



MARKSCHEME

November 2014

PSYCHOLOGY

Higher and Standard Level

Paper 1

*This markscheme is **confidential** and for the exclusive use of examiners in this examination session.*

*It is the property of the International Baccalaureate and must **not** be reproduced or distributed to any other person without the authorization of the IB Assessment Centre.*

SECTION A

Biological level of analysis

1. Explain how genetic inheritance may influence *one* behaviour, with reference to *one* relevant research study. *[8 marks]*

Refer to the paper 1 section A markbands on the next page when awarding marks.

The command term “explain” requires candidates to give a detailed account, including reasons or causes, of how genetic inheritance may influence a specific behaviour, making reference to one study.

Candidates should refer to a single study which demonstrates the role of genetic inheritance on one specific behaviour. Many of these studies may be twin or family studies.

Relevant studies may include, but are not limited to:

- The Minnesota Twin Study of intelligence (Bouchard *et al.*, 1990)
- Christiansen’s (1977) study of criminal behaviour in Danish twins
- Nurnberger and Gershon (1982) on depression
- Kendler *et al.* (1991) on bulimia
- Stunkard *et al.* (1990) on obesity.

Explanations of the role of genetic inheritance may refer to concordance rates, specific research regarding the properties of specific genes, or findings from twin studies.

If a candidate makes reference to research from evolutionary psychology, the focus of the response must be on how genetic inheritance influences the behaviour.

If a candidate explains how genetic inheritance may influence more than one behaviour, credit should be given only to the first behaviour.

If a candidate refers to more than one study, credit should be given only to the first study.

If a candidate only describes an appropriate study without making reference to the influence of genetic inheritance on behaviour, apply the markbands up to a maximum of *[3 marks]*.

If a candidate explains the influence of genetic inheritance without making reference to a study, up to a maximum of *[4 marks]* should be awarded.

Section A markbands

Marks Level descriptor

- 0** The answer does not reach a standard described by the descriptors below.
- 1 to 3** There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
- 4 to 6** The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
- 7 to 8** The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Cognitive level of analysis

2. Outline *two* principles that define the cognitive level of analysis.

[8 marks]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “outline” requires candidates to give a brief account or summary of two principles that define the cognitive level of analysis.

Acceptable principles may include, but are not limited to:

- mental processes can be scientifically investigated
- mental representations guide behaviour
- cognitive processes are influenced by social, cultural and biological factors
- internal processes are important mediators between stimuli and responses.

The principles should represent the cognitive level of analysis at large but examples in the outlines may be drawn from specific areas such as language, perception, attention or memory.

Candidates are likely to use studies or theories to illustrate the principles but this is not required to achieve marks in the higher band.

If a candidate outlines more than two principles, credit should be given only to the first two principles.

If a candidate outlines only one principle, apply the markbands up to a maximum of [4 marks].

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Sociocultural level of analysis

3. Outline social learning theory with reference to *one* relevant study. [8 marks]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “outline” requires candidates to give a brief account or summary of social learning theory with reference to one relevant study.

The main aspects of social learning theory include:

- vicarious learning (reinforcement and punishment)
- imitation of models
- the role of attention, retention, motivation and reproduction.

Relevant studies may include, but are not limited to:

- Bandura’s studies on aggression
- Totten’s (2003) study of observational learning of violent behaviour towards girlfriends
- Eron and Huesmann’s (1986) study of the effects of television violence
- studies dealing with gender role development
- research in sport psychology regarding concepts such as modelling and self-efficacy
- research related to the Sabido method.

If a candidate refers to more than one study, credit should be given only to the first study.

If a candidate only describes an appropriate study without outlining social learning theory, up to a maximum of **[3 marks]** should be awarded.

If a candidate outlines social learning theory without making reference to a relevant study, up to a maximum of **[4 marks]** should be awarded.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Section B assessment criteria

A — Knowledge and comprehension

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer demonstrates limited knowledge and understanding that is of marginal relevance to the question. Little or no psychological research is used in the response.
4 to 6	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
7 to 9	The answer demonstrates detailed, accurate knowledge and understanding relevant to the question, and uses relevant psychological research effectively in support of the response.

B — Evidence of critical thinking: application, analysis, synthesis, evaluation

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
4 to 6	The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.
7 to 9	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

C — Organization

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 2	The answer is organized or focused on the question. However, this is not sustained throughout the response.
3 to 4	The answer is well organized, well developed and focused on the question.

SECTION B

4. **Discuss how *and* why *one* particular research method is used at the biological level of analysis.** **[22 marks]**

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review of how and why one particular research method is used at the biological level of analysis. Although a discussion of both *how* and *why* is required, it does not have to be evenly balanced to gain high marks.

Research methods used in the biological level of analysis could include experiments, case studies, observations and correlational studies. The use of technology to investigate biological factors, for example, brain imaging, can also be accepted as a research method.

Although examples of animal research may be discussed, the use of animals in and of itself is not a research method. Responses should focus on the method used in the study of the animals’ behaviour.

Similarly, if candidates discuss twin studies, the focus should be on the correlational nature of the studies.

Discussion about *how* the method is used might refer to key features of the method as well as how the method was used in specific research. For example, experimental studies may identify the sampling and allocation procedures, the independent and dependent variables, and the way in which extraneous variables were controlled.

Discussion about *why* the method is used might refer to the appropriateness of the method, issues of validity and reliability, sample choice and size, ease and cost of the procedure, and the generalizability of findings. Candidates may address the strengths (and limitations) of the method as well as why it reflects the principles of the biological level of analysis, *ie* candidates could make clear how the selected research methods underpin one or more principles of the level of analysis.

If a candidate discusses more than one research method, credit should be given only to the first discussion.

If a candidate addresses only the “how” or only the “why”, the response should be awarded up to a maximum of **[6 marks]** for criterion A, knowledge and comprehension, up to a maximum of **[6 marks]** for criterion B, critical thinking, and up to **[2 marks]** for criterion C, organization.

5. **Discuss how cognitive and biological factors interact in emotion.** [22 marks]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review of the interaction of cognitive and biological factors in emotion.

The **interaction** is the focus of the question, and a conclusion about this should be clearly made by examining relevant theories and associated studies. Candidates may discuss bi-directionality but they do not have to in order to be awarded full marks.

Relevant theories and studies include, but are not limited to:

- Two-factor theory (Schacter and Singer, 1962)
- Dutton and Aron’s “suspension bridge” study (1974)
- LeDoux’s model of biological pathways (1999)
- Lazarus’s theory of appraisal (1982)
- Speisman *et al.*’s study on appraisal and emotional arousal (1964).

Candidates may discuss a small number of cognitive and biological factors that interact in emotion in order to demonstrate depth of knowledge, or a larger number of cognitive and biological factors in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate discusses only cognitive factors or only biological factors, the response should be awarded up to a maximum of [4 marks] for criterion A, knowledge and comprehension, up to a maximum of [3 marks] for criterion B, critical thinking, and up to a maximum of [2 marks] for criterion C, organization.

If a candidate discusses both cognitive factors and biological factors but does not explicitly discuss **interaction** between cognitive and biological factors, the response should be awarded up to a maximum of [6 marks] for criterion A, knowledge and comprehension, up to a maximum of [6 marks] for criterion B, critical thinking, and up to a maximum of [2 marks] for criterion C, organization.

6. Evaluate research (theories and/or studies) on conformity to group norms. [22 marks]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal of the strengths and limitations of research on conformity. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Relevant theories may include, but are not limited to:

- informational/normative social influence theory
- social comparison theory
- bystander effect
- groupthink.

Relevant studies may include, but are not limited to:

- Sherif (1935) testing conformity with autokinetic effect illusion
- Asch (1951, 1952, 1956) testing conformity under unambiguous conditions
- Crutchfield (1955) on the influence of intellectual competence and personality
- Moscovici *et al.* (1969, 1976, 1985) on minority influence
- Kagitcibasi’s (1984) study on cultural norms and conformity
- Berry’s (1967) study on the cultural differences in conformity.

Evaluation may address issues such as:

- methodological, cultural, ethical and gender considerations
- empirical support
- applications of the theory and/or empirical findings
- contrary explanations or findings.

If research addressing obedience, rather than conformity, is discussed, no marks should be awarded for this. No marks should be awarded for a discussion of the Stanford Prison Study unless it clearly addresses the influence of societal roles on conformity.

Candidates may evaluate a small number of theories and/or studies in order to demonstrate depth of knowledge, or may evaluate a larger number of theories and/or studies in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate evaluates only one theory/study, the response should be awarded up to a maximum of **[5 marks]** for criterion A, knowledge and comprehension, up to a maximum of **[4 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization.

If a candidate discusses only strengths or only limitations, the response should be awarded up to a maximum of **[5 marks]** for criterion B, critical thinking, and up to a maximum of **[2 marks]** for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.
