditions for contentment to develop • Focusing on the ‘here and now’ in a non-judgmental way • Does not involve itself with changing your thinking • Focus on positive mental health rather than mental illness (authenticity of goodness) • Any other relevant material
Marks	AO1
9 - 10	<ul style="list-style-type: none"> • The description of how the assumptions of the approach are used in 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	<ul style="list-style-type: none"> • The description of how the assumptions of the approach are used in therapy is evident • Depth and range of material (though not in equal measures) • There may be minor inaccuracies • Good use of terminology • The structure is mostly logical
3 - 5	<ul style="list-style-type: none"> • The description of how the assumptions of the approach are used in therapy is superficial • Depth or range only in material used • Inaccuracies throughout • Some use of appropriate terminology • The structure is reasonable
1 - 2	<ul style="list-style-type: none"> • The description of how the approach is used in therapy is not evident • Very basic explanation of material • Little use of appropriate terminology • Answer lacks structure
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

4. “Special bonds with other people are important for both mental and physical health”. With reference to this quote, explain how relationships are formed using your knowledge of **two** psychological approaches. [10]

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:

- Biological – evolutionary explanations; serotonin levels (e.g. Marazziti)
- Psychodynamic – Bowlby (e.g. attachment theory); Freud (e.g. Oedipus Complex)
- Behaviourist – Reinforcement-Affect Model; Conrad Lorenz; conditioning
- Cognitive – relationship schemas; perception of self and others
- Positive – self-expansion theory; self-other overlap
- Any other appropriate explanation (e.g. social psychology or developmental psychology)

NB The focus is on the generic concept of relationship formation – there is no need to identify particular types of relationship.

Marks (per approach)	AO2
5	<ul style="list-style-type: none"> • Application of knowledge to relationship formation is very well-chosen • Reference to the quote is clear • Explanation is clearly detailed and accurate • Effective use of terminology
3 - 4	<ul style="list-style-type: none"> • Application of knowledge to relationship formation is appropriate • There is some reference to the quote • Explanation is reasonably detailed and accurate • Good use of terminology
1 - 2	<ul style="list-style-type: none"> • Application of knowledge to relationship formation is superficial • Superficial reference to the quote • Explanation is very limited and basic • Basic use of terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

5. Describe the findings of Loftus and Palmer's (1974) research '*Reconstruction of automobile destruction: an example of the interaction between language and memory*'. [6]

This question is focused on demonstrating knowledge of scientific processes, techniques and procedures.													
Credit could be given for:													
<ul style="list-style-type: none"> Estimated speeds with the five levels of the independent variable <table border="1"> <thead> <tr> <th>Verb</th> <th>mph</th> </tr> </thead> <tbody> <tr> <td>Smashed</td> <td>40.8</td> </tr> <tr> <td>Collided</td> <td>39.3</td> </tr> <tr> <td>Bumped</td> <td>38.1</td> </tr> <tr> <td>Hit</td> <td>34.0</td> </tr> <tr> <td>Contacted</td> <td>31.8</td> </tr> </tbody> </table>		Verb	mph	Smashed	40.8	Collided	39.3	Bumped	38.1	Hit	34.0	Contacted	31.8
Verb	mph												
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Collided	39.3												
Bumped	38.1												
Hit	34.0												
Contacted	31.8												
<ul style="list-style-type: none"> Number of participants responding to the 'did you see the broken glass?' <table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Hit</td> <td>7</td> <td>43</td> </tr> <tr> <td>Smashed</td> <td>16</td> <td>34</td> </tr> <tr> <td>No question / control</td> <td>6</td> <td>44</td> </tr> </tbody> </table>			Yes	No	Hit	7	43	Smashed	16	34	No question / control	6	44
	Yes	No											
Hit	7	43											
Smashed	16	34											
No question / control	6	44											
Major inaccuracies – omissions, wrong integer number Minor inaccuracies – wrong / missing decimal point													
Marks	AO1												
5 - 6	<ul style="list-style-type: none"> Findings from both experiments are provided Findings are clearly related to the critical questions There will be no major inaccuracies There may be up to two minor inaccuracies 												
4	<ul style="list-style-type: none"> Findings from both experiments are provided Findings are clearly related to the critical questions There is one major inaccuracy There may be up to two minor inaccuracies 												
3	<ul style="list-style-type: none"> Findings are related to the critical questions Accurate findings from one of the experiments is provided OR findings from both experiments are provided but there are two major inaccuracies and up to two minor inaccuracies 												
1 - 2	<ul style="list-style-type: none"> Findings from only one experiment are provided Findings are not clearly related to the critical question There are major inaccuracies throughout 												
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted 												

6. 'The behaviourist approach is more appropriate to explain human behaviour than the psychodynamic approach'. Critically assess this statement with reference to your knowledge of the strengths and weaknesses of **both** these approaches. [10]

This question is focused mainly on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.	
The key issue with this question is the comparison of the features of both approaches in order to make a final judgment about the appropriateness of each approach to explain human behaviour. Whilst reference to assumptions and therapies etc. are acceptable there is no credit for descriptions alone.	
Credit could be given for:	
<ul style="list-style-type: none"> • Analysis of the assumptions – validity (e.g. comparison of social learning theories vs unconscious influences); historical relevance due to advances made in psychological knowledge; scientific status and therefore reliability of assumptions and approaches • Overall strengths and weaknesses of each approach • Interpretation of data relating to effectiveness of therapies as evidence for accuracy of explaining human behaviour • Judgments on outcomes of the therapies (e.g. aversion therapy compared with psychodrama) as confirmation of appropriateness to explain human behaviour • Comparison with both approaches explaining animal behaviour • Any other appropriate issue of comparison 	
Marks	AO3
10	<ul style="list-style-type: none"> • A thorough assessment is made of the features of both approaches • There is range and depth to the material used • Structure is logical throughout • An appropriate conclusion is reached based on issues presented
7 - 9	<ul style="list-style-type: none"> • A good assessment is made of the features of both approaches • There is range and depth to the material used (though not necessarily in equal measures) • Structure is mostly logical • A reasonable conclusion is reached based on evidence presented
4 - 6	<ul style="list-style-type: none"> • Basic assessment is made of the features of both approaches • There is range or depth to the material used • Structure is reasonable • A basic conclusion is reached
1 - 3	<ul style="list-style-type: none"> • A superficial assessment is made of the features of both approaches • Description of the features only • Answer lacks structure • No conclusion
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

7. Evaluate the ethical issues of Watson and Rayner's (1920) study 'Conditioned emotional reactions'. [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:

- Use of a child in psychological research – lack of informed consent
- Exposing subject to knowingly frightening situations – the expectation that fear would be induced (could suggest that same principles could be observed with a more positive emotion)
- Potential long term developmental effects on Albert
- Information from the researchers: *'Albert was one of the best developed youngsters ever brought to the hospital ...stolid and unemotional. His stability was one of the principal reasons for using him as a subject in this test. It was felt that little harm would be done to him'*.
- Release of pictures following the research allowing identification of the individual thereby not ensuring confidentiality (see **NB** below)
- Any other relevant ethical issue

NB Due to the date of this research specific codes and guidelines for carrying out psychological research had not yet been published. Care should therefore be taken when crediting reference to these.

Marks	AO3
9 - 10	<ul style="list-style-type: none"> • A thorough evaluation is made of ethical issues • Clear link to the study • Structure is logical throughout • An appropriate conclusion is reached based on evidence presented
6 - 8	<ul style="list-style-type: none"> • A good evaluation is made of the ethical issues • Clear link to the study • Structure is mostly logical • A reasonable conclusion is reached based on evidence presented
3 - 5	<ul style="list-style-type: none"> • Basic evaluation is made of the ethical issues • Weak link to the study • Structure is reasonable • A basic conclusion is reached
1 - 2	<ul style="list-style-type: none"> • A superficial evaluation is made of the ethical issues • No link to the study • Answer lacks structure • No conclusion
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

8. 'It is important that children are both punished for wrong doing and praised when good to ensure that they learn the correct ways to behave'. With reference to psychological knowledge, discuss to what extent you agree with this statement. [20]

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

This debate is linked to the behaviourist 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:

- Types of punishment: corporal; time out; writing out lines (school context)
- Theories and research providing a foundation to conditioning techniques; e.g. Skinner (operant conditioning), Seligman (learned helplessness)
- Alfie Kohn 'The Myth of the spoiled child'
- Practical alternatives to punishment: opportunity for learning (building emotional intelligence)
- The Three C's Collaboration, Content and Choice
- Evidence from research (qualitative and quantitative data)

- Any other appropriate material

Marks	AO1
10	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Exemplars may not always be appropriate • 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	<ul style="list-style-type: none"> • Exemplars not always relevant • Little use of appropriate terminology • Answer lacks structure
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

8. continued

This question is focused mainly 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:	
<ul style="list-style-type: none"> • Appropriateness of the evidence applied to human behaviour from animal research • Ethical implications of choosing one strategy over another • Influence of the evidence on political decisions (e.g. laws to allow parents to smack child) • Improving methods of dealing with children: age of the child; appropriateness of response; cultural norms: changes in attitudes over time • Objective and subjective evaluation of the research (must be contextualised) to reach a conclusion • Any other appropriate analysis 	
Marks	AO3
10	<ul style="list-style-type: none"> • 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 evidence presented
7 - 9	<ul style="list-style-type: none"> • 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 evidence presented
4 - 6	<ul style="list-style-type: none"> • A reasonable discussion of both sides of the debate OR • Good discussion 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	<ul style="list-style-type: none"> • A superficial discussion is made of the debate • Evaluative comments are superficial • Answer lacks structure • No conclusion
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

AS

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 very different to marking as a teacher (i.e. it is about rewarding rather than guiding).
- Examiners should read answers carefully and not make any presumptions. 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 judgement. 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 candidates 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 based 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

1. Define what is meant by 'social desirability' in psychological research. [2]

This question is focused on demonstrating knowledge and understanding of scientific ideas.	
Credit could be given for:	
<ul style="list-style-type: none"> The tendency of participants in psychological research to respond / behave in a manner that will be viewed favourably by others Any other appropriate definition 	
Marks	AO1
2	<ul style="list-style-type: none"> Accurate definition given with clear link to psychological research
1	<ul style="list-style-type: none"> Basic, linked definition given OR Accurate definition which lacks a link to psychological research
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

2. Describe the main features of a quasi-experiment. [4]

This question is focused on demonstrating knowledge of scientific ideas.	
Credit could be given for:	
<ul style="list-style-type: none"> Involves manipulation of one or more independent variables and measuring the effect on the dependent variable. Take advantage of natural occurrences Subject allocation to level of IV is beyond the control of the experimenter Can compare pre- and post- events Also known as natural experiments Any other appropriate description 	
Marks	AO1
3 - 4	<ul style="list-style-type: none"> Thorough description of a quasi-experiment given Good use of appropriate terminology There is depth to the description
1 - 2	<ul style="list-style-type: none"> Basic description of a quasi-experiment given Some appropriate terminology is evident There is little depth to the description
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

3. Identify what is being described in the following statements:

- (a) The process by which psychological research is assessed to ensure that it is of sufficient quality, usually conducted prior to publication. [1]

This question is focused on demonstrating knowledge of scientific ideas.	
Marks	AO1
1	<ul style="list-style-type: none"> Peer Review
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

- (b) An experimental design where participants are randomly allocated to either the experimental or control condition. [1]

This question is focused on demonstrating knowledge of scientific ideas.	
Marks	AO1
1	<ul style="list-style-type: none"> Independent groups design Independent measures design
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

- (c) The most basic level of measurement. [1]

This question is focused on demonstrating knowledge of scientific ideas.	
Marks	AO1
1	<ul style="list-style-type: none"> Nominal Nominal data Nominal level of measurement
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

- (d) Sampling technique where every member of the target population has an equal chance of being selected for the sample. [1]

This question is focused on demonstrating knowledge of scientific ideas.	
Marks	AO1
1	<ul style="list-style-type: none"> Random sampling / sample
0	<ul style="list-style-type: none"> Inappropriate answer given No response attempted

4. Explain the difference between the 0.02 and 0.05 levels of significance. [2]

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

Credit **could** be given for:

Exemplar differences:

- 0.02 suggests a 2% probability, which is more stringent than 0.05 which suggests a 5% probability
- 0.02 is a more stringent level than 0.05
- Any other appropriate explanation

Marks	AO1
2	<ul style="list-style-type: none"> • Accurate explanation of difference given • Appropriate use of psychological terminology
1	<ul style="list-style-type: none"> • Basic explanation of the difference • Some use of appropriate psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

5. Describe the procedures in Milgram's (1963) *Behavioural study of Obedience*. [8]

This question is focused on demonstrating knowledge and understanding of scientific processes, techniques and procedures.	
Credit could be given for:	
<ul style="list-style-type: none"> • Placed advert in New Haven journal • Described as a study on memory and learning at Yale University • Paid \$4.50 • 40 male volunteers, all allocated to role of teacher • Presented to stooge who was to play role of learner • 'Shock generator' with 30 switches ranging from 15 to 450 volts • Read out list of paired words • Wrong answer resulted in a fake shock being given • Pre-recorded responses by the learner • Prompts given by the experimenter (e.g. '<i>it is absolutely essential that you carry on</i>') • Any other appropriate part of the procedure 	
Marks	AO1
7 - 8	<ul style="list-style-type: none"> • Thorough description of the procedures • There is depth and range to the material • Structure is logical
4 - 6	<ul style="list-style-type: none"> • Good description of the procedures • There is depth and range to the material (not necessarily in equal measures) • Structure is clear
1 - 3	<ul style="list-style-type: none"> • Basic description of the procedures • There is depth or range • Answer may be muddled
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

6. Developmental psychologists often need to work with children. With reference to Kohlberg's (1968) *The child as a moral philosopher* comment on the issues that this raises. [6]

This question is focused on interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.	
Credit could be given for:	
<ul style="list-style-type: none"> • Ethical consideration: care to prevent physical or psychological harm (e.g.moral dilemmas could parallel problems in own life) • Social desirability: children may be wanting to please the adult researcher and therefore respond how they think they should • Developmental stage: despite chronological age the child might not be able to deal with the demands of the research thereby compromising the results and reducing validity (e.g. understanding what meant by 'mercy kill') • Any other appropriate issue 	
Marks	AO3
5 - 6	<ul style="list-style-type: none"> • More than one issue is commented on in detail • There is depth and range to the comments • Clear link to the study • Excellent use of terminology
3 - 4	<ul style="list-style-type: none"> • There may be only one issue commented on in detail OR • More than one issue is commented on briefly • Clear link to the study • Good use of terminology
1 - 2	<ul style="list-style-type: none"> • Superficial and basic comments • There is no link to the study • Basic use of terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

7. A psychologist was interested in whether drinking water during the school day would have an effect on children's cognitive performance. He was given permission by the head teacher of a local high school to carry out his investigation on 100 of the 15 year olds studying Mathematics GCSE. The students were put into matched pairs based on their gender and their performance on a previous maths test. One from each pair was put into condition A; Condition A were each given a litre of bottled water to drink through the school day. The other person from the matched pair was assigned to condition B; Condition B received no bottle of water. During the last lesson of the day, all of the students were given the same maths test (maximum marks of 50) to determine how much they had learnt during that day's maths lesson. The results are shown in *Table 1* below:

Table 1: Summary table of scores in the maths test of students given water and not given water.

Score in the maths test (/ 50)	Number of students	
	Condition A (water given)	Condition B (no water given)
0 - 10	0	2
11 - 20	6	13
21 - 30	23	15
31 - 40	14	17
41 - 50	7	3
Total number	50	50

- (a) Identify the independent variable in this research. [1]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling qualitative data.	
Marks	AO2
1	Credit could be given for: <ul style="list-style-type: none"> • Whether water was given to the student or not • Given a litre bottle of water or not • Any other description that indicates the independent variable
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (b) Identify the dependent variable in this research. [1]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.	
Marks	AO2
1	Credit could be given for: <ul style="list-style-type: none"> • Maths result • Maths test score • Performance on maths test • Any other description that indicates the dependent variable
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (c) Outline **one** form of qualitative data that could be collected in this research. [2]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling qualitative data.	
Credit could be given for:	
<ul style="list-style-type: none"> • Response to questions such as: ‘how much do you enjoy maths?’, ‘how much do you like water?’, ‘what is your favourite subject in school?’ • Self-reports by the students on their school day • Any other appropriate form of qualitative data 	
Marks	AO2
2	<ul style="list-style-type: none"> • One form of qualitative data is clearly outlined • There is a link to this research
1	<ul style="list-style-type: none"> • One form of qualitative data is clearly outlined with no link to this research OR • One form of qualitative data is muddled with some link to this research
0	<ul style="list-style-type: none"> • Inappropriate answer given (e.g. data is quantitative) • No response attempted

(d) Describe **two** issues of validity in this research.

[4]

<p>This question is focused mainly on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling qualitative data.</p>	
<p>Credit could be given for:</p> <ul style="list-style-type: none"> • Those in Condition B might also be drinking without researchers knowing • The material taught in the lesson may be familiar to one of the students. • The initial maths test to allocate to groups could have been inappropriate to determine maths skills • Any other appropriate issue of validity 	
Marks	AO2
4	<ul style="list-style-type: none"> • Two clear and distinct issues are identified • The descriptions clearly links these issues to the given research • Excellent use of terminology
3	<ul style="list-style-type: none"> • Two clear issues are identified with descriptions linking these issues to the given research OR • Two clear and distinct issues are identified with basic links to the given research • Good use of terminology
2	<ul style="list-style-type: none"> • One clear issue is identified and the description clearly links this issue to the given research • Excellent use of terminology OR • Two clear and distinct issues are identified only • Some appropriate terminology is used
1	<ul style="list-style-type: none"> • One clear issue is identified only OR • Two issues are identified only
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (e) Identify the level of measurement of the 'maths test scores' and explain your answer. [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:	
<ul style="list-style-type: none"> • Identification of level of measurement: ratio data • Explanation of the answer: the scale the maths test scores are on have an equal interval and there is an 'absolute zero', a student could get 0/50 on the maths test • Any other appropriate explanation 	
Marks	AO2
3	<ul style="list-style-type: none"> • Level of measurement identified • Explanation is detailed and appropriately linked to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Level of measurement identified • Explanation is reasonably detailed and linked to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Level of measurement identified • Explanation is inappropriate or not at all linked to the research • Minimal use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (f) Identify an appropriate inferential statistical test that could be used to analyse the data in this research and justify your choice. [3]

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

Credit **could** be given for:

- Identification of inferential statistical test: Wilcoxon matched pairs sign test
- Justification:
 - test of difference (water or no water condition)
 - level of measurement at least ordinal (maths scores)
 - data is related (matched participants design)
- Any other appropriate justification

Marks	AO2
3	<ul style="list-style-type: none"> • Inferential statistical test identified • Justification is full and linked to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Inferential statistical test identified • Partial justification which is linked to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Inferential statistical test identified • Justification is inappropriate or not linked to the research • Minimal use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (g) The researcher used an opportunity sample of students in a local high school. Describe **one** advantage and **one** disadvantage of using an opportunity sample in this research. [4]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling data.	
Credit could be given for:	
<ul style="list-style-type: none"> • Exemplar advantage: <p>Researcher can use an easily accessible sample from the local high school, which may mean it is quicker and easier to locate than a sample identified using any other technique.</p>	
<ul style="list-style-type: none"> • Exemplar disadvantage: <p>Sample is unlikely to be representative as the sample is drawn from a limited population and the students' maths scores may be the result of the teaching methods used in that particular school.</p>	
<ul style="list-style-type: none"> • Any other appropriate advantage and disadvantage that relates to this opportunity sample 	
Marks (per advantage / disadvantage)	AO2
2	<ul style="list-style-type: none"> • Advantage / disadvantage of an opportunity sample in this research is clearly described • There is depth to the description • Good use of appropriate terminology
1	<ul style="list-style-type: none"> • Advantage / disadvantage of an opportunity sample in this research is described • Description is basic • Some use of appropriate terminology
0	<ul style="list-style-type: none"> • Advantage / disadvantage of an opportunity sample in this research is identified only • Inappropriate answer given • No response attempted

- (h) Identify an alternative sampling technique that could have been used in this research and explain how it could have been used by the psychologist when conducting this research. [3]

This question is focused on applying knowledge and understanding of scientific ideas in a theoretical context when handling data.	
Credit could be given for:	
<ul style="list-style-type: none"> • Identification of any alternative sampling technique e.g. random, stratified, volunteer • Explanation for the choice of sampling technique: <ul style="list-style-type: none"> - Random: place name of all those on the school register in a random name generator system and choose desired number - Volunteer: Place an advert on school website site asking for those with interest and able to participate to contact the researcher • Any other appropriate sampling technique and explanation 	
Marks	AO2
3	<ul style="list-style-type: none"> • Alternative and appropriate sampling technique is clearly identified • Explanation is detailed and linked to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Alternative and appropriate sampling technique is clearly identified • Explanation is reasonably detailed and linked to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Alternative and appropriate sampling technique is clearly identified • Explanation is inappropriate OR is appropriate but not linked at all to this research • Minimal use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

8. A psychologist conducted a questionnaire amongst first time mothers to investigate their experiences against their expectations. The psychologist advertised for first time mothers using posters displayed at 4 different hospitals around the UK. An extract from the advert can be seen below:

Are you a first time mum?

Would you be willing to take part in research about the experiences and expectations of first time mothers?

The research would require you completing two questionnaires; one questionnaire when you are 6 months pregnant and another questionnaire when your baby is 6 months old.

Your results will remain confidential. If you decide to participate you can still withdraw from the research at any time.

If you would like more information or would like to take part in the research, please contact

A.Researcher@eduqas.ac.uk

The psychologist used the first 10 women to respond to her advert. She emailed the first questionnaire when the women were 6 months pregnant and then emailed the second questionnaire when the babies were 6 months old.

One of the questions included in both questionnaires was 'How satisfied are you with your life at present?' The women responded to this question on the scale shown below:

0	1	2	3
Not satisfied	Slightly satisfied	Mostly satisfied	Completely satisfied

The results are shown in *Table 2* below.

Table 2: Responses to "How satisfied are you with your life at present?"

Woman's ID number	Satisfaction score	
	At 6 months pregnant	When baby 6 months old
1	3	3
2	2	3
3	1	3
4	3	1
5	2	3
6	3	3
7	0	0
8	3	3
9	2	3
10	3	2

- (a) Identify the sampling method used by the psychologist in this research. [1]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling quantitative data.	
Marks	AO2
1	Credit could be given for: <ul style="list-style-type: none"> • Volunteer sampling • Self-selected sampling • Any other description that indicates the appropriate sampling method
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (b) Identify **four** ways that the researcher behaved in an ethical way when conducting her research. [4]

This question is focused on analysing scientific information, ideas and evidence, including in relation to issues, to make judgements and reach conclusions.	
Credit could be given for:	
1 mark per issue (max. 4 marks)	
<ul style="list-style-type: none"> • Content of advert: <ul style="list-style-type: none"> - Aim stated in advert - Procedures explained in advert with timescale included - Confidentiality of participants data - Mothers' right to withdraw at any time • Any other appropriate issue relating to ethics 	
Marks	AO3
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (c) Calculate the mean satisfaction score for '6 months pregnant' condition. You should show your calculations. [2]

This question is focused on applying knowledge and understanding of scientific processes, techniques and procedures in a practical context when handling quantitative data.	
<ul style="list-style-type: none"> • Credit given for appropriate answer and calculations: $3+2+1+3+2+3+0+3+2+3 = 22$ $22/10 = 2.2$ Mean score = 2.2 	
Marks	AO2
2	<ul style="list-style-type: none"> • Correct mean given • Calculations shown
1	<ul style="list-style-type: none"> • Correct mean given OR • Calculations shown
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (d) Calculate the mean satisfaction score for the 'when baby is 6 months old' condition. You should show your calculations. [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:

- Appropriate answer and calculations:

$$3+3+3+1+3+3+0+3+3+2 = 24$$

$$24/10 = 2.4$$

$$\text{Mean score} = 2.4$$

Marks	AO2
2	<ul style="list-style-type: none"> • Correct mean given • Calculations shown
1	<ul style="list-style-type: none"> • Correct mean given OR • Calculations shown
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (e) Give **one** conclusion that can be drawn from the mean satisfaction scores [calculated in 8(c) and 8(d)]. [3]

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

Exemplar conclusions:

- The satisfaction scores at six months pregnant (2.2) were lower than the satisfaction scores when the baby was six months old (2.4).
- Although the mean scores for the at 6 months pregnant satisfaction scores (2.2) are similar to the satisfaction scores when the baby is 6 months old (2.4), the satisfaction scores for when the baby is 6 months old is slightly higher.
- Any other creditable conclusion

NB If there is an error in the calculations for 8(c) or 8(d), but conclusions drawn in (e) are appropriate, credit up to 2 marks if well linked.

Marks	AO3
3	<ul style="list-style-type: none"> • Conclusion is appropriate and well detailed • There is a clearly link to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Conclusion is appropriate and reasonably detailed • There is a link to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Conclusion is appropriate but superficial • May not be linked to the research • Little use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (f) Explain **one** strength and **one** weakness of using the mean score as a measure of central tendency in this research. [4]

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:	
<ul style="list-style-type: none"> • Strength: <ul style="list-style-type: none"> - Knowledge of the mean satisfaction scores will be necessary if the researcher wants to go on to calculate the standard deviation. • Weakness: <ul style="list-style-type: none"> - A couple of anomolous results within the sample might skew the mean satisfaction scores. • Any other appropriate strength and weakness that relates to primary data 	
Marks (per strength / weakness)	AO2
2	<ul style="list-style-type: none"> • Strength / weakness of using the mean in this research is clearly explained in detail • Good use of appropriate terminology
1	<ul style="list-style-type: none"> • Strength / weakness of using the mean in this research is explained with little detail • Some use of appropriate terminology
0	<ul style="list-style-type: none"> • Strength / weakness identified only • Inappropriate answer given • No response attempted

- (g) The researcher found that the quantitative data collected to represent satisfaction scores was not very detailed and so she decided to repeat her research, but this time collecting qualitative data. Explain how the researcher could do this. You should identify and justify an appropriate methodology in your answer. [3]

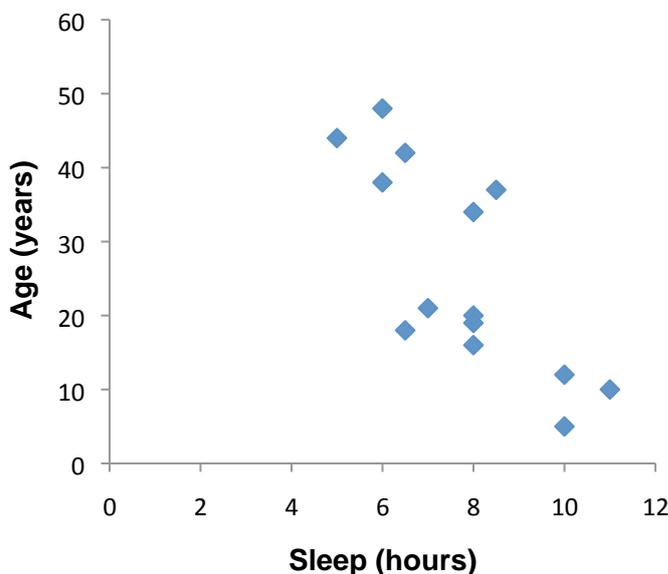
This question is focused on interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to develop and refine practical design and procedures.

Credit **could** be given for:

- Unstructured interviews allowing mothers to fully explain their answer
- Covert observations by setting up cameras in the women's homes to gather information about their moods and behaviours
- Case study involving partners, friends, health workers
- Any other appropriate methodology and justification

Marks	AO3
3	<ul style="list-style-type: none"> • Methodology is clearly identified and appropriate • Justification is detailed and linked to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Methodology is clearly identified and appropriate • Justification is reasonably detailed and linked to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Methodology is clearly identified and appropriate • Justification is inappropriate or is appropriate but not linked at all to this research • Minimal use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

9. A team of psychologists wants to investigate if the amount of sleep required corresponds with age. They ask 15 participants, chosen at random from the register of a local surgery, to self-report over a period of a week 'How many hours sleep they have each night?' and 'How old are you?'. The researchers averaged the weekly night sleep and then plotted the results from these two questions onto a scattergraph, see below:



- (a) Suggest a suitable null hypothesis for this research. [2]

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 hypotheses:	
<ul style="list-style-type: none"> • 'Any correlation between age (years) and sleep (hours) will be due to chance factors'. • 'There is no correlation between age and sleep'. • Any other appropriate directional hypothesis linked to this research 	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate null hypothesis is suggested • The variables are clearly identifiable (not necessarily operationalised)
1	<ul style="list-style-type: none"> • Basic null hypothesis is suggested • The variables are not fully clear
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (b) One of the research team is concerned about the internal reliability of this study. Outline **one** issue of internal reliability that may arise in this research. [2]

This question is focused on applying knowledge and understanding of scientific ideas in a practical context when handling data.	
Credit could be given for:	
<ul style="list-style-type: none"> • Differences in the way people respond to sleep questions: some participants may guess whereas some participants may be more accurate thinking of the time they went to bed and alarm went off • Participants may lie about their age due to not wanting others to know the truth • Any other appropriate outline of an internal reliability issue 	
NB Issues of external reliability will not receive credit.	
Marks	AO2
2	<ul style="list-style-type: none"> • Appropriate issue of internal reliability outlined in detail • There is a clear link to the research • Good use of appropriate terminology
1	<ul style="list-style-type: none"> • Appropriate issue of internal reliability is outlined • Weak some link to the research • Some appropriate terminology is evident
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (c) Explain how the reliability issue noted in (b) could be assessed. [3]

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

Credit **could** be given for:

- Internal reliability assessment technique: e.g. split-half by comparing the results of one half of a test with the results from the other half. If the two halves of the test provide similar results this would suggest that the test has internal reliability. The reliability of a test could be dealt with by checking the correlation of the two halves and if low the questions should be re-written or an alternative way used (e.g. observation).
- Any other appropriate explanation

Marks	AO2
3	<ul style="list-style-type: none"> • Reliability assessment method is clearly identified and appropriate • Explanation is detailed and linked to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Reliability assessment method is clearly identified and appropriate • Explanation is reasonably detailed and linked to the research. • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Reliability assessment method is clearly identified and appropriate • Explanation is inappropriate or is appropriate but not linked at all to this research • Minimal use of psychological terminology
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (d) The researchers used a Spearman's rank order correlation coefficient to further analyse their data. Justify why this test is appropriate for analysing the data collected in this research. [3]

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

Credit **could** be given for:

- Test of correlation (relationship between sleep and age)
- Level of measurement at least ordinal (sleep – hours, age - years)
- Data is related (participants contribute answers to both age and sleep questions)
- Any other appropriate justification

Marks	AO2
3	<ul style="list-style-type: none"> • Justification is thorough and appropriate • There are links to the research • Excellent use of psychological terminology
2	<ul style="list-style-type: none"> • Justification is appropriate and some detail • Linked to the research • Good use of psychological terminology
1	<ul style="list-style-type: none"> • Justification is limited • There is no link to the research • Minimal use of psychological terminology OR • Learner identifies all three reasons with no link to the research
0	<ul style="list-style-type: none"> • Inappropriate answer given • No response attempted

- (e) One of the research team decides that he would like to repeat this research, but instead of using self-reports decides to invite the participants to his sleep laboratory where they will spend each night for a week under his observation. Explain how this might impact on the results of the research. [4]

This question is focused on analysing, interpreting and evaluating scientific information, ideas and evidence, including in relation to issues, to develop and refine practical design and procedures.	
Credit could be given for:	
<ul style="list-style-type: none"> • Increases validity due to controlled environment • Reduces social desirability of persons not providing accurate data • Unfamiliar setting may disrupt usual sleep pattern and therefore results not as useful • Attrition: some participants may find it too much of an effort and not complete the week • Higher reliability due to all participants sleeping in same environment • Any other appropriate interpretation of the impact on the results 	
Marks	AO3
3 - 4	<ul style="list-style-type: none"> • There is a thorough explanation of the impact • The focus is on the results of the research • Good use of appropriate terminology
1 - 2	<ul style="list-style-type: none"> • Basic explanation of the impact • Not fully focused on the results of the research • Some use of appropriate terminology
0	<ul style="list-style-type: none"> • Issues of impact that are not made relevant to the results (e.g. decrease in ethical conduct) • Inappropriate answer given • No response attempted

Appendix 1: Mapping grid of assessment objectives

Assessment Objectives							
Question	AO1	AO2	AO3	Recall questions	Maths questions	Research methods	Mathematics skills (as identified in the criteria)
COMPONENT 1: Psychology: Past to Present							
1	4						
2	10						
3	10						
4		10					
5	6			6			
6			10				
7			10				
8	10		10				
Total	40	10	30				
Total number of marks for component	80						
COMPONENT 2: Psychology: Investigating Behaviour							
1	2					2	
2	4			4		4	
3 (a)	1			1		1	
(b)	1			1		1	
(c)	1			1	1		D.1.6
(d)	1			1		1	
4	2					2	
5	8					8	
6			6			6	
7 (a)		1				1	
(b)		1				1	
(c)		2				2	
(d)		4				4	
(e)		3			3		D.1.10
(f)		3			3		D.1.12
(g)		4			4		D.1.5
(h)		3			3		D.1.5
8 (a)		1				1	
(b)			4			4	
(c)		2			2		D.1.2
(d)		2			2		D.1.2
(e)			3		3		D.1.6
(f)		4				4	
(g)			3			3	
9 (a)		2				2	
(b)		2				2	
(c)		3				3	
(d)		3			3		D.1.12
(e)			4			4	
Total	20	40	20	8	24	56	
Total marks for component	80						
Total per series	60	50	50	Total marks for series		160	
%AO	37½	31¼	31¼	8%	15%	35%	

Appendix 2: Grid of content coverage

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

Key: **Required use** *Possible use*