Rajiv Gandhi University of Health Sciences, Karnataka

Post Graduate Degree Examination – JUNE 2016

57

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. Describe the blood buffers. Explain the interpretation of arterial blood gas analysis in various acid base disorders.
2. Explain structure function relationship of proteins with suitable examples.

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

3. Explain the principle and applications of immunoelectrophoresis.
4. Explain the principle and applications of western blot technique.
5. Ultra-centrifugation – principle and applications
6. Ion selective electrodes
7. High pressure liquid chromatography
8. Applications of radioactive isotopes in diagnosis

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Rajiv Gandhi University of Health Sciences

M.D. Degree Examination – JUNE 2016

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

BIOCHEMISTRY

PAPER – II (Revised Scheme)

Q.P. CODE : 7316

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. Describe Eukaryotic protein biosynthesis. Add a note on the inhibitors.
2. Discuss regulation of blood glucose level in detail

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

3. Metabolic fate of Glycine
4. Significance of HMP shunt
5. Important products from tyrosine
6. Mutations – types and effects
7. Metabolism of Adipose tissue
8. B-oxidation of saturated 16 Carbon fatty acid

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Rajiv Gandhi University of Health Sciences

59

M.D. Degree Examination – JULY 2016

[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 ESSAY **2 X 20 = 40 Marks**

1. Describe metabolism of calcium and various factors influencing its homeostasis. Add a note on calmodulin.
2. Describe the structure, synthesis of hemoglobin.

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

3. Enzyme inhibitions: Mechanism and application of any two.
4. Wilson's disease.
5. Balanced diet.
6. Glycemic index.
7. Biotrasformation.
8. Name different types of collagen and enumerate any three disorders of collagen maturation.

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Rajiv Gandhi University of Health Sciences

60

M.D. Degree Examination – JULY 2016

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

BIOCHEMISTRY

PAPER – IV (Revised Scheme)

Q.P. CODE : 7318

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 various molecular changes leading to atherosclerosis. Explain the risk assessment and biochemical basis of the management of such patients.
2. Classify and explain the different types of Proteinurias. Add a note on the newer methods of estimation of Glomerular function.

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

3. Lactic acidosis.
4. Human leucocyte antigens and association with diseases.
5. Lysosomal storage diseases.
6. Biochemical basis of hypertension.
7. Diagnostic enzymes in hepato biliary diseases.
8. Criteria of selection of assay procedure.

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