

Rajiv Gandhi University of Health Sciences 56
M.D. Degree Examination – OCTOBER 2015

[Time: 3 Hours]

[Max. Marks: 100]

BIOCHEMISTRY

PAPER – I (Revised Scheme)

Q.P. CODE : 7315

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 the principles and applications of Radio immuno assay.
2. Describe DNA sequencing. How is recombinant DNA technology useful in the molecular analysis of Disease?

SHORT ESSAY

6 X 10 = 60 Marks

3. Chemiluminescence
4. Iso electric focusing
5. Artificial sweeteners
6. Name the Polyunsaturated fatty acids. Give their clinical importance and enumerate the sequence of reactions involved in their oxidation
7. Structural organization of Insulin
8. Turbidimetry

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

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. Answer all questions

LONG ESSAYS

2 x 20 = 40 Marks

1. Describe the sources, transport, toxicity and detoxification of ammonia. Add a note on disorders related to urea synthesis.
2. Describe protein synthesis and post-translational modifications in eukaryotes.

SHORT ESSAYS

6 x 10 = 60 Marks

3. Regulation of Glycogenolysis
4. Significance of HMP pathway
5. HDL metabolism
6. Compounds derived from Tryptophan
7. Trans-methylation reactions
8. Salvage pathways of nucleotide metabolism

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

Time: Three Hours

Max. Marks: 100 Marks

MD BIOCHEMISTRY
(Enzymes, Nutrition and specialized tissues)
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. Describe the structure, formation and biochemical actions of insulin.
2. Outline the methods for assessment of nutritional quality of a protein and explain biochemical and hormonal changes in protein energy malnutrition.

SHORT ESSAYS

6 x 10 = 60 Marks

3. Biochemical role of ascorbic acid.
4. Iron absorption and transport.
5. Specific dynamic action of foods.
6. Competitive inhibition.
7. Pyridoxine – biochemical functions and deficiency.
8. Trans fat.

Rajiv Gandhi University of Health Sciences
M.D. Degree Examination – OCTOBER 2015

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[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 role of the clinical laboratory in the diagnosis and management of diabetes mellitus. What are the biochemical causes of the chronic complications seen in the condition?
2. Discuss the laboratory workup of a patient with jaundice with ascites. Add a note on the principle of phototherapy administered in neonatal jaundice.

SHORT ESSAYS

6 X 10 = 60 Marks

3. Hypokalemia.
4. Laboratory workup of a patient with thyroid dysfunction.
5. Receiver operating characteristic (ROC) curve of laboratory assay.
6. Point of care testing.
7. Onco-fetal proteins.
8. Methemoglobinemias.

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