Rajiv Gandhi University of Health Sciences, Karnataka

Post Graduate Degree Examination – MAY 2017

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

MD BIOCHEMISTRY

(Bio-organic chemistry, biophysical chemistry and biochemical techniques)

PAPER- I

(Revised Scheme)

Q. P. CODE: 7315

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

LONG ESSAYS **2 x 20 = 40 Marks**

1. Explain the structure function relationship of haemoglobin. Add a note on related disorders.

2. What is human genome project? Describe the medical applications of human genome sequence information.

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Eicosanoids and their importance

4. Principle and applications of gene therapy in medicine

5. Ion selective electrodes

6. Role of radioisotopes in medicine

7. Principle and applications of ion exchange chromatography

8. Write the principle and applications of ELISA

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Rajiv Gandhi University of Health Sciences, Karnataka

Post Graduate Degree Examination – MAY 2017

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

MD BIOCHEMISTRY
(Intermediary metabolism and biochemical genetics)
PAPER- II
(Revised Scheme)
Q. P. CODE: 7316

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

LONG ESSAYS **2 x 20 = 40 Marks**

1. Explain glycogen metabolism and its related disorders.

2. Explain various methods to study intermediary metabolism.

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Blood glucose regulation.

4. Purine catabolism and Hyperuricemia

5. Phenylketonuria and the methods of its detection

6. Explain the formation of various specialised products of glycine.

7. DNA repair mechanisms

8. Reverse transcriptase

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – <<>>

[Time: 3 Hours] [Max. Marks: 100]

BIOCHEMISTRY

PAPER – III (Revised Scheme)

Q.P. CODE: 7317

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. Enunciate the principles of Michaelis Menten Kinetics of Enzyme action. Derive a linear form of the Michaelis Menten equation to obtain the Lineweaver-Burk Plot. Explain the utility of such a plot.
2. Describe the absorption, functional roles, deficiency and toxicity manifestations of Calcium. How is plasma calcium level regulated?

SHORT ESSAYS **6 X 10 = 60 Marks**

3. Biochemical aspects of Coagulation.
4. Role of enzymes in the respiratory chain.
5. Dietary fibre.
6. Role of Zinc in health and disease.
7. Evaluation of quality of dietary proteins.
8. Oxidoreductases.

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Rajiv Gandhi University of Health Sciences, Karnataka

Post Graduate Degree Examination – JUNE 2017

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

MD BIOCHEMISTRY
(Clinical Biochemistry)
PAPER- IV
(Revised Scheme)
Q. P. CODE: 7318

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

LONG ESSAYS **2 x 20 = 40 Marks**

1. How will you biochemically evaluate a patient with anaemia?

2. Explain in detail the biochemical evaluation of renal function.

SHORT ESSAYS **6 x 10 = 60 Marks**

3. Write briefly on biochemical findings in thalassemia.

4. Briefly explain thyroid function tests.

5. Monoclonal antibodies – briefly explain application of immunological techniques.

6. Classify porphyrias with clinical features.

7. Explain various mechanisms of conversion of proto-oncogenes to oncogenes with examples.

8. Lipoprotein (a).

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