

Markscheme

November 2023

Psychology

Higher and Standard level

Paper 2

© International Baccalaureate Organization 2023

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organisation du Baccalauréat International 2023

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organización del Bachillerato Internacional, 2023

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

Paper 2 assessment criteria

Criterion A — Focus on the question

[2]

To understand the requirements of the question students must identify the problem or issue being raised by the question. Students may simply identify the problem by restating the question or breaking down the question. Students who go beyond this by **explaining** the problem are showing that they understand the issues or problems.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1	Identifies the problem/issue raised in the question.
2	Explains the problem/issue raised in the question.

Criterion B — Knowledge and understanding

[6]

This criterion rewards students for demonstrating their knowledge and understanding of specific areas of psychology. It is important to credit **relevant** knowledge and understanding that is **targeted** at addressing the question and explained in sufficient detail.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1 – 2	The response demonstrates limited relevant knowledge and understanding. Psychological terminology is used but with errors that hamper understanding.
3 – 4	The response demonstrates relevant knowledge and understanding but lacks detail. Psychological terminology is used but with errors that do not hamper understanding.
5 – 6	The response demonstrates relevant, detailed knowledge and understanding. Psychological terminology is used appropriately.

Criterion C — Use of research to support answer
[6]

Psychology is evidence based so it is expected that students will use their knowledge of research to support their argument. There is no prescription as to which or how many pieces of research are appropriate for their response. As such it becomes important that the research selected is **relevant** and useful in **supporting** the response. One piece of research that makes the points relevant to the answer is better than several pieces that repeat the same point over and over.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1 – 2	Limited relevant psychological research is used in the response. Research selected serves to repeat points already made.
3 – 4	Relevant psychological research is used in support of the response and is partly explained. Research selected partially develops the argument.
5 – 6	Relevant psychological research is used in support of the response and is thoroughly explained. Research selected is effectively used to develop the argument.

Criterion D — Critical thinking

[6]

This criterion credits students who demonstrate an inquiring and reflective attitude to their understanding of psychology. There are a number of areas where students may demonstrate critical thinking about the knowledge and understanding used in their responses and the research used to support that knowledge and understanding. The areas of critical thinking are:

- research design and methodologies
- triangulation
- assumptions and biases
- contradictory evidence or alternative theories or explanations
- areas of uncertainty.

These areas are not hierarchical and not all areas will be relevant in a response. In addition, students could demonstrate a very limited critique of methodologies, for example, and a well-developed evaluation of areas of uncertainty in the same response. As a result a holistic judgement of their achievement in this criterion should be made when awarding marks.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1 – 2	There is limited critical thinking and the response is mainly descriptive. Evaluation or discussion, if present, is superficial.
3 – 4	The response contains critical thinking, but lacks development. Evaluation or discussion of most relevant areas is attempted but is not developed.
5 – 6	The response consistently demonstrates well-developed critical thinking. Evaluation or discussion of relevant areas is consistently well developed.

Criterion E — Clarity and organization

[2]

This criterion credits students for presenting their response in a clear and organized manner. A good response would require no re-reading to understand the points made or the train of thought underpinning the argument.

Marks	Level descriptor
0	Does not reach the standard described by the descriptors below.
1	The answer demonstrates some organization and clarity, but this is not sustained throughout the response.
2	The answer demonstrates organization and clarity throughout the response.

Abnormal psychology

1. Discuss validity **and/or** reliability of diagnosis. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review that addresses various aspects of validity and/or reliability of diagnosis.

Relevant classification systems in the discussion of validity and reliability of diagnosis include, but are not limited to:

- Diagnostic Statistical Manual (DSM)
- Chinese Classification of Mental Disorders (CCMD)
- International Classification of Diseases (ICD).

Examples of research that could be used include, but are not limited to:

- Nicholls *et al.*'s (2000) studies of inter-rater reliability
- Seeman's (2007) literature review on the reliability of diagnosis
- Wakefield *et al.*'s (2007) study on the validity of diagnosis
- Silverman *et al.*'s (2001) study on test-retest of anxiety symptoms and diagnosis
- Rosenhan's studies of diagnostic validity.

Discussion may include, but is not limited to:

- methodological difficulties of conducting research on validity and/or reliability of diagnosis
- cultural, gender and/or ethical considerations related to research into validity and/or reliability of diagnosis
- biases related to diagnosis
- how the findings of the research have been interpreted and applied
- implications of the findings.

Candidates may address validity or reliability in diagnosis to demonstrate depth of knowledge, or may address both to demonstrate breadth of knowledge. Both approaches are acceptable.

Validity and/or reliability must be considered in context of diagnosis not treatment. However, relevant discussion of implications for treatment is creditworthy.

Findings of the study/studies need to be used to assess the extent to which diagnosis is valid and/or reliable. If studies are presented in a vague and general manner which does not support the response then the response should be awarded up to a maximum of **[2]** for criterion C: use of research to support answer.

2. Contrast the biological approach and the sociocultural approach to understanding the etiology of abnormal psychology. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “contrast” requires candidates to give an account of the differences between the biological approach and the sociocultural approach to understanding the etiology of abnormal psychology, referring to both of them throughout.

Relevant studies may include but are not limited to:

- Kendler et al.’s (1991) study on genetic factors and bulimia nervosa
- Strober’s (2000) study on genetic factors and bulimia nervosa
- Sanders and Bazalgette’s (1993) study on media and body image
- Sharen and Sundar’s (2015) study on eating disorders in women
- Caspi’s (2003) study on genetic factors and stressful life events on depression
- Delgado and Moreno’s (2000) study on neurotransmitters and depression
- Marsala’s (1979) study on cultural conceptions of mental health
- Kleinman’s (1982) study on culture and depression
- Brown and Harris’s (1978) study on social origins of depression in women.

Critical discussion may include, but is not limited to:

- methodological and ethical considerations related to the research into the biological approach and sociocultural approach to understanding etiology
- the issue of reductionism versus holism
- how the findings of research have been interpreted and applied
- the accuracy and clarity of the concepts
- assumptions and biases
- areas of uncertainty (including research methods used and data uncertainties)
- supporting and/or contradictory evidence.

If the candidate provides only an implicit contrast, the response should be awarded up to a maximum of **[2]** for criterion D: critical thinking. All remaining criteria should be awarded marks according to the best fit approach.

If the candidate provides only a discussion of one approach to understanding the etiology of abnormal psychology, the response should be awarded up to a maximum of **[3]** for criterion B and. All remaining criteria should be awarded marks according to the best fit approach.

3. Discuss the role of culture in the treatment of **one or more** disorders [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of the role of culture in the treatment of one or more disorders.

Relevant studies may include but are not limited to:

- Castillo’s (1997) study on a client-centred approach in treatment
- Sue and Zane’s (2009) study on the role of culture and cultural techniques in psychotherapy
- Marsala’s (2012) study on cultural conceptions of mental health and therapy
- Nicholl and Thompson’s (2004) study on psychological treatment of post-traumatic stress disorder (PTSD) in adult refugees
- Sharen and Sundar’s (2015) study on eating disorders in women.

Discussion points related to culture and treatment may include but are not limited to:

- culture-bound disorders
- accessibility of treatment
- interpretation of the symptoms
- cultural norms
- gender differences within different cultures
- different cultural approaches to treatment
- etic versus emic approaches to treatment
- cultural acceptance of treatment.

Candidates may address one disorder to demonstrate depth of knowledge, or may address more than one disorder to demonstrate breadth of knowledge. Both approaches are acceptable.

Developmental psychology

4. Discuss **one or more** factors that influence the development of resilience. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of factors that influence the development of resilience.

Relevant risk/protective factors may include, but are not limited to:

- connections to competent and caring adults in the family and community
- cognitive skills (such as intelligence and problem-solving)
- self-regulation skills
- positive views of self
- motivation to be effective in the environment
- genetic influence.

Relevant studies may include, but are not limited to:

- Masten and Coatsworth’s (1998); Pettit et al.’s (1997) studies on positive relationships of at least one supportive parent or caregiver
- McRae et al.’s (2012) study on the ability to monitor and assess negative thoughts and replace them with more positive ones
- Karreman and Vingerhoets’s (2012) study on the role of attachment style on resilience
- Ozbay et al.’s (2008) study on the link between seeking social support and resilience
- Leontopoulou’s (2010); Southwick et al.’s (2005) studies on how prosocial behaviour and altruism are associated with resilience
- Russo et al.’s (2012); Feder et al.’s (2009) studies on a range of human genes linked to resilient phenotypes
- Koluchova’s study (1972).

Critical discussion may include but is not limited to:

- variable-focused approach versus person-focused approach in the study of resilience
- implications for promoting resilience in child rearing
- possible gender difference in emotional regulation/cognitive reappraisal
- methodological and ethical considerations
- alternative factors and/or explanations.

Candidates may offer content concerning negative factors influencing the development of resilience - e.g. the impact of poverty, malnutrition or abuse on further development and argue that this has a negative impact on resilience. This approach is acceptable as long as it is clearly linked to the development of resilience.

Candidates may address one factor to demonstrate depth of knowledge, or may address more than one factor to demonstrate breadth of knowledge. Both approaches are acceptable.

5. Discuss the role of attachment in development. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of the role of attachment in development. Candidates may address the role of attachment in childhood and/or in any later stage of life.

Relevant research may include, but is not limited to:

- Bowlby’s research (various dates) on how maternal deprivation can affect an individual
- Ainsworth *et al.*’s (1978) studies showing how different types of attachment influence a child’s attachment pattern
- Van Ijzendoorn and Kroonenberg’s (1988) study on how cross-cultural patterns of attachment influence development
- Pratt and Norris (1994) – positive attachment in early relationships leads to positive reports on current social relationships
- Rossi and Rossi (1990) – people who grew up in cohesive families tended to establish positive relationships with their own partners.

Discussion may include, but is not limited to:

- cultural considerations
- the role of deprivation in attachment
- short-term versus long-term effects in attachment
- methodological and ethical considerations related to the research into attachment.

Responses referring to research with animals, such as Harlow’s studies with rhesus monkeys, are relevant but must be linked to attachment and development. Relevance of such studies for human development will be reflected in discussion under criterion D.

6. To what extent is development as a learner influenced by sociocultural factors? [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “to what extent” requires candidates to consider the sociocultural factors contributing to development as a learner.

Relevant studies may include, but are not limited to:

- Immordino-Yang et al.’s (2019) study on social-emotional factors in brain development (Nurturing Nature)
- McEwen et al.’s (2012) study on how the social environment affects cognitive development
- Giedd’s (2004) study on structural magnetic resonance imaging of the adolescent brain
- Becht et al.’s (2021) study on individual differences in social brain development and friendship quality
- Otero’s (1996) study on poverty, cultural disadvantage and brain development of Mexican pre-school children
- Jernigan’s (2013) study on postnatal brain development
- Kraus et al.’s (2012) study on cognitive factors and auditory working memory
- Reinicke’s (2006) study on Danish fathers and children’s cognitive development
- Research testing Vygotsky’s theory.

Critical discussion may include, but is not limited to:

- alternative theories/explanations (Piaget, brain development theory)
- methodological and ethical considerations
- how the findings of research have been interpreted and applied
- implications of the findings
- the accuracy and clarity of the concepts
- assumptions and biases
- areas of uncertainty
- supporting and/or contradictory evidence
- practical applications, such as in education and parenting.

Candidates may discuss a small number of factors that influence a learner in order to demonstrate depth of knowledge or may consider a larger number of factors in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Health psychology

7. To what extent do dispositional factors and/or health beliefs affect health? [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “to what extent” requires candidates to consider the influence that dispositional factors and/or health beliefs have on health.

Theoretical content may include but not limited to:

- Biopsychosocial model
- Health belief model
- Theory of planned behaviour

Relevant research may include, but is not limited to:

- Reed’s (1999) study relating to pessimism and HIV-related symptoms
- Kearney *et al.*’s (2006) study of stress and the immune system
- Weinberger *et al.*’s (1981) study on health beliefs and smoking behaviour
- Polivy’s (2001) false hope theory regarding dietary goals and optimism
- Gatchel’s (2017) study on fear avoidance belief and chronic pain
- Chapin’s (2010) study on the role of optimistic bias in adolescent risky sexual practices
- Festinger’s theory of cognitive dissonance in relation to health-related behaviour
- optimism bias in relation to health behaviour.

It is appropriate and useful for candidates to address other relevant factors in order to respond to the command term “to what extent”.

Candidates could choose to discuss the extent to which dispositional factors or health beliefs affect one, or more than one health-related phenomena. Both approaches are equally acceptable.

Candidates may address a small number of dispositional factors and/or health beliefs in order to demonstrate depth of knowledge, or may address a larger number of dispositional factors and/or health beliefs in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

8. Discuss **one or more** ethical considerations in research related to health problems. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of ethical considerations in research related to health problems.

Ethical considerations may include, but are not limited to:

- protection of participants
- issues of consent/assent
- debriefing
- right to withdraw from a study
- use of deception
- confidentiality
- anonymity.

Relevant studies may include, but are not limited to:

- Speisman et al.’s (1964) study on cognitive appraisal and stress (difficulty in withdrawing, deception, undue stress and harm)
- Cohen’s study on stress and illness (deception, right to withdraw, undue stress and harm)
- Koch et al.’s (2008) study on stress and obesity (informed consent, research on minors)
- Crum et al.’s (2011) study on nutrient value (undue stress and harm, deception)
- Joseph’s (2015) study on consumption of fast food (informed consent)

Critical discussion may include, but is not limited to:

- the considerations of conducting research in a different culture
- why deception is used
- the difficulties of ensuring confidentiality
- the role of informed consent
- decisions as to why certain ethical guidelines were/were not followed
- changes over time in adherence to ethical standards/guidelines.

Candidates may address one ethical consideration to demonstrate depth of knowledge or may address more than one ethical consideration to demonstrate breadth of knowledge. Both approaches are equally acceptable.

While the response may include some description of studies, the main focus of the response should be on the ethical considerations. If a candidate describes and discusses studies but does not focus on ethical considerations the response should be awarded up to a maximum of **[2]** for criterion D. All remaining criteria should be awarded marks according to the best fit approach.

If a candidate solely focuses on ethical issues in research related to mental health issues with no explicit link to health problems the response should be awarded up to a maximum of **[2]** for criterion B. All remaining criteria should be awarded marks according to the best fit approach.

9. Discuss the effectiveness of **one or more** health promotion programmes. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to make a considered review of the effectiveness of health promotion programmes. The effectiveness relates to the success rate of any health promotion programme.

Health promotion programmes are an attempt to promote health behaviour. Health promotion programmes are those initiatives designed to assist people in gaining control over and improving their own health. These may be public or a government programmes, or may be privately sponsored. In addition, these programmes may be developed on an individual, local, national, or international level.

Examples of health promotion programmes may include, but are not limited to:

- food labelling programmes
- stress reduction programmes such as MBSR or yoga
- health education campaigns such as the TRUTH anti-tobacco campaign
- NHS’s ‘Healthy Child Programme’; keeping children healthy and safe (UK)
- public health campaigns designed to change beliefs and attitudes
- NHS Diabetes Prevention Programme (UK)
- taxes and/or subsidies upon products such as sugar, tobacco or alcohol
- National Tobacco Campaign (Australia).

Relevant studies may include, but are not limited to:

- Peckmann and Reibling’s (2006) study of the effectiveness of fear campaigns
- Yee et al.’s (2006) study of effectiveness of strategies to change behaviours related to obesity
- Sly et al.’s (2002) survey on community based anti-smoking promotion among teens
- Holm’s (2002) survey on the efficiency of health campaigns
- Schum and Gould’s (2007) study of why health campaigns are effective
- Morris and Wilson (2005) ‘Investigating smoking behaviours and attitudes of nurses and nursing assistants using the Health Belief Model’
- Prochaska and Di Clemente’s (1983) ‘Longitudinal research on the effectiveness of the Integrative Model of change for smoking behaviour’
- Marlatt and Gordon’s (1985) ‘Relapse prevention: maintenance strategies in the treatment of addictive Behaviors’
- Huhman et al.’s (2007) evaluation of a national physical activity intervention for children: VERB campaign.

Critical discussion may include, but is not limited to:

- methodological and ethical considerations related to the research into the effectiveness of health promotion programmes
- how the findings of research have been interpreted and applied
- implications of the findings
- the accuracy and clarity of the concepts (that is, health promotion programmes)
- the productivity of the theory in generating psychological research
- assumptions and biases
- areas of uncertainty
- supporting and/or contradictory evidence
- alternative theories/explanations
- comparing and contrasting different health promotion programmes

Candidates may discuss one health promotion programme in order to demonstrate depth of knowledge, or may discuss a larger number of health promotion programmes in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate evaluates health promotion programmes in general with no reference to their effectiveness the response should be awarded up to a maximum of **[2]** for criterion D. All remaining criteria should be awarded marks according to the best fit approach.

Psychology of human relationships

10. Discuss the role of communication in personal relationships. [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of the role of communication in personal relationships.

Communication plays a relevant role at all stages of the development of personal relationships (formation, maintenance, and dissolution). Examples of theories and models explaining the role of communication in relationships may include, but are not limited to: social penetration theory, approaches based on the concept of attributional styles and approaches based on the concept of patterns of accommodation. Some aspects of similarity attraction theory such as beliefs, values and attitudes are conveyed by communication.

Candidates may address specific types of personal relationships (eg romantic, peer, parent–adolescent) or personal relationships in general. Both approaches are equally acceptable.

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

- Fincham’s (2004) study of the role of communication in marital satisfaction
- Gottman and Levenson’s (1986) study on the role of communication of emotions in relationships
- Burgoon *et al.*’s (2000) study of the use of mindfulness and interpersonal communication
- Ying *et al.*’s (2015) study on parent–adolescent communication to build trust
- Levenson and Gottman’s (1983) study on the relationship between marital dissatisfaction and negative affect
- Tannen’s work regarding male/female communication.

Critical discussion may include, but is not limited to:

- methodological and ethical considerations in relation to the role of communication in personal relationships
- how the findings of research have been interpreted and applied
- implications of the findings
- assumptions and biases in research related to the role of communication in personal relationships
- areas of uncertainty
- alternative theories/explanations.

Candidates may discuss a small number of factors that explain the role of communication in relationships in order to demonstrate depth of knowledge or may consider a larger number of factors in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

11. Evaluate *one or more* studies related to prejudice and/or discrimination. [22]

Refer to the Paper 2 assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal of one or more studies related to prejudice and/or discrimination. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Candidates may evaluate studies that attempt to explain prejudice, discrimination, or both.

Candidates may evaluate studies focusing on any aspect of prejudice and/or discrimination including the origins, development, effects of and/or the effectiveness of efforts to reduce prejudice and/or discrimination.

Relevant studies include, but are not limited to:

- Nosek, Banaji and Greenwald (2007), on implicit cognition and schema processing in relation to prejudice
- Harris and Fiske (2005), on the possible biological factors involved in prejudice and discrimination against the outgroup
- Darley and Gross (1983), on the possible role of social cognition in estimations of another person's success
- Fein and Spencer's (1997) study on prejudice as self-image maintenance
- Sherif's (1961) Robbers Cave study investigating “realistic conflict theory”
- Tajfel's (1970) experiments on intergroup discrimination based on the “minimal group paradigm”
- Reynolds and Klik (2016) on new developments in prejudice reduction from its neural basis and impact on well-being.

Evaluation of the selected studies may include but is not limited to:

- methodological and ethical considerations
- cultural and gender considerations
- contrary findings
- the applications of the empirical findings
- how the findings of research have been interpreted
- implications of the findings.

If the candidate addresses only strengths or only limitations, the response should be awarded up to a maximum of **[3]** for criterion D: critical thinking. All remaining criteria should be awarded marks according to the best fit approach.

Candidates may evaluate one study in order to demonstrate depth of knowledge, or may evaluate a greater number of studies in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

In questions that ask for evaluation of studies, in criterion A we assess to what extent is the response focused on the question. Responses that are generic, lack a focus on the specific question and seem as pre-prepared essays of relevance to the general topic (but not to evaluation of one or more studies) should be awarded **[0]** for this criterion. If the response identifies which studies will be evaluated but there is also extra information that is not relevant or necessary for the specific question then **[1]** should be awarded. Responses that are clearly focused on evaluating one or more studies should be awarded **[2]**.

Marks awarded for criterion B should refer to definitions of terms and concepts. Overall this could include some knowledge of topic but more specifically knowledge and understanding related to research methods and ethics of chosen studies.

Marks for criterion B should be awarded as follows:

- 1–2 General knowledge of topic (prejudice and/or discrimination)
- 3–4 Knowledge of general research terms and concepts is provided but lacks detail.
Some minor errors might be present
- 5–6 Relevant knowledge of specific research methods material is utilized and concepts are defined within the context of the specific study.

Marks awarded for criterion C assess the quality of the description of as study/studies and assess how well the student linked the findings of the study to the question - this doesn't have to be very sophisticated or long for these questions but still the aim or the conclusion should be linked to the topic of the specific question.

Criterion D assesses how well the student is explaining strengths and limitations of the study/studies.

12. To what extent is the understanding of social responsibility (by-standerism, prosocial behaviour) influenced by biological factors? [22]

Refer to the paper 2 assessment criteria when awarding marks.

The command term “to what extent” requires candidates to consider the contribution of biological factors in the understanding of social responsibility.

It is appropriate and useful for candidates to address cognitive and/or sociocultural factors influencing the understanding of social responsibility in order to respond to the command term “to what extent”.

Responses may refer to biological factors and/or theories related to prosocial behaviour including, but not limited to:

- Dawkins’ selfish gene theory
- Kin selection theory

Relevant research may include, but is not limited to:

- Dawkins (1976) on evolutionary explanation for social responsibility
- Hamilton (1964) on Kin Selection theory and social responsibility
- Simmons et al. (1977) on Kin Selection theory and kidney donation
- Batson et al. (1981) on limitations of Kin Selection theory
- Axelrod and Hamilton (1981) on reciprocity and social responsibility
- Trivers (1971) on reciprocity altruism theory
- Latané and Darley (1968) on by-stander behaviour
- Schaller and Cialdini (1988) on negative-state relief model and social responsibility
- Miller et al. (1990) on culture and social responsibility.

Responses referring to research with animals are relevant but must be linked to social responsibility in humans (altruism, helping behaviour). Responses that do not explicitly make any link to human behaviour should be awarded up to a maximum of [3] for criterion D: critical thinking. All remaining criteria should be awarded marks according to the best-fit approach.

Discussion may include, but is not limited to:

- methodological and ethical considerations
 - how the findings of research have been interpreted and applied
 - implications of the findings
 - cultural and gender considerations
 - nature and nurture
 - free will vs. determinism
 - the accuracy and clarity of the concepts
 - assumptions and biases
 - areas of uncertainty
 - supporting and/or contradictory evidence
 - comparison and/or contrast of non-biological and biological factors
 - practical applications (ways of promoting prosocial behavior).
-