सिद्धार्थ विश्वविद्यालय, कपिलवस्तु, सिद्धार्थनगर

Syllabus of Pre-Ph.D. course work
Subject: MATHEMATICS

Paper-First : Research Methodology

Section-A

- Defining and formulating the research problem, selecting the problem, literature review; primary and secondary sources – reviews, treatise, monographs, patents, web as source
- Data collection and analysis.
- Writing research articles, bibliography, referencing and foot notes, being acquainted with review of published articles and books in the field research work under taken (mathematical reviews, zentralblatt, etc.), impact factor of journals, indexing.
- Ethical issues, copyrights, royalty, intellectual property rights and patent law, plagiarism, citation.

Section-B

- Working knowledge of LaTeX and Beamer, Familiarity with at least one Mathematical software out of the following: Scilab/MATLAB, R/MATHEMATIKA, Working knowledge MathSciNet, JSTORE and other online journals.

References:

1- Garg, B. L., Karadia, R., Agarwal F. and Agarwal, U. K., 2002. An introduction to Research Methodology, RBSA Publishers.
2- Kothari C. R. , 1990, Research Methodology: Methods and Tecniques. New Age International 418p.
3- Sinha, S. C., and Dhiman, A. K., 2002, Research Methodology: Ess Ess Publications. 2 Volumes.
4- Trochim, W. M. K., 2005 Research Methods: The Concise knowledge base, Atomic Dog Publishing, 270p.
5- Wadehra, B. L., 2000, Law relating to patents, trademarks copyright designs and Geographical indications, Universal Law Publishing.
6- Day, R. A., 1992, How to Write and Publish a scientific paper, Cambridge University Press.
7- Fink, A., 2009, Conducting Research Literature Reviews: from the internet to paper, Sage Publications.
8- Leedy, P. D., and Ormrod, J. E., 2004, Practical Research: Planning and Design, Prentice Hall.
9- Satarkar, S. V., 2000, Intellectual Property Rights and Copyrights, Ess Ess Publications.

Paper-Second : Basic Computer Application

Unit-One
Computer Fundamentals,
What is Desktop PC System?
Working of a Monitor,
Keyboard,
Mouse,
Hard Disk,
Compact Disk and Printer

Unit-Two
Working with the Control Panel
Customize your Desk top
Working with files and folders

Unit-Three
Features of MS-Word
Working with MS-Word, Formatting documents and texts

Unit-Four
Introduction to Excel and Power Point Presentation

Unit-Five
Working on Internet and e-mail