

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

[Time: 3 Hours]

[Max. Marks: 100]

Basic Medical Sciences for Sports Physiotherapy – Paper II (RS-4)

Q.P. CODE: 8133

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

Answer All The Questions

10 X 10 = 100 Marks

1. Explain the importance of the neuro muscular systems in optimizing sports performance.
2. Outline the principles of motor learning and their relevance to improving sports performance.
3. Illustrate the relationship between improper biomechanics and the development of chronic shoulder pain in tennis players.
4. Compare and contrast two methods used to measure body composition, highlighting their strengths and limitations.
5. Explain the difference between aerobic and anaerobic energy production pathways. How do these pathways contribute to energy transfer in the body during different types of physical activities?
6. Outline an intervention plan for an injured athlete, integrating psychological techniques for anxiety, motivation, and well-being.
7. Explain the role and significance of NADA (National Anti-Doping Agency) and WADA (World Anti-Doping Agency) in ensuring fair play and clean competition in sports.
8. Design a personalized training protocol for a professional basketball player in the off-season. Incorporate at least four different principles of training. Explain how each principle addresses specific aspects of physical conditioning.
9. Examine how the principle of progressive overload can be beneficial in designing a training program for a professional soccer player who is in the recovery phase of a lower limb injury.
10. Explain Ergogenic aids, their advantages, mechanisms of operation, and fundamental ethical considerations.

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