Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – JULY 2015

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

BIOCHEMISTRY (RS2 & RS3)

QP Code: 1079 – Paper I (Max.Marks:50)

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

Use separate answer books for section A and Section B

LONG ESSAYS **1 x 10 = 10 Marks**

1. Describe the β-oxidation of fatty acids. Give its energetics and explain the regulation of acetyl CoA in our body.

SHORT ESSAYS **5 x 5 = 25 Marks**

2. How is glycogen digested and absorbed? Describe glycogenolysis in the liver.
3. How are bile acid synthesized? Mention **two** functions of bile acids.
4. Describe the conversion of methionine to cysteine. Add a note on homocystinuria.
5. Outline the synthesis of epinephrine and give its functions.
6. Give the coenzyme role of pantothenic acid and its importance

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Denaturation of proteins.
8. Uncouplers of oxidative phosphorylation.
9. Reverse cholesterol transport.
10. Bonds stabilizing protein structure.
11. UDP-Glucuronic acid.

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First Phase MBBS Degree Examination – JULY 2015

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

BIOCHEMISTRY (RS2 & RS3)

QP Code: 1080 – Paper II (Max.Marks:50)

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

Use separate answer books for section A and Section B

LONG ESSAYS **1 x 10 = 10 Marks**

1. Draw neat diagram of Watson Crick model of DNA, explain its characteristics and the bonds that play a role in the stability of DNA structure.

SHORT ESSAYS **5 x 5 = 25 Marks**

2. Describe salvage pathway of purine synthesis and its significance.
3. What are porphyrias? Mention four porphyrias with the defective enzyme.
4. Explain the role of kidneys in acid base regulation.
5. What is a balanced diet? Discuss the components of a balanced diet.
6. What are the sources of dietary fibers? Discuss the importance of it in nutrition. Outline the functions of proteins.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Point mutation.
8. Hormones that regulate water balance
9. SDA.
10. Ribosomal RNA.
11. Define anti oxidants and give two examples.

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