

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

M.B.B.S. PHASE – I Degree Examination – July -2014

Time : 3 Hrs.

[Max. Marks : 100]

BIOCHEMISTRY

Q.P Code : RS -105

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY (Answer any 2 only)

2 X 10 = 20 Marks

1. Chemistry sources, biochemical functions. Deficiency manifestations of pyridoxine.
2. What is enzyme inhibition? Explain various types of enzyme inhibition with examples.
3. What are the key enzymes of glycogen synthesis and glycogenolysis? How are they regulated? List out various glycogen storage disorders. Add a brief note on von gierke's disease.

SHORT ESSAY (Answer any 10 only)

10 X 5 = 50 Marks

4. What are phenyl ketonuria? How is it diagnosed. mention the treatment modalities of the disorder.
5. Describe heme synthesis.
6. Name the various plasma proteins. What are the functions of alpha 1 antitrypsin? How smoking affects the function of alpha 1 antitrypsin? what are its adverse effects?
7. What are multi enzyme complexes? Give two examples. Explain any one.
8. What are the various post transcriptional modifications? Describe splicing. Name the disorders that are as a result of defective splicing.
9. Describe the sources, functions, and deficiency manifestations and age related daily requirements of calcium.
10. What are salvage path ways? What is the significance of these pathways. Describe the disorders associated with enzyme deficiencies of salvage path ways.
11. What is anion gap? What is its clinical significance in metabolic acidosis and metabolic alkalosis.
12. Restriction length polymorphism.
13. Enzyme specificity.
14. Thyroid function tests.
15. Inhibitors of electron transport chain.

SHORT ANSWERS

10 X 3 = 30 Marks

16. Beri beri.
17. Lysosomal storage disorders.
18. Real time PCR.
19. Describe in brief about G Protein coupled receptors.
20. C-peptide.
21. Biochemical functions of vitamin K.
22. Galactosuria.
23. Wobble hypothesis.
24. Epimers.
25. Ketogenic and glucogenic amino acids.