

Markscheme

May 2016

Psychology

Higher level and standard level

Paper 2

19 pages

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Paper 2 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.

Abnormal psychology

1. Compare and contrast **two** approaches to the treatment of **one** disorder.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “compare and contrast” requires candidates to give an account of similarities and differences between two approaches to the treatment of one disorder. Although a discussion of both similarities and differences is required, it does not have to be evenly balanced to gain high marks.

Expect a range of different approaches to treatment to be offered in response to the question. Individual treatments could include systematic desensitization, cognitive behavioural therapy (CBT), and person-centred therapy. Group approaches could include group cognitive therapy, group mindfulness-based cognitive therapy (MBCT), or family therapy. Biomedical approaches could include drug therapy, electrical brain stimulation, electroconvulsive therapy (ECT), or surgery.

Responses could compare and contrast:

- the effectiveness of the two approaches to treatment
- etiological assumptions influencing the treatment
- the role of the therapist
- appropriateness for different cultural contexts
- ethical considerations
- cost in time and money
- strengths and limitations of the approaches to treatment.

If a candidate compares and contrasts the use of two approaches to the treatment for more than one disorder, credit should be given only to the part of the response relevant for the first disorder.

Candidates may address two approaches to treatment of a general disorder (for example, an eating disorder) or a more specific type of disorder (for example, anorexia/bulimia). Both approaches are equally acceptable.

Candidates may address two broad approaches to treatment of one disorder (for example, individual cognitive approach to treatment versus group cognitive approach to treatment) or two specific treatments of one disorder (for example, CBT versus MBCT). Both approaches are equally acceptable.

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

If a candidate compares and contrasts the use of two approaches to the treatment but does not refer to a disorder, the response should be awarded a maximum of **[4]** for criterion A, knowledge and understanding, up to a maximum of **[5]** for criterion B, critical thinking and up to a maximum of **[2]** for criterion C, organization.

If a candidate discusses treatment without specifically linking that treatment to an approach to treatment, the response should be awarded up to a maximum of **[6]** for criterion A, knowledge and comprehension. Up to full marks may be awarded for criterion B, critical thinking, and for criterion C, organization.

If a candidate only describes and evaluates one approach to treatment with no specific reference to another approach to treatment, the response should be awarded up to a maximum of **[3]** 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.

2. Discuss ethical considerations in diagnosis.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review of ethical considerations in diagnosis.

Ethical considerations may include, but are not limited to:

- consequences of an incorrect diagnosis on treatment and the health of the client (self-fulfilling prophecies)
- effects of labelling
- the possibility of stigmatization once a client is diagnosed
- confidentiality of diagnosis
- over-diagnosis of certain disorders (for example, in relation to gender and culture)
- potential bias in diagnosis by the doctor.

Responses may include, but are not limited to, the following theories and studies:

- Scheff (1966): labelling theory applied to the term “mentally ill”
- Thoits (1985) self-labelling processes in mental illness
- Broverman *et al.* (1970): gender bias in diagnosis
- Rosenhan *et al.* (1973): being sane in insane places
- Szasz's claim that most mental disorders should be considered as problems in living.
- Langer and Abelson (1974): studies regarding the prejudice and discrimination experienced by persons perceived as having a mental illness.

Candidates may refer to ethical considerations related to treatment, institutionalization, cultural/gender or other issues, and these should be credited if they are explicitly linked to diagnosis.

If a candidate discusses diagnosis but makes no reference to ethical considerations (for example, provides a general response about validity and reliability of diagnosis with no link to ethics) the response should be awarded up to a maximum of [3] 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.

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

3. Discuss gender variations in the prevalence of **one or more** disorders.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “*discuss*” requires candidates to offer a considered and balanced review that addresses how gender may influence the prevalence of one or more disorder(s).

Relevant research may include, but is not limited to:

- the effect of estrogen on the hypothalamo-pituitary-adrenal axis (HPA) in relation to depression
- vulnerability models/life stressors (Brown and Harris, 1978)
- bias in diagnosis
- gender norms
- cognitive styles (Nolen–Hoeksema, 1994).

Discussion could include, but is not limited to:

- cultural considerations
- differences in reported and actual prevalence of a disorder
- role of historical context
- methodological considerations
- ethical considerations
- empirical evidence.

Candidates may discuss a small number of gender variations in order to demonstrate depth of knowledge, or may discuss a larger number of gender variations in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Candidates may discuss one disorder in order to demonstrate depth of knowledge, or may discuss a larger number of disorders in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Developmental psychology

4. Compare and contrast **two** theories of cognitive development.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “compare and contrast” requires candidates to give an account of similarities and differences between two theories of cognitive development. Although a discussion of both similarities and differences is required, it does not have to be evenly balanced to gain high marks.

Relevant theories may include, but are not limited to:

- Piaget’s assimilation/accommodation model of cognitive development
- Vygotsky’s contextual approach to cognitive development
- Bruner’s theory of cognitive development
- information-processing approach to cognitive development
- neurobiological explanations of cognitive development.

Comparing and contrasting points may include, but are not limited to:

- assumptions of the theories
- methodological considerations
- cultural and gender considerations
- stages versus continuous process
- productivity of the theories in generating psychological research
- applications of the empirical findings.

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

If a candidate only describes and evaluates one theory with no specific reference to another theory, the response should be awarded up to a maximum of **[3]** 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.

If a candidate compares and contrasts more than two theories, credit should be given only to the first two theories. However, candidates may address other theories and be awarded marks for these as long as they are clearly used to clarify the comparison of the two main theories addressed in the response.

If a response is based upon theories of attachment rather than cognitive development, the response should be awarded up to a maximum of **[3]** 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.

5. Discuss the formation and development of gender roles.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review that includes a range of arguments, factors or hypotheses of the formation and development of gender roles.

Candidates do not need to distinguish between the formation and development of gender roles, as the two are so closely linked.

Relevant theories may include, but are not limited to:

- gender schema theory that stresses the key role of cognitive processes in the development of gender roles
- social learning theory that highlights the importance of the social environment and emphasizes the potency of observational and modelling processes
- theory of psychosexual differentiation that is based on the assumption that gender roles are related to genetic sex determined by chromosomes
- evolutionary theory that attempts to locate gender role differences in a historical evolutionary context
- psychodynamic theory that is based on the assumption that gender roles appear when children identify with their same-sex parent.

Relevant studies may include, but are not limited to:

- Martin and Halvorson’s study (1983) showing the role of gender schemas on gender roles
- Fagot’s study (1978) showing the influence of parents on gender roles
- Mead’s study (1935) showing that gender roles depend upon the society
- Money and Ehrhardt’s study (1972) claiming that children are gender neutral at birth.

Discussion may include but is not limited to:

- supporting and contradicting evidence
- the role of sociocultural factors such as media, parental influence or stereotypes
- sociocultural differences in conceptualization of gender roles
- the interaction of nature and nurture
- methodological and/or ethical considerations.

6. Evaluate **one or more** strategies to build resilience.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of one or more strategies to build resilience. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Strategies to build resilience may include but are not limited to:

- social programmes for youth such as Head Start or the Big Brothers Big Sisters Programme (Tierney *et al.* 1985)
- programmes dealing with parental education (Sanders *et al.* 2002)
- programmes developing skills to protect and promote well-being (for example, cognitive-behavioural therapy (CBT) and social skills training)
- stress inoculation training
- programmes to develop psychological strengths (for example, anger management).

Evaluation may include but is not limited to:

- methodological, cultural and gender considerations
- the importance of age and/or maturity of the individual
- the danger of a reductionist approach as resilience is complex and multiple ways of promoting it should be proposed
- supporting and contradicting evidence.

If a candidate discusses only general issues related to resilience and does not address a strategy, the response should be awarded up to a maximum of **[3]** for criterion A, knowledge and comprehension, up to a maximum of **[3]** for criterion B, critical thinking, and up to **[2]** for criterion C, organization.

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

Candidates may evaluate one strategy in order to demonstrate depth of knowledge, or may evaluate a larger number of strategies in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Health psychology

7. Discuss physiological **and** psychological aspects of stress.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of physiological and psychological aspects of stress. Both aspects of stress must be discussed but this does not have to be equally balanced in order to gain high marks.

Physiological aspects of stress may include, but are not limited to:

- the role of the brain in the development of stress and the mechanisms that exist in the brain that seek to minimize stress (Hegel *et al.* 1989)
- adrenal responses to environmental stressors
- the role of cortisol depletion on post-traumatic stress disorder (PTSD)
- the connection between stress and the immune system
- the link between stress and heart disease.

Psychological aspects of stress may include, but are not limited to:

- how an individual appraises a situation, *ie* cognitive appraisal
- attributional style, either positive or negative
- perceived threats to one’s “social self”
- role of personality in managing stress.

Research may include, but is not limited to:

- Canon’s fight or flight theory (1914)
- Selye’s general adaptation syndrome model (1956)
- Kiecolt–Glaser *et al.*’s (1984) natural experiment to investigate whether the stress of an important exam had an effect on the body’s immune functioning
- Vogelzangs *et al.*’s (2010) study on the link between high stress hormone levels and increased cardiovascular mortality
- Lazarus and Folkman’s (1984) transactional model of stress
- Kamen and Seligman’s (1987) study on attributional style and subsequent health predictors
- Kemeny *et al.*’s social self-preservation theory (2005)
- Sapolsky’s (2000) study of the link between shrinkage of the hippocampus and cortisol.

Candidates may consider social aspects of stress in order to offer evidence of critical thinking, provided the focus remains on the discussion of physiological and psychological aspects of stress.

Candidates may consider a small number of physiological and psychological aspects of stress in order to demonstrate depth of knowledge, or may consider a larger number of physiological and psychological aspects of stress in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate discusses only physiological or only psychological aspects of stress, the response should be awarded up to a maximum of **[5]** for criterion A, knowledge and understanding, up to a maximum of **[4]** for criterion B, critical thinking, and up to a maximum of **[2]** for criterion C, organization.

8. To what extent do sociocultural factors influence health-related behaviour (stress, substance abuse, addictive behaviour, overeating and/or obesity)?

Refer to the paper 2 assessment criteria when awarding marks.

The command term “to what extent” requires candidates to consider the merits or otherwise of the argument that sociocultural factors influence health-related behaviour.

Candidates may approach health-related behaviour as a whole or use specific examples of health-related behaviour. Both approaches are equally acceptable.

Sociocultural factors may include, but are not limited to:

- socio-economic status
- education
- cultural norms
- sociocultural norms, for example, sedentary lifestyle and attitudes to exercise/diet (Lakdawalla and Philipson, 2002)
- influence of media (Huhman *et al.* 2005).

If a candidate addresses sociocultural factors and does not explicitly relate them to health-related behaviour, award up to a maximum of **[3]** 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.

It is appropriate and useful for candidates to address biological and/or cognitive factors in order to address the command term “to what extent”.

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

9. Evaluate **two** treatments for substance abuse and/or addictive behaviour.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of two treatments used for substance abuse and/or addictive behaviour. Although a discussion of both strengths and limitations of treatments is required for each treatment, it does not have to be evenly balanced to gain high marks.

Responses are not required to make a distinction between “substance abuse” and “addictive behaviour”. Also the question is phrased in such a way that candidates may offer an evaluation of treatments for only substance abuse, or only addictive behaviour or both. All responses are equally acceptable.

Different treatments may include, but are not limited to:

- nicotine replacement therapy
- drug treatment
- mindfulness-based stress reduction (MBSR)
- combination treatment (for example, offering Zyban and providing group-based cessation treatment)
- group therapies (for example, Alcoholics Anonymous)
- self-efficacy training
- cognitive behaviour therapy and goal-setting training.

Relevant research may include, but is not limited to:

- Davis *et al.*'s (2007) study on effectiveness of MBSR in smoking cessation
- Sinclair's (2001) and Krampe *et al.*'s (2006) studies on drug treatments and alcohol dependency
- Hughes's (1993) research on the effectiveness of nicotine replacement therapy
- Jorenby *et al.*'s (1999) study on the effectiveness of nicotine patches and Zyban in smoking cessation.

Evaluation of the treatment may include but is not limited to:

- the effectiveness of treatment
- methodological considerations of research/studies
- cultural and/or gender considerations
- ethical considerations
- comparison with other treatments.

If a candidate evaluates more than two treatments, credit should be given only to the first two treatments discussed. Candidates may address other treatments and be awarded marks for these as long as they are clearly used to evaluate one or both of the two main treatments addressed in the response.

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

Psychology of human relationships

10. Evaluate **one** theory explaining altruism in humans.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of one theory explaining altruism in humans. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Responses may refer to biological and/or psychological theories of altruism including, but not limited to:

- Dawkins’ selfish gene theory
- kin selection theory
- Trivers’ reciprocal altruism theory
- Cialdini’s negative-state relief model
- Batson’s empathy-altruism model.

Animal research may be used as long as a clear link is made to human behaviour.

If a candidate evaluates more than one theory of altruism, credit should be given only to the first evaluation, unless the other theory or theories are clearly used to evaluate the main theory, for example, used to illustrate the strengths and/or limitations of the main theory.

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

11. Analyse the role that culture plays in the formation and maintenance of relationships.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “analyse” requires candidates to bring out (emphasize) essential aspects of the role that culture plays in the formation and maintenance of relationships.

Candidates do not need to distinguish between the formation and maintenance of relationships, as the two are so closely linked.

Candidates may address different types of relationships, for example, romantic relationships, marriages, friendship, family relationships.

Responses may include, but are not limited to:

- the role of individualism versus collectivism. Individualistic cultures emphasize the relevance of individual choice and romantic love whereas collectivist cultures often emphasize arranged marriages
- the difference between continuous versus discontinuous cultures. Continuous societies show a concern for heritage and tradition, whereas discontinuous cultures focus on youth and progress, and change is seen as important and inevitable
- equity is not a universal value in relationships
- in some traditional cultures chastity and homemaking skills are more valued in women
- evolutionary theory suggests there are universal patterns in the formation and maintenance of relationships
- the role of cultural norms in the formation and maintenance of relationships.

Studies may include, but are not limited to:

- Yelsma and Athappilly’s (1988) comparative study of arranged marriages and love marriages
- Buss *et al.*’s (1990) study of international preferences in selecting mates (a study of 37 cultures)
- Levine *et al.*’s (1995) study on the role of love in the establishment of marriage
- Buss’s (1994) cross-cultural study of relationships
- Canary and Dainton’s (2003) study of Korean relationships
- Ahmad and Reid’s (2008) study of communication styles in arranged marriages.

Evidence of critical thinking may be provided by candidates in the following ways:

- a debate about universality
- comparing and contrasting cultural similarities and differences in relationships (for example, do social norms affect how appropriate it is to express dissatisfaction with a marriage)
- discussing interaction between biological and cultural factors
- evaluation of relevant research.

If a candidate provides a general response about formation and maintenance of relationships with no link to culture, the response should be awarded up to a maximum of [3] 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.

12. Discuss the effects of short-term and/or long-term exposure to violence.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review that includes different effects of short-term and/or long-term exposure to violence.

It is not necessary for candidates to distinguish between short-term and long-term exposure to violence.

Responses could focus on the effects of violence on individuals and/or groups. Examples of violence may include, but are not limited to: bullying, domestic violence, war, terrorism, genocide.

Effects of exposure to violence may include, but are not limited to:

- physiological responses to stress (for example, fight or flight)
- cortisol depletion leading to chronic fatigue
- effects on mental health, for example, anxiety, low self-esteem, post-traumatic stress disorder (PTSD), depression, suicide
- lower performance in school
- psychosomatic illnesses
- the circle of violence (for example, Totten’s (2003) study of domestic violence)
- delinquency.

Research may include, but is not limited to:

- Shalev and Freedman’s (2005) study on PTSD following terrorist attacks
- Kumar *et al.*’s (2005) study on the effect of domestic violence on mental health in Indian women
- Shuster *et al.*’s (2001) study of stress responses to exposure to terrorism during 9/11
- Hyman’s (1990) study of long-term exposure and depression.

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

- resilience (as an alternative argument)
- difficulty in obtaining empirical evidence
- difficulty in defining terms, for example, what is considered bullying
- gender and cultural differences.

Candidates may discuss a small number of effects in order to demonstrate depth of knowledge, or may discuss a larger number of effects in order to demonstrate breadth of knowledge.

NB for standardization: perhaps consider how to address responses that discuss the short/long-term effects.

Sport psychology

13. Compare and contrast **two** models of causes of burnout in sport.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “compare and contrast” requires candidates to give an account of similarities and differences between two models of causes of burnout in sport. Although a discussion of both similarities and differences is required, it does not have to be evenly balanced to gain high marks.

Burnout can be defined as psychological, emotional, and even physical withdrawal from an activity that previously was enjoyable. Models/theories of the causes of burnout include, but are not limited to:

- the cognitive-affective stress model
- negative training stress model
- self-determination theory
- investment model.

Comparing and contrasting points may include, but are not limited to:

- assumptions of the models
- methodological considerations
- cultural and gender considerations
- productivity of the models in generating psychological research
- applications of the empirical findings to specific sports.

In addition to the formal models listed above, candidates may also discuss the roles of coaches, parents and peers in causing burnout, intrinsic versus extrinsic motivation, the role of injury, challenges to identity, perfectionism and other psychological and physical factors in burnout.

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

If a candidate describes and evaluates only one model of causes of burnout in sport the response should be awarded up to a maximum of **[3]** 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.

If a candidate compares and contrasts more than two models, credit should be given only to the first two models. However, candidates may address other models and be awarded marks for these as long as they are clearly used to clarify the comparison of the two main models addressed in the response.

14. Evaluate **one or more** theories relating arousal and/or anxiety to performance in sport.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and the limitations of a theory relating arousal and/or anxiety to performance in sport.

Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

It is not necessary for candidates to distinguish between arousal and anxiety.

Theories include, but are not limited to:

- the inverted-U hypothesis
- drive theory
- the catastrophe model
- optimal arousal theory
- reversal theory
- the theory of self-efficacy.

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

- methodological considerations
- the accuracy and clarity of the concepts
- contrary findings or explanations
- the productivity of the theory in generating psychological research
- the applications of the empirical findings.

Candidates may discuss one theory in order to demonstrate depth of knowledge, or may discuss a larger number of theories in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

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

15. Discuss athlete response to stress and/or chronic injury.

Refer to the paper 2 assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered review of athlete response to stress and/or chronic injury.

Candidates may focus their responses on stress alone, chronic injury alone, or address both topics in their answers. Candidates may consider how stress and chronic injury may interact, and this is also a valid approach to the question.

Research with regard to stress may include, but is not limited to:

- Williams *et al.* (1991) on stress, reduction of attention, and injury
- Anderson and Williams (1999) on negative life-events, stress and injury
- Cramer *et al.* (2000) on stress and impaired healing
- Smith *et al.* (2000) on stress, muscle tension and injury
- Perna *et al.* (2003) on stress, sleep disturbances, and impaired healing.

Research with regard to chronic injury may include, but is not limited to:

- Hardy and Crace’s (1990) application of Kubler–Ross’s model to rehabilitation
- Brewer’s (1994) critique of the Kubler–Ross model
- Nixon (1992) on coping in a sport “culture of risk”
- Petipas and Danish (1995) on identity loss in response to injury
- Shuer *et al.* (1997) on avoidance coping
- Udry *et al.*’s (1997) information-processing model of injury response
- Wiese–Bjornstall’s (1998) cognitive appraisal model and coping.

Discussion could include, but is not limited to:

- cultural considerations
- gender considerations
- supporting or contradicting empirical evidence
- methodological considerations.

If a candidate addresses only general theories/models of stress without linking them to athlete response to stress, the response should be awarded up to a maximum of **[3]** 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.