Rajiv Gandhi University of Health Sciences, Karnataka
I Year B.P.T. Degree Examination – APRIL 2015

Time: Three Hours   **Max. Marks: 100 Marks**

HUMAN PHYSIOLOGY (RS-3 & RS-4)
Q.P. CODE: 2702

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAYS (Answer any Two)   **2 x 10 = 20 Marks**

1. Explain the sliding filament theory of contraction. State Starlings law of force of contraction.
2. Describe the cardio-vascular and respiratory changes during exercise.
3. Name the ascending pathways. Trace the pathway for pain and fine touch.

SHORT ESSAYS (Answer any Twelve)   **12 x 5 = 60 Marks**

4. Explain the Wallerian degeneration
5. Define Anemia. Explain the clinical classification of Anemia
6. Explain the phases of cardiac cycle taking place during ventricular systole.
7. Draw a spirogram. Define the different lung volumes and write their normal values.
8. Functions of saliva
9. Differentiate between myelinated and non-myelinated nerve fibres
10. Define immunity. Briefly describe the types of immunity
11. Draw the structure of the Juxta glomerular apparatus. Write any three functions
12. Describe the body mechanisms by which it tolerates hot environment
13. List four methods of contraception in the males and females
14. Functions of cerebellum
15. Differentiate between Isotonic and Isometric contraction
16. Action of insulin
17. Explain the mechanism of impedence matching taking place in the middle ear

SHORT ANSWERS   **10 x 2 = 20 Marks**

18. Define chronaxie and rheobase
19. Define Lymph. List two functions
20. Define secondary active transport mechanism
21. Trace the visual pathway
22. Action of ADH
23. Define chloride shift
24. Structure of muscle spindle
25. Define motor unit.
26. Source of energy for muscle contraction
27. Define arterial blood pressure. Write its normal value

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