

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**(A DEEMED TO BE UNIVERSITY)****M.B.B.S. PHASE - I Degree Examination - January-2010**

Time : 3 Hrs.

(Max. Marks : 100)

BIOCHEMISTRY**Use separate answer books for Section -A and Section -B.***Your answers should be specific to the questions asked.**Draw neat labeled diagrams wherever necessary.***SECTION – A (Max. Marks: 50)****LONG ESSAY****1 X 10 = 10 Marks**

1. Write in detail the various reactions by which fatty acids are oxidized in the body.

SHORT ESSAY**5 X 5 = 25 Marks**

2. How is glycogen metabolized in the body. Add a note on glycogen storage disorders.
3. Which is the optically inactive amino acid. Write in detail the compounds which can be synthesized from this amino acid.
4. Enumerate the causes of hypoglycemia. What laboratory tests can be done to reach a diagnosis regarding the cause of hypoglycemia.
5. Discuss the factors regulating enzyme action.
6. Anti oxidants

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

7. Negative acute phase reactions
8. Detoxication by conjugation
9. Glycated hemoglobin
10. Metabolic role of peroxisomes
11. Competitive Inhibition

SECTION - B (Max. Marks: 50)**(Use separate answer book)****LONG ESSAY****1 X 10 = 10 Marks**

1. Give a diagrammatic representation of pyrimidine ring indicating the source of carbon and nitrogen. Write in detail the De novo synthesis of pyrimidines adding a note on the clinical disorders.

SHORT ESSAY**5 X 5 = 25 Marks**

2. Describe the tests to assess glomerular function
3. Describe the synthesis of HEME. Add a note on hepatic porphyrias
4. Post transcriptional modifications
5. Discuss the causes and laboratory diagnosis of metabolic acidosis
6. Role of vitamin D in regulating serum calcium.

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

7. Sick cell Haemoglobin
8. Biochemical functions of copper
9. Dietary fibres
10. Mutation
11. Salvage pathway.

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BIOCHEMISTRY

Use separate answer books for Section -A and Section -B.

Q.P CODE :105 – SDUU, Section-A (Max. Marks : 50)

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Marks

1. Define glycogenesis and glycogenolysis. Describe Glycogenesis in detail. How is it regulated.

SHORT ESSAY

5 X 5 = 25 Marks

2. Types of enzyme inhibition
3. What are the ketone bodies. Explain ketogenesis. How they are important
4. Selenocysteine
5. Uncouplers of oxidative phosphorylation
6. Cyclic AMP

SHORT ANSWERS

5 X 3 = 15 Marks

7. Homocystinurias
8. Detoxification by conjugation
9. Adrenal cortical hormones
10. Antioxidants
11. Tumour markers

Q.P CODE :106 – SDUU, Section-B (Max. Marks : 50)

(Use separate answer book)

LONG ESSAY

1 X 10 = 10 Marks

1. Describe the synthesis and catabolism of HEME, and genetic disorders of HEME metabolism.

SHORT ESSAY

5 X 5 = 25 Marks

2. What are the steps of protein biosynthesis, and explain each
3. Kidney function tests
4. Vitamin B6 and its biochemical reactions
5. Metabolic acidosis and alkalosis
6. transfer [t] RNA structure and functions

SHORT ANSWERS

5 X 3 = 15 Marks

7. Lactose intolerance
8. Genetic code
9. Zinc
10. Gout
11. blood buffers

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