

Syllabus- Ph.D. Course Work Mathematics

Ist Semester 2016-17 onwards

3 Credits/
Max. marks=50
Min. pass marks=25

Computer Application

UNIT – I: Basics of Computer – Characteristics of Computer, Evolution of computers, computer generations, Basic computer organization; System software, application software, introduction to operating system, MS-windows.

UNIT – II: Using Internet for research – The Internet: quick look, what is internet, major internet services, working of internet, electronic mail, www, downloading super tools for better computing Internet and the society, searching the keyword search engines, interaction, News and multimedia

UNIT – III: Word processing with MS word, starting MS word, MS environment, working with word documents, working with text, working with tables, checking spelling and grammar, printing document, spreadsheets and MS Excel, starting MS Excel, MS Excel Environment, working with Excel, workbook, working with work, Making presentation with MS Power point, MS Power point Environment, designing presentations.

UNIT – IV : LATEX – Typesetting Mathematical Text with LATEX: Sample Document, Type style, Environments, Lists, Centering, Tables, Verbatim, Vertical and Horizontal Spacing, Equation Environments, Fonts, Hats and Underlining, Braces, Arrays and Matrices, Customized Commands, Theorem-like Environments, Math Styles, Document classes and the overall structure, Titles for Documents, Sectioning Commands, Packages, Inputting Files, Inputting Pictures, Making a Bibliography, Making an Index, Slides

UNIT – V : MATLAB – Input output of data from Matlab command. File types. Creating, saving and executing the script file. Creating and executing functions file. Working with files and directories. Matrix manipulation. Creating vectors. Arithmetic operations. Relational operations. Logical operations. Matrix functions. Determinant of matrix. Graphics: Two and three dimensional plots. Subplot to Layout multiple graphs. Matlab plotting tools. Mesh and surface plots. Handle Graphics – Saving and printing.

Reference books:

1. Fundamentals of Computers by Rajaraman, Prentice Hall India Pvt. Limited.
2. The Internet: A users guide K. L. James (PHI publication).
3. Internet Research skill Niall O Dochartaigh (SAGE publication)
4. Microsoft Office Word : Complete Concepts and Techniques by Gary B. Shelly, Thomas J. Cashman, Misty E. Vermaat, Cengage Learning Inc.

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M. D. D. D.
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24/6/2016
Date
24/6/16

5. How to Do Everything with Microsoft Office Excel by Guy Hart - Davis, McGraw Hill
6. Learning Microsoft PowerPoint by Catherine Skintik, Pearson Education.
7. LATEX, Laslie Lamtort, Addison Wesley publication company (1994).
8. Learning LATEX. Society for Industrial and Applied Mathematics, David F. Griffiths, Desmond J. Higham, Philadelphia (1997).
9. Getting Started with MATLAB: A Quick Introduction for Scientists and Engineers by Rudra Pratap, Oxford University Press, NY.

Pravin Varma
24/6/16

A. Venkatesh

Devi
24/6/16

M. Dhruv
24/6/16