Management Information Systems-I [MB-103] Credits : 4

## [1] Information Technology concepts: [4L]

Data v. information, Classification of hardware and software System software & Application software, open source software Operating system concepts IT resources.

# [2] Systems concepts: [10L]

Systems, components of a system, interfaces & boundaries, environment of a system Types of Systems Information system as a system, CBIS Types of CBIS (brief descriptions and their interrelationships/hierarchies): Office Automation System(OAS), Transaction Processing System(TPS), Management Information System(MIS), Decision Support Systems (DSS), Executive Information System(EIS), Knowledge based system, Expert system. Systems Development Life cycle(SDLC) Life cycle models: Waterfall model, Prototyping model, Spiral model

## [3] Office Automation: [12P]

[a] Word Processing software (e.g. MS-Word/openoffice.org)
Creating and editing documents.
Mail merge.
[b] Spreadsheet application (e.g. MS-Excel/openoffice.org)
Creating and editing spreadsheets.
Drawing charts.
Using Functions: text, math & trig, statistical, date & time, database, financial, logical, information
Data analysis – sorting data, filtering data (AutoFilter , Advanced Filter), data validation, what-if analysis (using data tables/scenarios), creating sub-totals and grand totals, pivot table/chart, goal seek/solver.
[c] Presentation software (e.g. MS-Powerpoint)
Creating and editing presentations.

Applying slide background, images, etc.

Adding slide transition effect, animation effects, slide timings.

[d] Email

## [4] Data communication & Networking [4L]

[a] Need for computer networking, components of a data communication system, direction of data flow(simplex, half-duplex, full-duplex)

[b] Types of networks: LAN, MAN, WAN; concepts of Internet, Intranet, Extranet, WWW.

[4L]

[c] Network topology, transmission media.

[d] Applications of networking in business and society: email, social networking, telemedicine, etc.

### [5] E-commerce / E-business

[a] Overview, Definitions, Advantages & Disadvantages of E-commerce

[b] Business models of e-commerce: models based on transaction party (B2B, B2C,B2G, C2B, C2C, E-Governance), models based on revenue models

[c] Risks of e-commerce and security measures

### [6] Threats to Computer systems and control measures [3L]

Concepts of threats: Virus, hacking, phishing, spyware, spam, physical threats (fire, flood, earthquake, vandalism).

Concepts of security measures: firewall, encryption.

# [7] Real Time Application in Business : [3L]

Types of Real Time Systems, Distinction between Real Time, On – line and Batch Processing System. Real Time Applications viz. Railway / Airway / Hotel Reservation System, ATMs, EDI Transactions - definition, advantages, examples; Electronic Fund Transfer (EFT).

#### **Suggested Readings**

Bharat, Bhaskar : Electronic Commerce - Technologies & Applications. TMH
Forouzan : Data Communication & Networking, TMH.
ISRD, Structured System Analysis and Design, Tata McGraw Hill
Joseph, P.T. : E-commerce An Indian Perspective, PHI
Pressman, Roger : Software Engineering - A Practitioner's Approach , TMH
Rajaraman V., Systems Analysis and Design, PHI
Sommerville : Software Engineering-Pearson Education.
Tanenbaum : Computer Networks, Pearson Education
Taxali, R. K. : I.T. Tools & Applications , TMH
Westland & Clark : Global Electronic Commerce, Universities Press