Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students’ responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students’ scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students’ reactions to a particular paper. Assumptions about future mark schemes on the basis of one year’s document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk
Level of response marking instructions

Level of response mark schemes are broken down into two, three or four levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are two, three or four marks in each level.

Before you apply the mark scheme to a student’s answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student’s answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student’s answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the indicative content to reach the highest level of the mark scheme.

An answer which does not contain anything of relevance to the question must be awarded no marks.

Examiners are required to assign each of the students’ responses to the most appropriate level according to its overall quality, then allocate a single mark within the level. When deciding upon a mark in a level examiners should bear in mind the relative weightings of the assessment objectives (included for each question and summarised on page 15) and be careful not to over/under credit a particular skill. This will be exemplified and reinforced as part of examiner training and standardisation.
Section A
Approaches in Psychology

01 Which two of the following statements about the fight or flight response are correct? [2 marks]
Marks for this question: AO1 = 2
B and C

02 Briefly explain one function of the endocrine system. [2 marks]
Marks for this question: AO1 = 2
1 mark for a correct function of the endocrine system

- To secrete the hormones which are required to regulate many bodily functions
- To provide a chemical system of communication via the blood stream

1 mark for elaboration of how the function occurs: such as via release of the required amount of a specific hormone to promote appropriate growth or metabolism or reproduction.

03 Why are the standard deviation values found in the study above useful descriptive statistics for the cognitive psychologist? [2 marks]
Marks for this question: AO2 = 2

2 marks for a clear and coherent explanation of the usefulness of the standard deviation in this study.

1 mark for a weak or muddled answer in which the impact of the difference in the SDs is alluded to.

- useful to inform about the spread of scores
- indicates participant variables – as a group the people in Condition 1 are quite different/are more variable than those in Condition 2.

Credit answers which suggest that the SDs can be used to look for similarity or differences in variance.
04 Outline one problem of studying internal mental processes like memory ability by conducting experiments such as that described in Question 03 above.  

 Marks for this question: AO3 = 2  

2 marks for a clear, coherent outline of a relevant problem  
1 mark for a weak, muddled or very limited outline  

Possible problems:  

- Direct observation of memory is not possible and must be inferred from the results/behaviour of the participants – this inference could be mistaken.  
- The task given is rarely how normal memory functioning occurs because it is specifically designed to make measurement possible – the researcher therefore collects data that is only related to memory processing under experimental conditions.  

Credit other valid problems.

05 Rita and Holly are identical twins who were separated at birth. When they finally met each other at the age of 35, they were surprised at how different their personalities were. Rita is much more social and out-going than Holly.  

Use your knowledge of genotype and phenotype to explain this difference in their personalities.  

 Marks for this question: AO2 = 4  

<table>
<thead>
<tr>
<th>Level</th>
<th>Marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3–4</td>
<td>Knowledge of genotype and phenotype is clear. Explanation of how these affect personality is clear. The answer is generally coherent with effective use of terminology.</td>
</tr>
<tr>
<td>1</td>
<td>1–2</td>
<td>There is limited/partial knowledge and explanation. Knowledge is clear but the explanation is missing or inaccurate. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.</td>
</tr>
<tr>
<td>0</td>
<td>No relevant content.</td>
<td></td>
</tr>
</tbody>
</table>

Possible Content:  

- Holly and Rita have identical genotype as they are MZ twins.  
- They have the predisposition to develop the same personalities as each other unless another factor(s) intervenes.  
- For them to have developed different personalities over time, this must have been influenced by being in different environments.  
- Their phenotypes – personalities achieved – are different, presumably because Rita was encouraged to be sociable and lively and Holly was not.
06 Outline and evaluate the social learning theory approach. Refer to evidence in your answer.

Marks for this question: AO1 = 6 AO3 = 6

<table>
<thead>
<tr>
<th>Level</th>
<th>Marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>10–12</td>
<td>Knowledge of social learning theory and associated evidence is accurate and generally well detailed. Discussion is mostly effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and/or expansion sometimes lacking.</td>
</tr>
<tr>
<td>3</td>
<td>7–9</td>
<td>Knowledge of social learning theory is evident. Some evidence is included. Discussion is apparent and mostly effective. There are occasional inaccuracies. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately. Lacks focus in places.</td>
</tr>
<tr>
<td>2</td>
<td>4–6</td>
<td>Knowledge of social learning theory is present. Focus is mainly on description. Any discussion is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.</td>
</tr>
<tr>
<td>1</td>
<td>1–3</td>
<td>Knowledge of social learning theory is limited. Discussion is very limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>No relevant content.</td>
</tr>
</tbody>
</table>

Possible content:
- Learning takes place in a social context
- Learning occurs via observation of the behaviour of others and the rewards or punishments received for the behaviour
- Other people act as models and the characteristics of models influence the likelihood of imitation of the behaviour
- Learning and performance are not the same activity. Mediational processes affect production of behaviour reciprocal determinism and the concept of free will
- Relevant research eg Bobo doll study, Bandura
- Concepts of identification and vicarious reinforcement.

Possible discussion
- Use of evidence to support social learning theory
- Benefits of the experimental approach to investigate learning and issues with experimental evidence that might affect the validity of the results and therefore the conclusions drawn
- Focus on human traits of consciousness and rationality which cannot be demonstrated with animal research, addresses the influence of mediational processes on learning – neglected by behaviourists
- Provides explanations that relate to behaviours such as aggression and intellectual development
- Does not pay much attention to the impact of biological, heredity or maturational factors on behaviour, evidence from these areas of research does show they do have an impact.

Credit other relevant information.
Section B
Psychopathology

07 What is meant by ‘statistical infrequency’ as a definition of abnormality? [2 marks]

Marks for this question: AO1 = 2

2 marks for a clear and accurate explanation of the term ‘statistical infrequency’ as a definition of abnormality

1 mark for a weak, muddled or very limited explanation

Content: A person’s trait, thinking or behaviour would be considered to be an indication of abnormality if it was found to be numerically (statistically) rare/uncommon/anomalous

08 Outline two characteristics of obsessive-compulsive disorder. Refer to Gavin in your answer. [4 marks]

Marks for this question: AO1 = 2 AO2 = 2

<table>
<thead>
<tr>
<th>Level</th>
<th>Marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3–4</td>
<td>Outline of characteristics of OCD is clear. Application to the stem is clear. The answer is generally coherent with effective use of terminology.</td>
</tr>
<tr>
<td>1</td>
<td>1–2</td>
<td>There is limited/partial explanation of the characteristics of OCD and application to the stem. Explanation of OCD characteristics is clear but the application is missing or inaccurate OR application is clear but the explanation is missing or inaccurate. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.</td>
</tr>
<tr>
<td>0</td>
<td></td>
<td>No relevant content.</td>
</tr>
</tbody>
</table>

Possible Content:

- A cognitive characteristic would be an irrational belief or persistent recurring thoughts – catastrophic thinking such as: my family is in danger and might get trapped in a house fire’.
- An emotional characteristic would be feeling anxiety or the reduction of anxiety such as: ‘worry about them’ or ‘feeling calm after making sure a fire cannot start’.
- A behavioural characteristic would be performing a repetitive action such as: switching plug sockets six times.

Credit for two characteristics of OCD, if student offers three, credit the best two.
A psychologist has suggested treating Tommy’s fear of birds using systematic desensitisation. Explain how this procedure could be used to help Tommy overcome his phobia.

**Marks for this question: AO2 = 4**

1 mark each for applied description of the following aspects of systematic desensitisation:
- relaxation
- hierarchy development
- gradual exposure

Plus 1 further mark for some elaboration of any of the three aspects

**Content:**
- Tommy would be taught relaxation techniques he could use when he encounters birds as part of the therapy.
- Tommy would devise his hierarchy so it reflects his least to most feared bird situation (for example, small picture of a sparrow, then a small bird through a window…)
- Tommy would then be exposed to birds gradually, ensuring he is relaxed at each stage.

Explain why systematic desensitisation might be more ethical than using flooding to treat Tommy’s phobia.

**Marks for this question: AO3 = 2**

2 marks for a clear and coherent explanation of the benefits of systematic desensitisation over flooding as a treatment for a phobia for a child

1 mark for a very brief, weak or muddled explanation

**Possible points:**
- SD is gradual so the anxiety produced in the treatment is limited whereas in flooding the most feared situation is presented immediately which would be too traumatic for a small child.
- Tommy may not fully understand that consent to flooding would mean immediate exposure to his most feared situation so his consent to systematic desensitisation increases his protection from harm.
Outline and evaluate at least one cognitive approach to explaining depression.

Marks for this question: AO1 = 6 AO3 = 6

<table>
<thead>
<tr>
<th>Level</th>
<th>Marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>10–12</td>
<td>Knowledge of a least one cognitive explanation for depression is accurate and generally well detailed. Discussion is mostly effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and/or expansion sometimes lacking.</td>
</tr>
<tr>
<td>3</td>
<td>7–9</td>
<td>Knowledge of at least one cognitive explanation for depression is evident. Discussion is apparent and mostly effective. There are occasional inaccuracies. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately. Lacks focus in places.</td>
</tr>
<tr>
<td>2</td>
<td>4–6</td>
<td>Knowledge of at least one cognitive explanation for depression is present. Focus is mainly on description. Any discussion is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology used inappropriately on occasions.</td>
</tr>
<tr>
<td>1</td>
<td>1–3</td>
<td>Knowledge of at least one cognitive explanation for depression is limited. Discussion is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>No relevant content.</td>
</tr>
</tbody>
</table>

Possible content:
- Underlying assumption of the cognitive explanation – depression is the result of disturbance in ‘thinking’.
- Beck’s negative triad – childhood negative schemas develop providing a negative framework for viewing events pessimistically. In adulthood these become biases such as overgeneralisation; magnification; selective perception and absolutist thinking.
- The negative triad is where people think consistently negatively about the self, the world and the future.
- Ellis’s ABC model – developed to explain response to negative events – how people react differently to stress and adversity.
- The model provides the sequence of the process: A – the adversity or event to which there is a reaction; B – the belief or explanation about why the situation occurred; C – the consequence – the feelings and behaviour the belief now causes. In essence the external event is ‘blamed’ for the unhappiness being experienced.
- Both models explain depression as a consequence of faulty and negative thinking about events and suggest it can be managed by challenging this faulty thinking.
- Evidence to support either model such as Beck 1976.
Possible evaluation:

- The use of examples to illustrate the negative triad or the ABC model
- The use of evidence to support cognitive explanation(s)
- The development of successful therapies based on cognitive explanations: CBT and/or REBT
- Cognitive explanation(s) do not explain the links between anger and depression well
- Cognitive explanations do not distinguish cause and effect factors
- Cognitive explanations do not deal with the manic phases in bipolar I and II
- Comparison with alternative explanations e.g. biological evidence suggests genetic, neurochemical and neuroanatomical influences a biological predisposition

Credit other relevant information.
Section C
Research Methods

12.1 Use the graph paper below to sketch a display of the data given in Table 2 opposite. You do not need to give your display a title.

Marks for this question: AO2 = 3
3 marks for the following points:

- Axes correctly labelled as Age of participant and Attitude to social care rating
- Scales are suitable
- Points plotted accurately.

12.2 What does the display you have drawn in your answer in Question 12.1 suggest about the relationship between age and attitude to social care issues? Explain your answer.

[2 marks]

Marks for this question: AO2 = 2

2 marks for: there is a positive relationship between age and interest in social care issues/as people get older their interest in social care increases (1) this is because as the values on one co-variable increase, so do the values on the other co-variable (1) OR as age increases so does attitude to social care rating/score.

12.3 Briefly explain how investigator effects might have occurred in this study.

[2 marks]

Marks for this question: AO2 = 2

1 mark for knowledge of an investigator effect – this is when the person collecting the data has knowledge of what the research aim is/traits and that knowledge/those traits affect the data obtained.

1 mark for a brief explanation of how investigator effects might have occurred in this study.

If the researchers believed that older people would be more interested in social care they could have just given scores based on the age of the person.

12.4 Outline how the researchers could have avoided investigator effects having an impact on the study.

[2 marks]

Marks for this question: AO3 = 2

2 marks for explaining how investigator effects could have been avoided in the study. The answer needs to explain what could be done and how that would decrease/eliminate the effect.

Possible content:

- Discussion of separate observation by the two researchers and comparison – inter-rater reliability
- Having ‘blind’ rating of the discussion by someone who is unaware of the aim or research hypothesis
- Filming the discussions so there is a permanent record that can be checked by peer review of the data to confirm the scores/ratings.

Credit other relevant procedures
12.5 Briefly discuss the benefits for the researcher of using both closed and open questions on their questionnaire about attitudes to social care.  

[4 marks]

Marks for this question: AO2 = 4

<table>
<thead>
<tr>
<th>Level</th>
<th>Marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3–4</td>
<td>Explanation of how closed and open questions are beneficial is clear. The answer is generally coherent with effective use of terminology.</td>
</tr>
</tbody>
</table>
| 1     | 1–2   | There is limited/partial reference to the benefit(s) of closed and open questions. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.  
OR answer only refers to either closed or open questions at Level 2. |
| 0     |       | No relevant content. |

Possible points:
- Closed questions would present participants with options for their response so the researchers would be able to collate and display the information collected easily.
- Closed questions make it easy to compare specific response to questions the researchers wanted answered – they can be sure there will be certain information because they have restricted the options to include that information.
- Open questions allow respondents to interpret the question as they wish to and develop their response with detail or depth – so there is lots of information received.
- Open questions allow the researchers to pursue a line of enquiry that they may not have predicted but which comes to light because of a response by an interviewee.

Credit other relevant information.

12.6 Write one question that you think the researchers might have put on their questionnaire. Explain which type of question you have written and why you think this would be a suitable question for this study.  

[3 marks]

Marks for this question: AO2 = 3

- 1 mark for an appropriate open or closed question – requiring information about a social care issue
- 1 mark for correct identification of this as an open or closed type of question
- 1 mark for a suitable explanation for why the choice was appropriate – this could relate to producing a type of data (closed – ease of analysis, open – lots of detail or depth to response/allows respondent to elaborate her/his reasoning for the response given) or it could focus on an issue of social care introduced by the candidate and not in the stem.
12.7 The researchers have obtained both qualitative and quantitative data in the observations and interviews they have conducted.

Identify the qualitative and quantitative data collected in this study. Explain your answer. [4 marks]

Marks for this question: AO1 = 2 AO2 = 2

AO2

1 mark: the responses to the open questions in the interview constitute qualitative data

Plus

1 mark: the attitudes ratings AND/OR the collated responses to the closed questions in the interview constitute quantitative data

AO1

1 mark for an explanation of how the responses to the open questions is qualitative data ie is non-numeric/descriptive/retains detail of actions/thoughts/feelings

Plus

1 mark for an explanation of how the ratings/collated responses to closed questions is quantitative data ie numerical such as a score/behaviour is represented in the form of a score on a scale

12.8 Explain how the researchers should have addressed two ethical issues in the investigation. [4 marks]

Marks for this question: AO3 = 4

2 marks for each explanation of how the chosen ethical issue could be dealt with.

1 mark for a brief muddled explanation.

2 marks for a clear explanation.

Consent – to be part of what is in essence two studies. Participants should be forewarned – a briefing.

Protection from harm – at the end of participation all will have to be fully aware that they were rated for their social care interest and a low score might indicate they are ‘uncaring’. They may wish to withdraw their data.

Right to withdraw – being made aware that they can at any time stop participating and at the end of their participation they can withdraw detail of their behaviour in the research.

The explanation must demonstrate an appreciation that people should be dealt with, with respect and competence.

Credit other relevant ethical issues.
### Assessment Objective Grid

<table>
<thead>
<tr>
<th>Approaches in Biopsychology</th>
<th>AO1</th>
<th>AO2</th>
<th>AO3</th>
<th>Total</th>
</tr>
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<tr>
<td>03</td>
<td></td>
<td>2 RM/Maths</td>
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<tr>
<td>04</td>
<td></td>
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<td>Total</td>
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<table>
<thead>
<tr>
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<td>16</td>
<td>6</td>
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</tbody>
</table>

| Paper Total                 | 22  | 28  | 22  | 72    |

Research methods (RM) = 28 marks  
Maths = 9 marks