Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination – 27-Oct-2026

[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. What is growth and maturation? Describe the concept of bio - banding in sports training optimization and injury risk reduction.

2. Explain the Kerbs cycle in detail.

3. Mention the anatomy of Serratus anterior muscle and how would you relate the biomechanical and patho mechanical role of Serratus anterior muscle in throwing.

4. What are the various phases of cricket bowling and explain in detail about the facts of back foot collapsing in cricket bowling.

5. Explain in detail about the mechanism of absorption of protein diet. Add a note on sources and clinical indication for protein diet.

6. Define doping. What is WADA and mention their purpose and violation of anti doping rules.

7. Define Deconditioning. Explain the signs of deconditioning during off season. Describe about the patella femoral knee pain and the exercises to prevent patella femoral knee pain.

8. Define fitness. Explain the principles of training for improving the extensibility of hamstring muscles.

9. Explain the hypothalamic response to heat stress and describe the various forms of heat transfer during exercise and severity of heat related illness.

10. Define ergogenic aids. Explain the substances related with increasing the performances in a marathon runner.

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