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|  | **Applied Anatomy & Physiology- Paper 1** | | | |
| **Chapter 1** | **Applied Anatomy and Physiology** | | | |
| **A** | **The structure and functions of the musculo-skeletal system** | **RAG** | **MRI** | |
| 1 | The bones and structure of the skeleton and the functions of the skeleton. |  |  | |
| 2 | Structure of a synovial joint, types of freely movable joints that allow different movements, how joints differ in design to allow certain types of movement. |  |  | |
| 3 | The muscles of the body. |  |  | |
| 4 | How the major muscles and muscle groups of the body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major movable joints. |  |  | |
| **B** | **The structure and functions of the cardio-respiratory system** | **RAG** | **MRI** | |
| 1 | The pathway of air, gaseous exchange and the blood vessels. |  |  | |
| 2 | Structure of the heart. |  |  | |
| 3 | The cardiac cycle and the pathway of the blood. cardiac output, stroke volume and heart rate. |  |  | |
| 4 | Mechanics of breathing – the interaction of the intercostal muscles, ribs and diaphragm in breathing. |  |  | |
| 5 | Interpretation of a spirometer trace. |  |  | |
| **C.** | **Anaerobic and aerobic exercise** | **RAG** | **MRI** | |
| 1 | Understanding the terms aerobic exercise (in the presence of oxygen) and anaerobic exercise (in the absence of enough oxygen) and the use of aerobic and anaerobic exercise in practical examples of differing intensities. |  |  | |
| 2 | Excess post-exercise oxygen consumption (EPOC)/oxygen debt as the result of muscles respiring anaerobically during vigorous exercise and producing lactic acid. |  |  | |
| 3 | The recovery process from vigorous exercise. |  |  | |
| 4 | Immediate effects of exercise (during exercise). |  |  | |
| 5 | Short-term effects of exercise (24 to 36 hours after exercise). |  |  | |
| 6 | Long-term effects of exercise (months and years of exercising). |  |  | |
| **Chapter 2** | **Movement Analysis / Levers- Paper 1** | | | |
|  | **Levers** | **RAG** | **MRI** | |
| 1 | First, second and third class lever systems within sporting examples. |  |  | |
| 2 | Mechanical advantage – an understanding of mechanical advantage in relation to the three lever systems. |  |  | |
| 3 | Analysis of basic movements in sporting examples. |  |  | |
|  | **Planes and axes of movement** | **RAG** | **MRI** | |
| 1 | Identification of the relevant planes (frontal, transverse, sagittal) and axes (longitudinal, transverse, sagittal) of movement used in sport. |  |  | |
| **Chapter 3** | **Physical Training- Paper 1** | | | |
|  | **The components of fitness, benefits for sport and ways to measure and improve fitness** | **RAG** | **MRI** | |
| 1 | The components of fitness. |  |  | |
| 2 | Linking sports and physical activity to the required components of fitness. |  |  | |
| 3 | Reasons for and limitations of fitness testing. |  |  | |
| 4 | Measuring the components of fitness. |  |  | |
| 5 | Demonstration of how data are collected for fitness testing. |  |  | |
|  | **Principles of training and their application to personal exercise/training programmes** | **RAG** | **MRI** | |
| 1 | The principles of training and overload. |  |  | |
| 2 | Application of the principles of training. |  |  | |
| 3 | Types of training. |  |  | |
| 4 | Identification of the advantages and disadvantages (the effects on the body) of training types linked to specific aims. |  |  | |
|  | **How to optimise training and prevent injury** | **RAG** | **MRI** | |
| 1 | Calculating intensities to optimise training effectiveness. |  |  | |
| 2 | Considerations to prevent injury. |  |  | |
| 3 | Specific training techniques – high altitude training as a form of aerobic training. |  |  | |
| 4 | Seasonal aspects. |  |  | |
|  | **Effective use of warm up and cool down** | **RAG** | **MRI** | |
| 1 | Warming up and cooling down. |  |  | |
| **Chapter 7** | **Use of Data in Sport- Paper 1 and 2** | | |
|  | **Demonstrate an understanding of how data is collected – qualitative and quantitative** | **RAG** | **MRI** | |
| 1 | Quantitative data and the methods used for collecting quantitative data. |  |  | |
| 2 | Qualitative data and the methods for collecting qualitative data. |  |  | |
| 3 | Demonstrate the ability to present data in various forms. |  |  | |
| 4 | Demonstrate the ability to both analysis and evaluate data. |  |  | |

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| **Sports Psychology- Paper 2** | | | |
| **Chapter 4** | **Sports Psychology** | | | |
|  | **What is a skill and what is an ability?** | **RAG** | **MRI** | |
| 1 | Skill and ability. |  |  | |
| 2 | Classifications of skill. |  |  | |
| 3 | Definitions of types of goals. |  |  | |
|  | **The use of goal setting and SMART targets to improve and/or optimise performance** | **RAG** | **MRI** | |
| 1 | The use and evaluation of setting performance and outcome goals in sporting examples. |  |  | |
| 2 | The use of SMART targets to improve and/or optimise performance. |  |  | |
|  | **Basic information processing** | **RAG** | **MRI** | |
| 1 | Basic information processing model. |  |  | |
|  | **Guidance and feedback on performance** | **RAG** | **MRI** | |
| 1 | Identify examples of, and evaluate, the effectiveness of the use of types of guidance, with reference to beginners and elite level performers. |  |  | |
| 2 | Identify examples of, and evaluate, the effectiveness of the use of types of feedback, with reference to beginners and elite level performers. |  |  | |
|  | **Mental preparation for performance** | **RAG** | **MRI** | |
| 1 | Arousal and the Inverted-U theory. |  |  | |
| 2 | How optimal arousal levels vary according to the skill being performed in a physical activity or sport. |  |  | |
| 3 | How arousal can be controlled using stress management techniques before or during a sporting performance. |  |  | |
| 4 | Understand the difference between direct and indirect aggression with application to specific sporting examples. |  |  | |
| 5 | Understand the characteristics of introvert and extrovert personality types, including examples of sports which suit these particular personality types. |  |  | |
| 6 | Definition of intrinsic and extrinsic motivation, as used in sporting examples. |  |  | |
| 7 | Evaluation of the merits of intrinsic and extrinsic motivation in sport. |  |  | |

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| **Socio-cultural Influences – Paper 2** | | | |
| **Chapter 5** | **Socio-cultural influences** | | |
| A | **Engagement patterns of different social groups in physical activity and sport** | **RAG** | **MRI** |
| 1 | Understand the factors affecting participation. |  |  |
| 2 | Participation by Women. |  |  |
| 3 | Participation by Ethnicity. |  |  |
| 4 | Other factors affecting participation. |  |  |
| 5 | Disability participation. |  |  |
| 6 | Barriers to participation. |  |  |
| **B** | **Commercialisation of physical activity and sport** | **RAG** | **MRI** |
| 1 | Commercialisation. |  |  |
| 2 | Types of sponsorship and the media. |  |  |
| 3 | Positive and negative impacts of sponsorship and the media. |  |  |
| 4 | Positive and negative impacts of technology in sport. |  |  |
| 5 | Positive and negative impacts of technology on officials, spectators and sponsors. |  |  |
| **C** | **Ethical issues in physical activity and sport** | **RAG** | **MRI** |
| 1 | Conduct of performers. |  |  |
| 2 | Prohibited substances. |  |  |
| 3 | Prohibited methods (blood doping). |  |  |
| 4 | Drugs subject to certain restrictions (beta blockers). |  |  |
| 5 | Which type of performers may use different types of performance enhancing drugs (PEDs) with sporting examples. |  |  |
| 6 | The advantages and disadvantages for the performer of taking PEDs. |  |  |
| 7 | The disadvantages to the sport/event of performers taking PEDs. |  |  |
| 8 | Spectator behaviour (the positive and the negative effects of spectators at events). |  |  |
| 9 | Reasons why hooliganism occurs. |  |  |
| 10 | Strategies employed to combat hooliganism/ spectator behaviour. |  |  |
| **Chapter 6** | **Health and fitness- Paper 2** | | |
|  | **Physical, emotional and social health, fitness and well-being** | **RAG** | **MRI** |
| 1 | Linking participation in physical activity, exercise and sport to health, well-being and fitness, and how exercise can suit the varying needs of different people. |  |  |
|  | **The consequences of a sedentary lifestyle** | **RAG** | **MRI** |
| 2 | The consequences of a sedentary lifestyle. |  |  |
| 3 | Obesity and how it may affect performance in physical activity and sport. |  |  |
| 4 | Somatotypes. |  |  |
|  | **Energy use, diet, nutrition and hydration** | **RAG** | **MRI** |
| 1 | Energy use. |  |  |
| 2 | Nutrition – reasons for having balanced diet. |  |  |
| 3 | Nutrition – the role of carbohydrates, fat, protein and vitamins/minerals. |  |  |
| 4 | Reasons for maintaining water balance (hydration). |  |  |