

Rajiv Gandhi University of Health Sciences, Karnataka
Post Graduate Degree Examination - APRIL/MAY 2015

[Time: 3 Hours]

[Max. Marks: 100]

MD - PHYSIOLOGY
PAPER – I (Revised Scheme)
Q. P. CODE: 7415

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

LONG ESSAYS

2 x 20 = 40 Marks

1. Discuss the evolution of respiratory system.
2. Describe various physical principles involved in optics or vision. Describe various refractive errors and their correction. Add a note on 'Reduced eye'.

SHORT ESSAYS

6 x 10 = 60 Marks

3. Contribution of Arthur C. Guyton to physiology
4. Gibb's Donnan equation
5. Apoptosis
6. Ultra filtration and dialysis
7. Antioxidants
8. Active transport mechanisms.

Rajiv Gandhi University of Health Sciences

Post Graduate Degree Examination – MAY 2015

Time: Three Hours

Max. Marks: 100 Marks

MD PHYSIOLOGY PAPER- II **(Revised Scheme)** **Q. P. CODE: 7416**

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

LONG ESSAY

2 X 20 = 40 Marks

1. Explain how plasma albumin determines fluid movement across capillaries. Name four other functions of plasma proteins
2. What are baroreceptors? Explain the response of baroreceptors to changes in arterial pressure.

SHORT ESSAY

6 X 10 = 60 Marks

3. Describe the hemodynamics of blood flow through the kidneys.
4. Reabsorption of electrolyte in the renal tubules.
5. Draw the oxygen hemoglobin dissociation curve. Explain the significance of its shape.
6. Discuss the neural organization of respiratory control.
7. Describe the control of gastric emptying.
8. Third Stage of Deglutition.

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Post Graduate Degree Examination – MAY 2015

Time: Three Hours

Max. Marks: 100 Marks

MD PHYSIOLOGY PAPER- III
(Revised Scheme)
Q. P. CODE: 7417

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

LONG ESSAYS

2 x 20 = 40 Marks

1. Describe the pain pathways and the endogenous analgesic systems.
2. Discuss the hormonal regulation of growth.

SHORT ESSAYS

6 x 10 = 60 Marks

3. Compare the mechanism of excitation - contraction coupling in skeletal and smooth muscles.
4. Explain the strength duration curve.
5. Discuss the effects of complete spinal transection at different levels and recovery from it.
6. Explain the neural circuits in the basal ganglia and their relation to clinical disorders.
7. Discuss the pathophysiology of Addison's disease.
8. Describe the hormones produced by the kidneys.

Rajiv Gandhi University of Health Sciences, Karnataka
Post Graduate Degree Examination – MAY 2015

Time: Three Hours

Max. Marks: 100 Marks

MD PHYSIOLOGY PAPER- IV
(Revised Scheme)
Q. P. CODE: 7418

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

LONG ESSAYS

2 x 20 = 40 Marks

1. Describe the functions of placenta.
2. Discuss the physiology of circadian rhythms.

SHORT ESSAYS

6 x 10 = 60 Marks

3. Describe the physiology of puberty and disorders.
4. Explain the accommodation reflex.
5. Discuss the physiology of middle ear.
6. Describe the role of yoga in prevention and management of cardiovascular disease and diabetes mellitus.
7. Discuss the role of hypothalamus in body temperature regulation.
8. Explain the physiology of parturition.
