

Physical Education marking guide and response

External assessment 2022

Combination response (57 marks)

Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

1. recognise and explain energy, fitness and training concepts and principles about movement
4. analyse and synthesise data to devise strategies about energy, fitness and training
5. evaluate training strategies about movement
6. justify training strategies about movement
7. make decisions about and use mode-appropriate features, language and conventions to communicate meaning to inform a technical audience.

Note: Objectives 2 and 3 are not assessed in this instrument.

Purpose

This document consists of a marking guide and a sample response.

The marking guide:

- provides a tool for calibrating external assessment markers to ensure reliability of results
- indicates the correlation, for each question, between mark allocation and qualities at each level of the mark range
- informs schools and students about how marks are matched to qualities in student responses.

The sample response:

- demonstrates the qualities of a high-level response
- has been annotated using the marking guide.

Mark allocation

Where a response does not meet any of the descriptors for a question or a criterion, a mark of '0' will be recorded.

Where no response to a question has been made, a mark of 'N' will be recorded.

Marking guide

Multiple choice

Question	Response
1	A
2	D
3	B
4	C
5	C
6	B
7	C
8	B
9	D
10	B

Short response

Q	Sample response	The response:	M
11	<p>The cool down feature of a training session aims to use gentle cardiovascular exercise and stretching to slow down body exertion, gradually reducing heart rate and body temperature to resemble pre-exercise rates more closely. This allows the body to commence tissue repair and the process of replenishing energy stores.</p> <p>This process also allows the muscles to relax, assisting in the removal of waste products such as lactic acid, contributing to a more effective rate of recovery.</p>	<ul style="list-style-type: none"> discerningly explains the aims of the cool down feature 	6
		<ul style="list-style-type: none"> explains the aims of the cool down feature 	5
		<ul style="list-style-type: none"> describes the aims of the cool down feature 	4
		<ul style="list-style-type: none"> describes some aims of the cool down feature <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies all aims of the cool down feature 	3
		<ul style="list-style-type: none"> identifies some aims of the cool down feature 	2
		<ul style="list-style-type: none"> identifies one aim of the cool down feature 	1
		<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Q	Sample response	The response:	M	The response:	M	The response:	M
12	<p>Data collection during games analysis greatly assists with delivering an effective individualised training program. Specifically, it can be used to ensure the identification of specific training objectives for the athlete, determine work volumes, frequency, intensity and duration of sessions elements, and provide key insights into the formation of individualised tapering and recovery objectives.</p> <p>Data collection can be used to identify an athlete's strengths and weaknesses in related components of fitness. Once identified, the training program can be individually tailored to ensure there is a focus on improving weaknesses and maintaining strengths. The training program then becomes solely focused on the athlete's individual needs. This can then be used to set and measure specific training objectives, ensuring the delivery of an effective individualised training program. Once the data has been used to establish specific training objectives, the training program can then manipulate work volume, frequency, duration and intensity of set training activities to cater for the identified components of fitness requiring training. For example, if an effort determines they require a focus on being able to work for longer periods at submaximal levels, the program will modify their duration and frequency to suit accordingly, e.g. 70% MHR for 45 minutes.</p> <p>Games analysis data can also provide individualised insight into the specific tapering and recovery requirements of an athlete. The data can indicate pre- or post-game recovery requirements of the athlete and be used to determine individualised tapering periods to optimise game performance.</p>	<ul style="list-style-type: none"> explains how games analysis data can be used to assist in developing individualised and specific training objectives to achieve a desired outcome 	3	<ul style="list-style-type: none"> explains how games analysis data can be used to assist in developing individualised work volume, frequency, intensity and duration to achieve a desired outcome 	3	<ul style="list-style-type: none"> explains how games analysis data can be used to assist in developing individualised tapering and recovery plans to achieve a desired outcome 	3
		<ul style="list-style-type: none"> describes how games analysis data can be used to assist in planning individualised and specific training objectives to achieve a desired outcome 	2	<ul style="list-style-type: none"> describes how games analysis data can be used to assist in planning individualised work volume, frequency, intensity and/or duration to achieve a desired outcome 	2	<ul style="list-style-type: none"> describes how games analysis data can be used to assist in planning individualised tapering and/or recovery plans to achieve a desired outcome 	2
		<ul style="list-style-type: none"> identifies a feature of games analysis for meeting specific training objectives 	1	<ul style="list-style-type: none"> identifies a feature of game analysis for individualising work volume, frequency, intensity and/or duration 	1	<ul style="list-style-type: none"> identifies a feature of game analysis for individualising tapering and/or recovery plans 	1
		<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Q	Sample response	The response:	M	The response:	M	The response:	M
13	<p>The graph shows the ATP/PC system uses an anaerobic pathway, with stored ATP and resynthesised ATP as the primary energy provider for maximal efforts at approximately 8–10 secs.</p> <p>At approximately 8 seconds, an interplay emerges as the dominant energy system then becomes the lactic acid system. This pathway is also an anaerobic energy system, using muscle glycogen as the fuel to resynthesise ATP, in a process called anaerobic glycolysis.</p> <p>During periods of work lasting longer than 90 seconds, the dominant energy system then becomes the aerobic energy system. This energy system is used in activities requiring approximately 75% of MHR or lower and uses oxygen and carbohydrates within the process of glycolysis to resynthesis ATP in fuelling the working muscles.</p> <p>Basketball requires a continuous interplay across all energy systems as the player moves between maximal, submaximal and aerobic intensities through the performance.</p> <p>The fast break in basketball uses the ATP/PC system. In this movement sequence, maximal efforts are required for short explosive periods, creating and exploiting space. This provides the player the opportunity to score without opposition pressure.</p> <p>Moving down the court and driving into the key uses the lactic acid system. This movement sequence requires sharp increases of intensity to create attacking options. Effective performance of this movement sequence would allow ongoing production of submaximal efforts above the anaerobic threshold (80–85% MHR). The continuous nature of court movements without stationary rest relies on the aerobic system. This optimises the athlete's performance in transitioning and dribbling up and down the court.</p>	<ul style="list-style-type: none"> discerningly explains the interplay between energy systems during physical activity using extensive indicators from the graph 	6	<ul style="list-style-type: none"> identifies 3 appropriate specialised movement sequences within a physical activity context 	3	<ul style="list-style-type: none"> describes the connections between the identified movement sequences and each energy system for optimising performance 	3
		<ul style="list-style-type: none"> explains the interplay between energy systems during physical activity using indicators from the graph 	5	<ul style="list-style-type: none"> identifies 2 appropriate specialised movement sequences within a physical activity context 	2	<ul style="list-style-type: none"> describes the connections between the identified movement sequences and 2 energy systems for optimising performance <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies 2/3 connections between identified movement sequences and an energy system 	2
		<ul style="list-style-type: none"> describes the interplay between energy systems during physical activity using extensive indicators from the graph 	4	<ul style="list-style-type: none"> identifies an appropriate specialised movement sequence within a physical activity context 	1	<ul style="list-style-type: none"> identifies a connection between an identified movement sequence and an energy system 	1
		<ul style="list-style-type: none"> describes the interplay between energy systems during physical activity using indicators from the graph 	3				
		<ul style="list-style-type: none"> describes the interplay between energy systems 	2	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0
		<ul style="list-style-type: none"> identifies a feature from the graph <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies a feature of the interplay between energy systems 	1				
		<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0				

Extended response: Question 14

The response:	M	The response:	M	The response:	M	The response:	M
<ul style="list-style-type: none"> provides a discerning analysis of the tables to synthesise meaning when identifying the relevant components of fitness uses comprehensive evidence from the tables to support the identification of the relevant components of fitness 	5	<ul style="list-style-type: none"> provides two training sessions provides a comprehensive description of the training sessions 	5	<ul style="list-style-type: none"> uses a range of training method/s and principles of training provides a comprehensive explanation of the links between the training sessions and the correctly identified components of fitness 	5	<ul style="list-style-type: none"> provides a discerning justification of how the devised training sessions will optimise performance demonstrates discerning use of the tables when linking to the identified components of fitness in the pursuit of optimal performance 	5
<ul style="list-style-type: none"> provides an analysis of the tables to identify the relevant components of fitness uses evidence from the tables to support the identification of the relevant components of fitness 	4	<ul style="list-style-type: none"> provides two training sessions provides a detailed description of the training sessions 	4	<ul style="list-style-type: none"> uses a range of training method/s and principles of training provides a detailed explanation of the links between the training sessions and the correctly identified components of fitness 	4	<ul style="list-style-type: none"> provides a considered justification of how the devised training sessions will optimise performance demonstrates considered use of the tables when linking to the identified components of fitness in the pursuit of optimal performance 	4
<ul style="list-style-type: none"> describes the tables when identifying the relevant components of fitness identifies evidence from the tables 	3	<ul style="list-style-type: none"> provides two training sessions provides an appropriate description of the training sessions 	3	<ul style="list-style-type: none"> uses training method/s and principles of training provides an appropriate explanation of the links between the training sessions and the identified components of fitness 	3	<ul style="list-style-type: none"> provides an appropriate explanation of how the devised training sessions will optimise performance demonstrates appropriate use of the tables when linking to the identified components of fitness in the pursuit of optimal performance 	3

The response:	M	The response:	M	The response:	M	The response:	M
<ul style="list-style-type: none"> identifies relevant components of fitness identifies a relevant feature or features from the tables 	2	<ul style="list-style-type: none"> provides aspects of a training session describes a feature of the training session 	2	<ul style="list-style-type: none"> identifies a training method and a principle of training provides a description of a link between the training session/s and an identified component of fitness 	2	<ul style="list-style-type: none"> provides a feasible explanation of how the devised training session/s will optimise performance demonstrates feasible use of the tables when linking to the identified components of fitness in the pursuit of optimal performance 	2
<ul style="list-style-type: none"> identifies a component of fitness <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies a feature from the tables 	1	<ul style="list-style-type: none"> provides an aspect of a training session <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies a feature of training sessions 	1	<ul style="list-style-type: none"> identifies a training method or a principle of training <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> provides a description of a link between the training session/s and an identified component of fitness 	1	<ul style="list-style-type: none"> provides a description of how the devised training session/s will optimise performance <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> identifies a feature from the tables linking to an identified component of fitness 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0



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