**Paper name : SYS 401: E-Business**

**1. Electronic Commerce:**  [6L]

Overview, Definitions, Advantages & Disadvantages of E – Commerce, Threats of E – Commerce, Managerial Prospectives.

**2. Technologies:** [2L]

Relationship Between E – Commerce & Networking, Different Types of Networking For E – Commerce, Internet, Intranet & Extranet, Client – Server, Web – Server Architecture, Infrastructure Requirement For E – Commerce, Intelligent Systems.

**3. Business Models of e – commerce:** [6L]

Model Based on Transaction Type, Model Based on Transaction Party - B2B, B2C, C2B, C2C, Revenue based models, E –Governance.

**4. E – strategy:**  [3L]

Overview, Strategic Methods for developing E – commerce, E-advertisement.

**5. M-commerce:** [3L]

Definition, Hand Held Devices, Mobility & Commerce, Mobile Computing, Wireless Web, Web Security, concepts of WAP.

**6. Supply Chain Management:**  [4L]

E – logistics, Supply Chain Portal, Supply Chain Planning Tools (SCP Tools), Supply Chain Execution (SCE), SCE -Framework, Internet’s effect on Supply Chain Power.

**7. E – Payment Mechanism:** [4L]

Payment through card system, E- Cheque, E – Cash, E – Payment Threats & Protections.

**8. E – Marketing:** [4L]

e-Shopping, Telemarketing. Commercial packages for building e-Shopping portal e.g. One & One

Case study

**9. Electronic Data Interchange** (EDI): [2L]

Meaning, Benefits, Concepts, Application, EDI Model, Protocols (UN EDI FACT / GTDI, ANSI X – 12), Data Encryption (DES / RSA).

**10. Risk of E – Commerce**: [4L]

Overview, Security for E – Commerce, Security Standards, Firewall, Cryptography, Key Management, Password Systems, Digital certificates, Digital signatures. Rules & Regulations For Controlling E – Commerce, Cyber Laws.

**11. ERP** [2L]

Evolution through MRP I and MRPII, Need Identification, Scope and Problem of ERP selection and Implementation,Products and Packages of ERP, Selection of EEP processes, Integrating ERP with other systems, Opportunities and benefits. Case Study – BPR.

**References:**

1. Bhaskar Bharat : Electronic Commerce - Technologies & Applications.TMH
2. Christopher J. & Clerk T.H.K., Global E-Commerce, University Press
3. Joseph P.T. : E-commerce An Indian Perspective, PHI
4. Kalakota, Whinston : Frontiers of Electronic Commerce , Pearson Education.
5. Loshin Pete, Murphy P.A. : Electronic Commerce , Jaico Publishing Housing..
6. Reynolds, Beginning E-Commerce, SPD
7. Whiteley, David, E – Commerce : Strategy Technologies & Applications, Tata McGraw Hill.

**Paper name : SYS 402: Fundamentals of networking**

**1. Communications:**  [6L]

[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.

[c] Network topology, transmission media.

[d] Applications of networking in business and society.

[e] concepts of data transmission, signal encoding, modulation methods, synchronization, multiplexing and concentration, coding method, cryptography.

**2. Network:** [10L]

Communication system architecture – OSI reference model, Topology types, selections, design, Local area networks (LAN), CSMA / CD, token bus, token ring techniques, link level control (LLC) protocols, HDLS, analysis of protocols & performance, concepts in network layer, switching techniques, routing methods (static & dynamic), concepts of ALOHA, MACA, MACAW protocols. Concepts of Wi-Fi & Wi-Max. Case study: telephone network and satellite network.

**3. TCP / IP:** [4L]

Session, Presentation and Application Layers functions.

**4. Networking and Internetworking devices:**  [2L]

Introduction to repeater, hub, bridge, switch, router and gateway.

Case study: Office network

**5. Distributed Processing Potential**: [5L]

Client Server Computing, introduction to distributed database.

**6. Internet**: [5L]

Internet Protocols, IP addressing (IP4 + IP6 ), class & subnets (concept only), Internet computing, MPLS.

**7. Mobile Computing:**  [4L]

Introduction to mobile technology, concept of GPRS, Wireless Application Protocols & other protocols, concept of bluetooth.

**8. Network Security & Privacy:** [4L]

overview, purpose, spamming , cryptography (ciphering, DES, RSA -concept only), authentication (concept only) and firewall.

**References:**

1. Comer : Internetworking with TCP / IP, Vol – 1, PHI/ Pearson Education
2. Forouzan : Data Communication & Networking, TMH.
3. Stallings, W., Data and Computer Communications, Pearson Education
4. Tanenbaum : Computer Networks, Pearson Education
5. Zheng,Computer Networks for Scientists & Engineers,OUP