

Rajiv Gandhi University of Health Sciences, Karnataka  
First Phase MBBS Degree Examination – JULY 2015

Time: Three Hours

Max. Marks: 100 Marks

**PHYSIOLOGY-PAPER I**  
**(RS2 & RS3 SCHEME)**  
**QP Code: 1077**

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

**LONG ESSAYS**

**2 x 10 = 20 Marks**

1. Describe the coagulation process in detail. Add a note on tests for coagulation.
2. Explain the regulation of cardiac output.

**SHORT ESSAYS**

**10 x 5 = 50 Marks**

3. Conducting system of human heart
4. Coronary circulation
5. Lung surfactant.
6. Bohr effect and Haldane effect
7. Cyanosis
8. Macrocytic anemia.
9. Factors affecting glomerular filtration rate
10. Counter current multiplier system
11. Gastrin
12. Secondary active transport.

**SHORT ANSWERS**

**10 x 3 = 30 Marks**

13. Inulin clearance
14. Parasympathetic innervation of urinary bladder.
15. Chemotaxis
16. Eosinophil
17. Functional residual capacity
18. List forms of transport of Carbon dioxide in blood.
19. Enteric nervous system
20. Composition of bile
21. Conditioned salivary secretion
22. Body fluid compartments

# Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination – JULY 2015

Time: 3 Hrs.

[Max. Marks: 100]

## PHYSIOLOGY - II (RS2 & RS3)

QP Code: 1078

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

### LONG ESSAY

2 X 10 = 20 Marks

1. Describe the parts, connections and functions of cerebellum.
2. Describe the ovarian and endometrial changes during menstrual cycle. Explain their hormonal regulation.

### SHORT ESSAY

10 X 5 = 50 Marks

3. Role of hypothalamus in regulation of food intake
4. Components and functions of limbic system
5. Role of cortisol in stressful situation
6. Explain the action of insulin on carbohydrate metabolism.
7. Steps in thyroid hormone synthesis and their clinical applications
8. Mechanisms involved in accommodation reflex
9. Describe taste pathway.
10. Describe neuromuscular transmission in skeletal muscle.
11. Role of calcium in skeletal muscle contraction
12. What is core and shell temperature? Explain heat loss mechanisms.

### SHORT ANSWERS

10 X 3 = 30 Marks

13. Write the role of epididymis, seminal vesicle and prostate in reproduction.
14. Functions of CSF
15. Write differences between cardiac and smooth muscle.
16. Draw a sarcomere in relaxed and contracted state.
17. Three differences between superficial and deep reflexes
18. Functions, absorption of Aqueous humor and its applied aspect
19. Attenuation reflex and impedance matching
20. Draw a visual pathway.
21. Mention three hormones regulating blood calcium levels. State their mechanism of actions.
22. What is an aldosterone escape?

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