

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

Post Graduate Degree Examination – April / May - 2014

Time : 3 Hrs.

[Max. Marks : 100]

M.D BIOCHEMISTRY

PAPER - I

Q.P Code :1301

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 20 = 40 Marks

1. Explain sub-cellular fractionation. Name the major intra cellular organelles and explain their function.
2. Describe the different methods of determining the molecular weight of proteins.

SHORT ESSAY

6 X 10 = 60 Marks

3. Iso electric focusing.
4. Glycosaminoglycans.
5. Henderson – Hasselbach Equation & Blood buffers.
6. Flame photometry.
7. Miscelles
8. Blotting techniques.

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M.D BIOCHEMISTRY

PAPER - II

Q.P Code :1302

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Draw neat labelled diagrams wherever necessary.

LONG ESSAY

2 X 20 = 40 Marks

1. Describe the biosynthesis of prostaglandins. Enumerate the biological actions and clinical applications.
2. Describe the biosynthesis and degradation of catecholamines. Discuss the disorders associated with these hormones.

SHORT ESSAY

6 X 10 = 60 Marks

3. Apo lipoproteins.
4. Probes used in recombinant technology.
5. Human genome project.
6. Propionate metabolism.
7. Eukaryotic DNA repair.
8. Post-translation with these modifications.

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PAPER - III

Q.P Code :1303

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LONG ESSAY

2 X 20 = 40 Marks

1. Explain with suitable examples, catalytic strategies employed by the enzymes to catalyse specific reactions.
2. Write about the metabolic role of adipose tissue in the human organism and add a metabolic changes in obesity.

SHORT ESSAY

6 X 10 = 60 Marks

3. Oxidoreductases.
4. Omega 3 fatty acids.
5. Muscle proteins.
6. Dietary management of diabetes mellitus in india.
7. Homeostasis and deficiency of iron.
8. Kinetics and biomedical importance of competitive inhibitors.

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M.D BIOCHEMISTRY

PAPER - IV

Q.P Code :1304

*Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.*

LONG ESSAY

2 X 20 = 40 Marks

1. Discuss the biochemical basis of Atherosclerosis. Explain the rationale of lifestyle changes that are prescribed in such conditions. Add a note on the non enzymic markers of Acute Myocardial Infarction.
2. Describe the mechanisms of regulation of acid base homeostasis in the body. Add a note on measurement of plasma bicarbonate.

SHORT ESSAY

6 X 10 = 60 Marks

3. Oncofetal antigens as tumour markers.
4. Laboratory diagnosis of malabsorption syndrome.
5. Enzymes in diagnosis of hepatobiliary diseases.
6. Evaluation of a new laboratory assay method.
7. Tubular function assessment.
8. Molecular basis of diabetic complications.

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