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##### Question/Answer Booklet

Name: MEMO

PHYSICAL EDUCATION STUDIES

**PES GENERAL: Exercise Physiology Test**

Working time for paper: 45 mins

###### *To be provided by the candidate*

Standard items: pens, pencils, eraser, correction fluid, ruler, highlighter

This paper consists of:

|  |  |  |
| --- | --- | --- |
| Questions | Number of questions available | Marks available |
|  |  |  |
|  |  | 40 |
|  |  |  |
|  |  |  |

1. Provide a definition of what fitness is. (2)

The ability of the bodies systems to function optimally for the desired time/event

1. Fitness can be divided into two categories; Health related and Performance related fitness.

Complete the table below indicating the different components of fitness. (11)

|  |  |
| --- | --- |
| **Health Components of Fitness** | **Performance Components of Fitness** |
| A Cardiorespiratory endurance | F Power |
| B Muscular strength | G Speed |
| C Muscular Endurance | H Agililty |
| D Flexibility | I Reaction Time |
| E Body Composition | J Coordination |
|  | K Balance |

1. Provide 3 reasons why fitness testing is important for an elite performance athlete? (3)

It Id’s athletes strength and weaknesses. Provide accurate feedback on fitness levels and what is still needed. Results can motivate and incentivise.

1. Examine the list of fitness tests below and name which fitness component is being tested. (6)

VO2 max test: Cardiorespiratory endurance

Skinfold measure: body composition

Bouncing 2 basketballs: coordination

Sit and reach test: flexibility

Receiving tennis serve: reaction time

Tennis rally: Muscular endurance/agility

1. What are the 3 elements of a training session? (3)

Warm up, conditioning phase and cool down phase

1. When we exercise there are 7 circulatory responses. Name and describe 3 responses. (6)

Increased cardiac output, increase HR, increased stroke volume, Increased blood pressure, increased ateriovenous o2 diff, selective redistribution of blood, Temperature regulation.

1. Our body provides energy for movement from the breakdown of ATP. How does the body recreate ATP? In order to answer this question you need to name the 3 energy systems.
2. Name the 3 energy pathways: (3)

ATP-Cp, Lactic acid or glycolytic, system Aerobic system.

1. Food can be broken down or digested into 3 categories, what are they? (3)

Carbohydrates, fats and proteins

1. Consider a Tour de France cyclist and the training required for this event. Name the energy system the cyclist would develop and name the type of training required for such an event. Use your knowledge of fitness testing to assist you. (4)

Aerobic system and he would train cardiovascular, respiratory and muscular endurance as well as leg strength and power Balance and core strength will also be developed.