

SOMATOTYPES

Questions

Q1.

Describe a characteristic of a mesomorph that makes it the ideal body type for 100m sprinters.

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.....

Q2.

Three extreme body types are listed below.

For each of the body types, name a sporting activity where this body type would be an advantage.

You must name a **different** sporting activity for each body type.

1 Mesomorph

.....

2 Endomorph

.....

3 Ectomorph

.....

(Total for question = 3 marks)

Mark Scheme

Q1.

Question	Answer	Do not accept	Additional Guidance	Marks	Total
	1. Very muscular/high muscle mass (1) so they can run fast in the 100m sprint /apply more force to the blocks for a quicker start (1)	<p><i>Large build unless qualified further in relation to muscles</i></p> <p><i>Fast twitch muscle fibres</i></p> <p><i>'Strength' as replacement for power or muscular</i></p> <p><i>Responses that fail to give a characteristic</i></p>	<p><i>2nd point must link to 100 m</i></p> <p><i>Credit other characteristics that differentiate this body type, e.g. solid build/wide shoulders for 1 mark – cannot get extension mark unless linked to muscle mass.</i></p>	1x2	(2)

Q2.

Question	Answer	Marks	Total
	Mesomorph - sprinting/100 m	3x1	(3)
	Endomorph - sumo (wrestling)		
	Ectomorph- 10,000 m		

Q3.

		Answer
		A discussion of the suitability of a mesomorph body type for activity that makes reference to:
<p>Indicative content 1. Characteristics (matching body type to characteristic(s) – simple statements) Mesomorphs – Muscular/ broad shoulders/equiv; gain muscle readily/equiv. DO NOT ACCEPT big built as equivalent to muscular. Ectomorph - Slim/equiv; often tall/equiv; lightly muscled/equiv Endomorphs – Wide hips/equiv; Narrow shoulders/equiv; weight loss more difficult/equiv</p> <p>Links to other activities - simple statements Mesomorphs suited to power/strength events (if explained can be developed e.g mesomorphs are muscular <u>this is</u> good for 100m sprint <u>as they</u> need power) Mesomorphs not suited to endurance events, ectomorphs are (SS) Developed statements must be made from linked points; underlined words shown below indicate links, alternative linking words can be used provided there is appropriate development of the point.</p> <p>Advantages of body types (linking body type- characteristic- and advantage – developed discussion points) mesomorph <u>has</u> better muscle ratio than other body types/equiv <u>therefore</u> more power/speed/strength generated <u>so better</u> for power events Ectomorph <u>is</u> ideal <u>as</u> lighter (than other body types) <u>therefore</u> quicker/easier to run /more suitable Ectomorph <u>is</u> ideal <u>as</u> tall <u>therefore</u> they have a greater stride length <u>to</u> cover distance quicker Ectomorph <u>is</u> ideal <u>as</u> has increased stride length <u>therefore</u> fewer steps required to cover distance</p> <p>Disadvantages (linking body type- characteristic- and disadvantage – developed discussion points) Mesomorph not ideal <u>as</u> has increased weight of body <u>due to</u> muscle mass <u>therefore</u> slowing the runner down/making them work harder/need more energy/use more oxygen Mesomorph not ideal <u>as</u> has reduced flexibility <u>due to</u> increased muscle mass <u>therefore</u> shorter stride length Ectomorph not ideal <u>as has</u> reduced muscle mass (compared to mesomorphs) <u>therefore</u> cannot generate as much power or speed</p> <p>4. Conclusion An ectomorph has a lighter frame therefore less demanding physically than for other body types to complete the distance. Therefore although a mesomorph could run in this type of event it is not the 'ideal'. The extreme body type for long distance runner would be better to be ectomorph Credit alternative conclusions that identify the ideal might be a body type that is mainly ectomorph, but does have some muscle/equiv. Simple statement unless explained/developed. No credit for concluding statements that do not relate to question or candidate answer, or a concluding statement that simply repeats the question.</p>		
Level	Mark	Descriptor
Level 0	0	No rewardable material
Level 1	1-2	i) A number of simple statements that identify characteristics of body types or identifying/describing advantage/disadvantage. E.g. a mesomorph is muscular; an ectomorph tends to be thin. A disadvantage of a mesomorph is muscle is heavy. ii) A developed statement (discussing why characteristic is an advantage/disadvantage for a specific body type) E.g.

		<p>Mesomorphs tend to be muscular, this is a disadvantage as muscle is heavy therefore more weight to carry which will slow the performer. Candidates will produce brief and narrative responses, making a limited number of simple statements, probably with limited reference to the question. Little knowledge and understanding of the range of requirements. Responses produced by candidates will be mostly generalised, and may not fully address the requirement of the question to discuss whether a mesomorph body type is ideal for endurance activities. Candidates' writing communicates ideas using everyday language, but lacks clarity and organisation. There will be frequent errors in candidates' spelling, grammar and punctuation.</p>
<p>Level 2</p>	<p>3-4</p>	<p>i) Developed statements, i.e. simple statements with explanation or additional information about the body type in relation to the ideal for the endurance events. E.g. ectomorph has a lighter frame than other body types meaning less weight to carry <u>therefore</u> more pace. ii) Developed statements identifying pros and cons of mesomorph body type but may not be balanced between advantages/disadvantages. iii) Basic (but accurate) conclusion in line with previous points. Candidates' responses will be mostly accurate and include relevant factual material. Some knowledge and understanding of the importance of agility and reaction time. Candidates will have addressed the</p>

		<p>requirement of the question to discuss the mesomorph body type in relation to the ideal for performance in endurance based events with some success. Candidates' writing communicates ideas with accurate use of appropriate terminology, and the organisation of the response shows some direction and control. There will be few errors in spelling, punctuation and grammar.</p>
<p>Level 3</p>	<p>5-6</p>	<p>i) Developed statements (using relevant examples) balanced and succinct. Expectation that some direct comparison between merits of different body types leading to conclusion. ii) Conclusion provided based on points raised Candidates will offer factually accurate and sustained responses that relate well to the focus of the question and successfully addresses the evaluative demands. Good level of knowledge and understanding of body type and suitability for endurance activities. The evaluation will be supported by accurate factual material that is relevant to the question. The features of the body type will be fully evaluated with appropriate conclusions reached. Candidates' writing communicates ideas effectively using appropriate terminology, and organises material clearly and coherently. Spelling, punctuation and grammar will be accurate throughout the response.</p>