

# Markscheme

May 2016

Psychology

Higher level and standard level

Paper 1

9 pages

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## Section A

### Biological level of analysis

1. Describe the function of **one** hormone in human behaviour.

[8]

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

The command term “describe” requires candidates to give a detailed account of the function of one hormone in human behaviour.

A hormone is defined as a chemical messenger of the endocrine system and is transported by blood to distal target cells. Although hormones may act as neurotransmitters by activating receptor sites within the synapse, it is the origin of the chemical that classifies it as a hormone. Hormones include:

- adrenaline/epinephrine (McGaugh and Cahill, 1995)
- estrogen (Sherwin, 1994)
- glucocorticoids/cortisol (Newcomer, 1999)
- melatonin (Rosenthal, 1987)
- neuropeptide Y (Morgan *et al.*, 2000)
- oxytocin (Baumgartner, 2008)
- testosterone (Booth, 1998).

Any aspect of human behaviour (*eg* aggression, depression, stress, sexual interest) is acceptable as long as the response focuses on how the hormone influences the particular behaviour.

Responses that address the influence of neurotransmitters such as dopamine, serotonin, GABA and acetylcholine should not be awarded marks.

If a candidate describes a study using animals but does not explicitly link the study to human behaviour, up to a maximum of [3] should be awarded.

If a candidate describes the function of more than one hormone, credit should be given only to the description of the first hormone.

### 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. Describe **one** research study related to schema theory.

[8]

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

The command term “describe” requires candidates to give a detailed account of a study related to schema theory. The description may include the aim, procedure, results and findings.

Examples of relevant studies include, but are not limited to:

- Loftus and Palmer (1974) on schema processing as a consequence of leading questions
- Anderson and Pichert’s (1978) study on the effect of schema processing on memory encoding and retrieval
- Wynn and Logie’s (1998) study using real-life experiences in schema processing
- Brewer and Treyen’s (1981) “office schema” study
- Piaget’s studies on schema during child development
- studies on gender schemas (for example, Martin *et al.*, 1995; Bem, 1999)
- Bartlett’s (1932) seminal study “War of the Ghosts”
- Darley and Gross’s (1983) experiment on role of schemas in social cognition.

If a candidate describes schema theory without making reference to a relevant study, apply the markbands up to a maximum of [3].

If a candidate describes a study that is not relevant to schema theory, [0] should be awarded.

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

## 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. Explain the formation of stereotypes.

[8]

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

The command term “explain” requires candidates to give a detailed account including reasons or causes of the formation of stereotypes.

Research explaining the formation of stereotypes may include but are not limited to:

- Campbell’s theory of gatekeepers and the grain of truth hypothesis
- Hamilton and Gifford’s illusory correlation theory
- the role of conditioning (Staats and Staats)
- stereotyping as a natural cognitive process (Brislin)
- conformity to dominant social representations (Rogers and Frantz)
- social identity theory (Tajfel and Turner)

Candidates may explain the formation of stereotypes by using one theory/study in order to demonstrate depth of knowledge, or may use more than one theory/study in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Responses that focus on the effect of stereotyping rather than the formation of stereotyping may be awarded up to a maximum of [3], as the knowledge is of marginal relevance to the question.

### 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**

<b>Marks</b>	<b>Level descriptor</b>
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**

<b>Marks</b>	<b>Level descriptor</b>
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**

<b>Marks</b>	<b>Level descriptor</b>
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 **two or more** ethical considerations related to research studies at the biological level of analysis. [22]

*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 ethical considerations related to research studies at the biological level of analysis.

Candidates should refer to appropriate research carried out at the biological level of analysis. When addressing ethical considerations, it is not necessary to refer to a study that violates these standards; the study could have met ethical standards.

A discussion of ethical considerations may include, but is not limited to:

- obtaining informed consent
- avoiding harm or suffering of participants
- cost–benefit analysis in determining ethics of study
- how the development of technology has improved ethical standards of research
- the use of animals as subjects
- the use of deception in research – for example, placebo testing
- maintaining anonymity
- the need for debriefing.

Examples must be focused on biological aspects of the research.

Candidates may discuss two ethical considerations in order to demonstrate depth of knowledge, or may discuss a larger number of ethical considerations in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate discusses only one ethical consideration, the response should be awarded up to a maximum of [5] for criterion A, knowledge and comprehension, up to a maximum of [4] for criterion B, critical thinking, and up to a maximum of [2] for criterion C, organization.

If a candidate describes relevant research but ethical considerations are not discussed, apply the markbands up to a maximum of [3] for criterion A, knowledge and understanding, [0] for criterion B, critical thinking and [2] for criterion C, organization.

If a candidate addresses ethical considerations but does not refer to appropriate research, apply the markbands up to a maximum of [3] for criterion A, knowledge and understanding, [3] for criterion B, critical thinking and [2] for criterion C, organization.

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

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

The command term “discuss” requires candidates to offer a considered review, supported by appropriate evidence, of the ways in which cognitive and biological factors interact in emotion. The focus of the response must be on the interaction between the cognitive and physiological factors.

Examples of appropriate theories and studies include, but are not limited to:

- Schachter and Singer’s (1962) two-factor theory, which proposes that physiological arousal and cognition are the central elements in emotional experience
- Dutton and Aron’s (1974) study on misattribution of arousal on emotion
- Lazarus’s (1975) theory that the experience of physiological arousal (stress) is not only physiological, but very dependent also on the cognitive appraisal of situations
- LeDoux’s (1999) model of two different biological pathways, which explains how emotional stimuli are processed in different parts of the brain depending on the degree of cognitive evaluation involved, especially in relation to fear and anxiety
- Speisman *et al.*’s (1964) experimental study that demonstrated how biological and cognitive factors interact in emotion.

Discussion may include, but is not limited to:

- methodological considerations
- the issue of reductionism
- supporting and contradicting evidence
- ethical considerations
- application of empirical findings.

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]** for criterion A, knowledge and comprehension, up to a maximum of **[3]** for criterion B, critical thinking, and up to a maximum of **[2]** for criterion C, organization.



6. Discuss **two** errors in attribution.

[22]

*The command term “discuss” requires candidates to offer a considered and balanced review of two errors in attribution.*

Appropriate attribution errors may include but are not limited to:

- fundamental attribution error
- defensive attribution bias
- actor-observer bias
- illusory correlation
- self-serving bias
- modesty bias
- in-group bias
- the halo effect.

Discussion may address issues such as, but not limited to:

- the context in which these errors appear
- the reasons for their occurrence
- the cultural differences in the expression of these errors
- their empirical support
- their capacity in explaining human behaviour.

Responses may refer to studies such as, but not limited to:

- Ross *et al.* (1977) on the fundamental attribution error
- Jellison and Green (1981) on the cultural differences in the fundamental attribution error
- Johnson *et al.* (1964), on the self-serving bias
- Kashima and Triandis (1986) on modesty bias
- Nisbett *et al.* (1973) on the actor–observer bias
- Smith and Bond (1998) on the cultural differences in the actor-observer bias
- Walster (1966) on the defensive attribution bias.

If a candidate discusses more than two errors in attribution, credit should be given only to the first two errors. Candidates may address other errors in attribution and be awarded marks for these as long as they are clearly used to clarify the discussion of the two main errors addressed in the response.

If a candidate discusses only one error in attribution, the response should be awarded up to a maximum of **[5]** for criterion A, knowledge and comprehension, up to a maximum of **[4]** for criterion B, critical thinking, and up to a maximum of **[2]** for criterion C, organization.