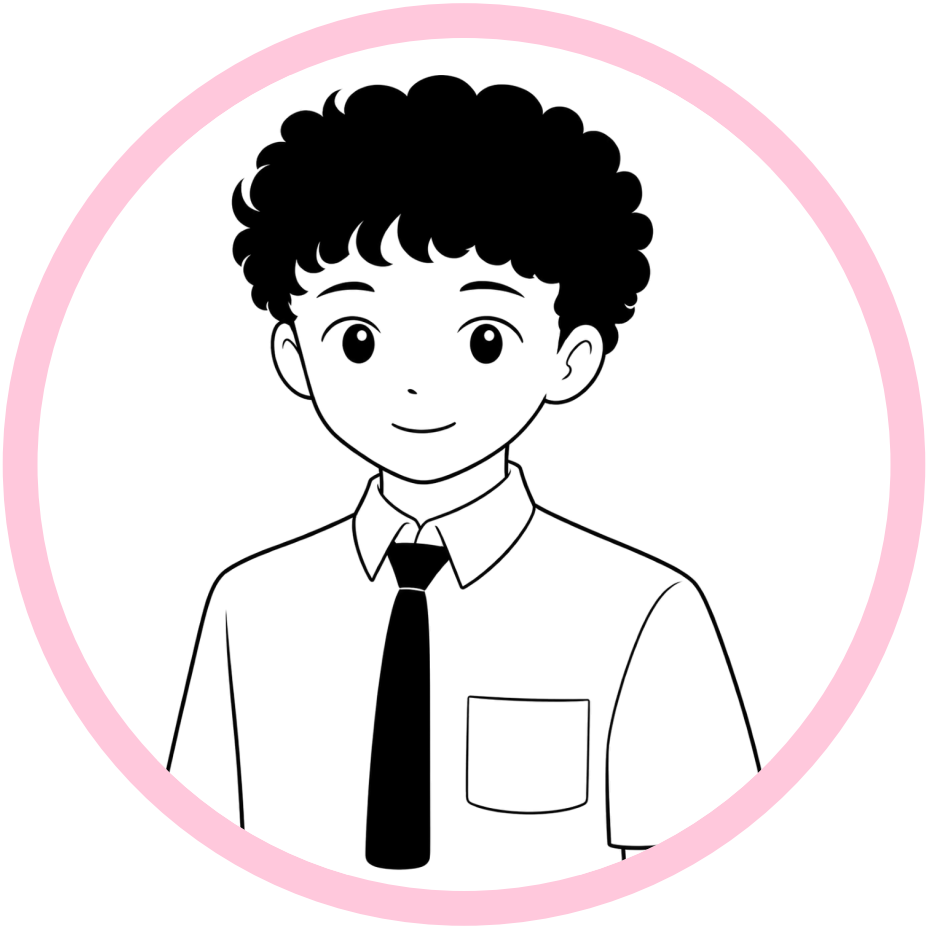
AQA A-LEVEL PSYCHOLOGY · 7182

PSYCHOLOGY



MARK SCHEME

3.2.1 THE COGNITIVE APPROACH

SCORE	PERCENTAGE
/70	%

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Q1.

[AO1 = 1]

C Mental processes are studied directly by making inferences

[1]

Q2.

[AO1 = 4]

2 marks for a clear and coherent explanation why using schema might be useful with some elaboration.

1 mark for a limited / muddled explanation why using schema might be useful.

Possible content:

- schema help us predict what will happen in our world based on our experiences
- schema enable us to process vast amounts of information rapidly
- schema prevent us from becoming overwhelmed by environmental stimuli.

Credit other relevant explanations.

Plus

2 marks for a clear and coherent explanation why using schema might **not** be useful with some elaboration

1 mark for a limited / muddled explanation why using schema might **not** be useful.

Possible content:

- schema can distort our interpretation of sensory information
- schema lead to perceptual errors or inaccurate EWT / memories
- schema can cause biased recall / see what we expect
- negative / faulty schema may have a negative impact on mental health

Credit other relevant explanations.

Note: Definitions of schema in isolation are not creditworthy.

[4]

Q3.

[AO1 = 1]

1 mark for A

Q4.

[AO2 = 2]

2 marks for a clear explanation of inference suitable for a new psychology student: make

assumptions about mental processes that cannot be directly observed/going beyond the immediate research evidence.

1 mark for a limited or muddled explanation of inference

Accept explanations that are embedded in examples.

Q5.

[AO1 = 4 AO3 = 4]

Level	Marks	Description
4	7 – 8	Knowledge of two features of the cognitive approach is accurate with some detail. Explanation of two limitations is effective. The answer is clear and coherent. Specialist terminology is used effectively. Minor detail and/or expansion of argument sometimes lacking.
3	5 – 6	Knowledge of one or two features of the cognitive approach is evident but there are occasional inaccuracies/omissions. There is some effective explanation of at least one limitation. The answer is mostly clear and organised. Specialist terminology is mostly used appropriately.
2	3 – 4	Limited knowledge of at least one feature of the cognitive approach is present. Focus is mainly on description. Any explanation of limitation(s) is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions. **OR** just limitations done well.
1	1 – 2	Knowledge of at least one feature of the cognitive approach is very limited. Explanation of limitation(s) 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. **OR** just limitation(s) answered at Level 2.
	0	No relevant content.

Possible features:

- Behaviour is influenced by thoughts that can be both conscious and non-conscious – internal mental processes.
- Schema are the mental representation of experience and knowledge and understanding.
- Mental processes are information processing and the processing can be compared to that of a computer.
- Models can be used to provide testable theories about mental processing and these can be studied scientifically and inferences made.
- Cognition and biological processes can be integrated leading to cognitive neuroscience as a way forward to understanding human behaviour.
- Methodology - use of controlled experimentation – inference about mental

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processes on the basis of observed behaviour.

Possible Limitations:

- The approach can be seen as mechanical in regarding human thinking as processing like the computer leaving little room for the irrationality seen in emotional behaviours.
- The focus on detail of exactly what can be recalled by participants in controlled environments means an understanding of everyday use of memory, for example, is missing from explanations. This leads to issues of generalisation.
- The process of inference may be a 'leap too far' in explaining thinking.
- Issue of soft determinism and little room for processes other than internal mental events affecting behaviour such as biology.
- Research findings indicate factors other than internal mental events as cause of behaviour.
- Use of self-report as a method of data collection and the subsequent issues of reliability.
- The focus on individual mental processes such as attention, leaves little room for how these mental events work together.

Limitations may overlap, one may be taken as an elaboration of another. Award credit for two limitations to the best advantage of the student.

Credit other relevant limitations.

Q6.

[AO2 = 2]

1 mark for each relevant application as follows:

1 mark for response A: processing is limited capacity (when performing demanding / novel tasks)
1 mark for response B: processing is sequential (when performing demanding / novel tasks).

Credit other relevant applications.

Q7.

(a) **[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.

(b) **[AO3 = 2]**

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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.

Q8.

[AO2 = 2]

1 mark for an explanation of inference: going beyond the immediate evidence to make assumptions about mental processes that cannot be directly observed.

Plus

1 mark for a sound application to the study with clear description about what is being inferred (problem difficulty / more difficult processing) on the basis of what is being measured (time taken to solve the problem in the different conditions). Award **1 mark** only for answers where knowledge of inference and application are only partially clear.

Q9.

[AO3 = 4]

Strength:
1 mark for identification of a strength
Plus
1 mark for explanation/elaboration e.g. why it is a strength of the cognitive approach.

Limitation:
1 mark for identification of a limitation
Plus
1 mark for explanation/elaboration e.g. why it is a limitation of the cognitive approach.

Likely strengths: control/objectivity in research; use of models for ease of understanding; links to neuroscience and consequent applications.

Likely limitations: still requires inferences about cognitive processes; mechanistic approach to understanding human behaviour.

Q10.

[AO1 = 4 AO2 = 2]

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Level	Marks	Description
3	5 – 6	Outline of cognitive neuroscience and description of one practical application is generally accurate with some detail. The answer is clear and coherent. Specialist terminology is used effectively.
2	3 – 4	Outline of cognitive neuroscience and description of one practical application is evident. There are some inaccuracies. There is some appropriate use of specialist terminology.
1	1 – 2	Outline of cognitive neuroscience and/or description of one practical application is limited and lacks detail. There is substantial inaccuracy/muddle. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible content:

- Scientific study of brain/neurological structures, mechanisms, processes, chemistry
- That are responsible for cognitive/mental/thinking processes

Possible applications:

- Use of scanning/imaging techniques eg to locate different types of memory in different areas of the brain leading to treatment for memory problems
- Use of scanning/imaging techniques to study mental processing patients with depression or OCD or in children with autism or dyslexia
- Use of imaging techniques and angiography to study the effects of normal ageing on the brain or to observe the effects of stroke on the brain
- Use of computer simulations/computational modelling to test theories or hypotheses about mental processes such as attention, memory, problem solving etc
- Use of computer modelling to develop voice recognition programmes
- Use of eye-tracking/motion-tracking to study visual word processing and reading

Credit other relevant applications.

Q11.

Marks for this question: AO1 = 6, AO3 = 10

Level	Marks	Description
4	13 – 16	Knowledge is accurate and generally well detailed. Comparison is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of

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		argument sometimes lacking.
3	9 – 12	Knowledge is evident. There are occasional inaccuracies. Comparison is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.
2	5 – 8	Some knowledge is present. Focus is mainly on description. Any comparison is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1 – 4	Knowledge is limited. Comparison 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.
	0	No relevant content.

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

AO1

Marks for knowledge and understanding of key features / assumptions of the cognitive approach. Likely content: thought, both conscious and unconscious can influence behaviour; thought mediates between stimulus and response; information processing approach; mind works similarly to a computer; use of models; mental processes can be scientifically studied; the human mind actively processes information.

AO3

Marks for comparing the cognitive approach with the psychodynamic approach.

Possible comparison points: cognitive – people as conscious logical thinkers vs psychodynamic – focus on unconscious thought (though conscious level is acknowledged); cognitive – stages of intellectual / cognitive development including moral development in early years through to teenage years vs psychodynamic – stages of personality development, also early years through to teenage years; cognitive – information processing approach and little focus on emotions vs psychodynamic – focus on emotional life and childhood experience; cognitive – damage to brain and mental processes as explanation of atypical behaviour vs psychodynamic – repression and unconscious conflict; cognitive – people as rational conscious thinkers vs psychodynamic – irrational; cognitive – explanations involve active processing and an element of free will / soft determinism vs psychodynamic – individual is passive and behaviour is determined. Accept comparisons based on therapies and research methods, application to all topic areas and to all the debates. Credit use of relevant evidence.

Q12.

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Marks for this question: AO1 = 6, AO3 = 10

Level	Marks	Description
4	13 – 16	Knowledge is accurate and generally well detailed. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking.
3	9 – 12	Knowledge is evident. There are occasional inaccuracies. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.
2	5 – 8	Some knowledge is present. Focus is mainly on description. Any Discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1 – 4	Knowledge is limited. Discussion / valuation / application 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.
	0	No relevant content.

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

AO1

Marks for knowledge in detail of features and / or assumptions of the cognitive approach. These might include: the requirement that cognitive processes must be studied if human behaviour is to be understood; mental processes mediate between the stimulus and response; human information processing is analogous to the way a computer works – input, storage and retrieval systems, hardware and software; the use of models to explain internal / mental processes; propose stage-based processing; human behaviour should be studied scientifically.
Credit description of models to illustrate features.

AO3

Marks for evaluation of the strengths and limitations of methods used by cognitive psychologists. Candidates are likely to refer to the use of laboratory-based experiments. Credit evaluation of use of models and evaluation of methods used in cognitive neuroscience.
Likely strengths which might be expanded by discussion: there is a high degree of control over variables which means that a cause and effect relationship can be established; variables are operationalised to make measurements accurate and objective; standardisation of procedures means research can be replicated to enhance reliability; as participants are usually aware they are participating there is a

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measure of ethical treatment; participants are usually human rather than animal research. Credit reference to field experiments and the inclusion of observation as part of the research method in some instances with resulting increased ecological validity. Credit reference to the use of case studies and their impact on theory and the suggestion that these may be more scientific in cognitive psychology than in psychodynamic.
Likely limitations which might be expanded by discussion: artificiality of the situation impacts on ecological validity; ecological validity often affected by narrowness of dependent variables so that sight is lost of behaviour as a whole; use of artificial stimuli – eg nonsense words / ambiguous figures affect generalisability; awareness of participation means people taking part may exhibit demand characteristics which could affect reliability and / or validity of the research. Credit contrast with methods used in other approaches where the relevance to strength or limitation is made clear.
Credit use of evidence to illustrate discussion of strengths and limitations of the research methods used in the cognitive approach.

Q13.

Marks for this question: AO1 = 2, AO2 = 2

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

AO1

One mark for each assumption clarified. Allow one mark for two identified. Likely content: thought acts as meditational processes between stimulus and behavioural response; mental processes can be regarded as information processing; computer analogy / mind operates a similar way to a computer; the use of models to represent mental processes; mental processes can be scientifically studied; the brain affects cognitions and cognitive processes; the findings and methods of cognitive psychology can be applied to other areas of psychology.

AO2

One mark for each application. Accept a wide range of topics.
For ‘thought acts as meditational processes between stimulus and behavioural response’ relevant topics might be: trial and error learning vs. observational learning or insight learning; depression.
For ‘mental processes can be regarded as information processing’ relevant topics might be: memory.
For ‘mental processes can be scientifically studied’ relevant topics might be: stress eg locus of control; memory.
For ‘the brain affects cognitions and cognitive processes’ relevant topics might be forensic psychology.
For applications to other areas of psychology, relevant topics might be: child development eg schemas; social cognition.

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Q1.

This question was answered correctly by just under half of the students. The distractors worked well to distinguish those who understood the cognitive approach as opposed to those who had just learned the definition of the approach, with incorrect answers representing all the alternative choices.

Q2.

This question was reasonably well answered, although students were generally better at explaining why schemas might not be useful, with some good examples drawn from EWT and some on negative self-schema and depression. Unfortunately, the strengths were weaker and often gave little beyond definitions.

Q3.

Most students answered this question correctly. However, some provided more than one answer when the instruction clearly stated ‘Shade one box only’. It is important to remind students to read and follow the instructions for multiple-choice questions.

Q4.

Few students appeared to understand the meaning of inference and thus many were unable to apply this to the stem and gain any marks. Some answers conveyed an understanding of inference but without referring to mental processes. A number of responses were limited as they referred to biology (ie the ‘brain’) rather than cognition (ie the ‘mind’). There were also a number of examples seen where no answer was attempted, suggesting that some students did not have the knowledge to enable them to answer this question.

Q5.

There were some very good answers to this question and students had sound knowledge of features of the cognitive approach. Responses to explaining two limitations of the cognitive approach were less successful, sometimes lacking explanation or even being incorrect. A significant number of responses, for example, seemed to suggest schemas lead to stereotypes and therefore this limits the cognitive approach because stereotyping is a 'bad thing.' Understanding that people are cognitive misers in the way they process information and therefore might stereotype, is a useful piece of information, as such awareness might in fact help us to deal with stereotyping in society. There were also a number of attempts at limitations which were too extreme in their assertion such as, cognitive psychology ignores emotion, ignores biology and ignores culture or only uses experiments. Students need to construct more coherent discussions about apparent weaknesses of approaches and should be more circumspect in the way they present these ideas. Some students misread the question and produced answers that focused on the cognitive approach to depression. These were rarely creditworthy.

Q11.

This question required an outline of the cognitive approach and many students had sufficient knowledge to gain full marks for this part of the question. The second part of the question required a comparison between the cognitive approach and the psychodynamic approach. On such a question, the A02 marks are only accrued for comparative points

identified and discussed. Many students wasted time and effort providing general evaluative points on the cognitive approach, and some even described and evaluated the psychodynamic approach too. Students are urged to read the question carefully and plan their response so that they answer the question set. Deviating from comparison attained no marks and led to irrelevance in the answer. Although there was an attempt by many students to provide some comparison, this was often brief and required elaboration, e.g. simply stating 'the cognitive approach focuses on cognitions whereas the main focus of the psychodynamic approach is on emotion'. This type of essay clearly highlights the need for students to spend time thinking and planning their answer; a significant number of students provided a 'pre-prepared' "describe and discuss the cognitive approach" essay which failed to gain marks beyond the A01 for knowledge.

Q12.

Responses to this question were very weak. Students seem to have a very limited knowledge and understanding of this key approach in psychology and rarely described anything beyond reference to a computer analogy. After the description of the approach, many answers launched into a weak analysis of the strengths and limitations of cognitive psychology, rather than identifying methods used in cognitive psychology and evaluating these. In fact, all relevant methods would have been covered as part of students' preparation for Section C, and it should have been relatively easy for them just to match their knowledge of the cognitive approach with an evaluation of these methods, for example, experimentation, observation, and case studies.

Q13.

In order to gain full marks, students were required to identify two clear assumptions of the cognitive approach. Hence, students who simply stated '...mental processes and schemata...'or '...we behave like a computer...' did not gain the full two marks. Additionally, the assumptions had to be applied to two topics. Such applications were sometimes vague, for example, '... this can be seen in the topic of memory...' without any further elaboration. Some students were unclear about information processing, confusing this assumption with 'mediational processes that lie between stimulus and response'. The assumptions were applied to a range of topics with the most common being depression, memory and face recognition.