# B.Com Information Technology Syllabus (WEF 2013-14) Semester I

#### Objectives:

This course will enable the student to gain an understanding of the core concepts and technologies which constitute Information Technology.

# I Information Technology-An Introduction

Marks:5 & Lectures 4

Definition, Application (Science and Engineering, Business & Commerce, Education, Governance, Medicine, Entertainment)

#### II Data

#### Marks 20 & Lectures 15

- Data and Information: Definition, Types of data, Qualities of Information
- Data Representation: Character formats- ASCII, Unicode (Definition, Adding regional
- languages, Phonetic keyboards)
- Data Organization : Directory structure , File formats and Compression (Text , Audio , Image
- Data Backup: Techniques, Scheduler, Online backup. Advantages
- Device Interfaces and Data Storage: Data device Interface access methods (USB, IDE/SATA),
- Optical memory (Blue ray ), Flash memory (USB Sticks, Memory Cards, SD, MMC, Micro SD ) ,Magnetic Memory (External disks ) , New Devices (Solid state drives)

# III Software: System and Applications

Marks:25 & Lectures 20

- Relationship between Hardware and Software
- Programming Languages: Low level, High level, Translators
- System Programs: Operating systems: Operating systems
  - Definition and functions of operating system Examples of operating System
  - (Windows, Linux, Online OS, Virtual OS, Comparison), Multi boot systems
  - (disk partitions and logical drives )Directory Structure : System directories , Users (administrator, limited rights user and guest), User directories (directory permission)
  - Services, drives and hardware interfaces
- **Application Programs** 
  - o Definition, Examples
  - o Introduction to Mathematical Computation Packages
  - o Human computer interaction (HCL)

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#### IV Multimedia

### Marks:16 & Lectures 12

- Introduction
  - o Definition, Elements of Multimedia,
  - o Applications of multimedia Education, Entertainment, Business Communications, Knowledge Transfer, Public access
- Process of multimedia production
- Various file formats of text, audio, video, graphics and animation
- File compression techniques, web based multimedia
- Authoring tools, Codec's, Conversion, Compression, Transmission
- Animations -Tweening, Morphing in multimedia with examples.

#### **II E-Commerce**

#### Marks:18 & Lectures 13

- Introduction
  - o Definition, Scope of E-Commerce, Hardware requirements, ECommerce and Trade Cycle, Electronic Markets, Electronic Data Interchange and Internet Commerce, Business to Business E-Commerce, Business to Consumer E-Commerce.
- Electronic Payment Systems
  - o Types of Electronic Payment Systems Digital Token Based Electronic Payment System - Smart Cards - Credit Cards - Risk in Electronic Payment Systems
- E-Retail
  - o Shopping Cart, Examples( eBay, Amazon , music-istore)
- E-Banking
  - o Online banks, Phishing, Security
- M-Commerce
  - o Definition, Usage, Security

# VI Social and Ethical issues in I.T

Marks:16 & Lectures 11

- Computer Ethics
- Ten commandments
- Intellectual Property
- Intellectual property rights', plagiarism, fair use, software licensing, Piracy
- Freeware and Open source software

## Reference Books:

- L 'O' Level made simple "introduction to ICT resources" by Satish Jain, Shashank Jain, Shashi Singh & M. Geetha Lyer, BPB publication.
- 2 Coputer fundamentsals fourth edition by Pradeep K. Sinha and Priti Sinha BPB publications

- 3. Information Technology The breaking wave by Dennis Curtin Tata McGraw-hill edition
- Computer Fundamentals by S.N. Akhter.
   Frontiers of Electronic Commerce Ravi Kalakota & Andrew B Whinston, Pearson Education.
   Multimedia in practice, technology & applications, Judith jeffcoate, PHI
- 7- 4. Multimedia making it work, Tay Vaughan, 3rd edition, Tata McGraw-Hill

# Web references

- 1. www.moodle.org
- www.wikipedia.org
   http://carbon.cudenver.edu/~mry

# B.Com. Information Technology Practical syllabus Semester I

Objectives:
To equip students with the healthy practices and efficient use of information technology services, tools and modern devices.

Practical No.	Topics	Hours
1.	Operating System Basic  Installation of Operating System (Demonstration only)  Demonstrate features of any MS Windows based OS and any of the Linux flavor  Identification of Directories  Setting up computer  Add a printer  Check device drivers  Installation software	6 hours
	Users and administrative rights for installation	
2.	<ul> <li>Applications of IT and Unicode</li> <li>Check up sites of E-governance (calculate income tax, find voter id details</li> <li>Enable computer to support regional language, add Keyboard, Use onscreen keyboard, install phonetic keyboard, type the national anthem using Unicode</li> </ul>	2 hours
3.	<ul> <li>Advanced web search and translation services</li> <li>Web search, image search</li> <li>Seach only for pages that contain (ALL the search terms</li> <li>contain the exact phrase you type, contain at least one of the words you type, do NOT contain any of the words you type, written in a certain language, created in a certain file format like ppt, pdf, rtf, doc, xls)</li> <li>Advanced search operators: Include search ("+" search), synonym search, OR search, Domain search, Numrange search, other advanced search features (Google, Local language, Technology Search, Date, Occurrences, Domains, Safe search)</li> <li>Use Online translators and transliteration services</li> <li>Multiuser Google docs</li> <li>Create documents, spreadsheets and presentations online</li> <li>Share and collaborate in real time</li> <li>Safely store and organize your work</li> <li>Control who can see your documents</li> </ul>	2 hours

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4.	Multimedia  Image processing (resize, crop, grey scale, red-eye correction, common effects, rotation/flips, stitch images)  Audio processing (trim audio, change tempo, left & right channels)  Video trimming  Upload to flicker, picasa, youtube, wikimapia marking, edit wikipedia articles	4 hours
5.	Commerce     Attempt to purchase a product online from any E-Commerce Site. Proceed till payment gateway. Check digital certificates (such as ebay.in and amazon.com)      Write a review of an E-Commerce Site visited include: Site description, Site Design, ease in navigation, process for purchasing items, security, privacy, compare with competitors.customer service, best features of site etc      An Ecommerce site case study: Include     Target market/audience: who uses this service?     Revenue model: where does the money come from?      Competitive environment: who else is competing in this market, or who might enter the market and threaten this company's position?      Competitive advantage analysis: how is your case company attempting to gain an advantage: competing on cost? differentiation?      How are they promoting their products in the marketplace?      How have they been doing - financial results if available?	4 hours
6.	MS Word     Text formatting, justified alignment, font size, line spacing, bullets, change case, superscripts, subscripts     Page setup (margins, page size, page layout) for printing     Password protection, possible file formats, spell check, thesaurus, word count.      Mail merge, footnotes, headers and footer, different headers on different pages, page boarders, page break and section break.	2 hours

	<ul> <li>Copy/delete/move (Keteyboard shortcuts ctrl-a, ctrl-c, ctrl-v, ctrlx ctrl-j)</li> <li>Inserting tables, pictures, shapes, charts, drawing, mathematical equations and special symbols</li> </ul>	
7.	<ul> <li>MS Excel</li> <li>Invoking worksheet, Entering data, editing worksheet</li> <li>Sorting, formulas, Inserting charts, freezing titles</li> <li>Page layout, (Margins, orientation, page-size, set print area, print titles)</li> <li>Cross sheet references</li> </ul>	2 hours
	Data ( Get external data / import data, sort and filter, remove duplicates, data validation during entry )	
8.	<ul> <li>Ms Power point</li> <li>Creating slides, Formatting, sorting</li> <li>Animation, Slide master</li> </ul>	2 hours

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