

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**Second Year Master of Physiotherapy Degree Examination – 12-Nov-2025**

**[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 neurophysiology of balance.
2. Discuss the importance of force system and application of lever system in sports with suitable examples.
3. Identify the psychological aspects of athletes and list the psychological behavioural symptoms after injury. Describe briefly any one of the symptoms.
4. Explain the anti-doping guidelines of WADA in sports.
5. Describe the physiological adaptation and benefits of high altitude training.
6. List the non-communicable diseases (NCDs). Outline the importance of prevention of NCDs through physical activity.
7. Compare and contrast the patho-mechanics of tendon and muscle at different stages of healing.
8. Develop exercise and dietary precautions to be taken in diabetic athletes during strength and conditioning.
9. List the fundamental principles of training and enumerate the components of exercise prescription for performance enhancement.
10. An athlete visits sports physiotherapist for strength and conditioning after 2 weeks of hamstring muscle strain. Discuss the periodization principles in implementing strengthening program. Add a note on exercises progression.

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