SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

Time : 3 Hrs. **Ph.D Examination December-2012** **Max. Marks : 100]**

Biochemistry

Paper – I

QP Code: 1301

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

(Each question 10 marks) **10 X 10 = 100 Marks**

1. What is review of literature? How does it influence quality of research work?
2. Explain different styles of bibliography
3. Explain randomized clinical trials. In what kind of situation it is adopted? What are its merits?
4. Name ten considerations in the Nuremberg code and write briefly about them.
5. Explain different types of sampling in clinical research.
6. What are the different considerations that decide choice of statistical test applied?
7. Discuss different issues to be taken into account while writing a scientific paper.
8. Write an assay on evidence based medicine
9. What are the functions of Institutional ethics committee?
10. What are the components of research proposal submitted for grant? Write briefly about each one of them.

* * *

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

Time : 3 Hrs. **Ph.D December 2012 Examination** **Max. Marks : 100]**

Biochemistry

Paper – II

QP Code : 1302

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

(Each question 10 marks) **10 X 10 = 100 Marks**

1. Define Chromatography. Classify chromatography based on separation principles. Explain HPLC.
2. Define Diabetes Mellitus. Classify Diabetes Mellitus. Enumerate the long term complications. Add a note on tests available in this day, in the state of art labs, for diagnosis and prognosis of DM.
3. Classify enzymes with examples. Add a note on the kinetics of two substrate reactions.
4. Enumerate the various techniques used to purify proteins. Add a note on characterization of proteases.
5. What is meant by higher levels of proteins organization. Explain how protein stability is maintained. What is a protein stability curve?
6. What is spectroscopy? Explain the principle of circular polarization of light. Add a note on its application to biological molecules.
7. Name the components of the Mass spectrometer. Discuss the principle involved in mass spectrometry.
8. Define electrophoresis. Explain any four factors affecting the rate of migration. Discuss 'PAGE'.
9. What is density gradient separations. Explain in detail the separation of subcelluar organelles. Add a note on marker enzymes.
10. Briefly discuss in general the host tissue responses to bacterial and viral diseases.

* * *