

Syllabus

Panjab University

Paper Code: MS – 65

Paper Title: E-Commerce and Emerging Trends

Maximum Marks: 80

(45 minutes duration)

Number of Lectures: 90

L.P 6 0

Objectives: This course enables students to be familiar with Fundamentals of Electronic Commerce and

Emerging Technologies such as Parallel Computing, Cloud Computing, Grid Computing, Mobile Computing, and Concept of Big Data.

Note:

- (i) The Question Paper will consist of Five Units.
- (ii) Examiner will set total of NINE questions comprising TWO questions from each Unit and ONE compulsory question of short answer type covering whole syllabi.
- (iii) The students are required to attempt ONE question from each Unit and the Compulsory question.
- (iv) All questions carry equal marks unless specified.

UNIT-I

1. Electronic Commerce: Traditional Commerce vs Electronic Commerce, Types of E-Commerce, E-Commerce infrastructure: Hardware and Software requirements, Electronic Data Interchange (EDI): EDI enabled procurement process and its benefits; Components of EDI system: EDI standards, EDI software, communication networks; Electronic Payment Methods: Types of Electronic Payment Systems, Digital Token Based Electronic Payment Systems, Smart cards and Electronic payment Systems, Credit Card-Based Electronic Payment Systems, Risk and Electronic payment Systems.

2. Issues in E-commerce: The legal and policy environment of E-Commerce; Intellectual Property, advertising and consumer protection; Copyright Law; Patent Law; Network Security and Firewalls; Client-Server Network Security Threats; Data and Message Security; Encrypted Documents and E-mail; Digital Signatures.

UNIT-II

3. Business Intelligence: Introduction to Business Intelligence, Digital data and its types – structured, semi-structured and unstructured, Introduction to Online Transaction Processing (OLTP), Online Analytical Processing (OLAP), Different OLAP architectures: MOLAP, ROLAP, HOLAP, Comparison of OLTP and OLAP. BI Definitions and need, BI Component Framework, Business Applications of BI.

4. Case Studies: Supply Chain management, Banking, Online Reservation Systems, Online Publishing

UNIT-III

5. Parallel Computing: Introduction and use, Flynn's Classical Taxonomy: SISD, SIMD, MISD, MIMD; Parallel Computer Memory Architectures: Shared Memory, Distributed Memory, Hybrid Distributed-Shared Memory; Parallel Programming Models: Shared Memory Model, Threads Model, Distributed Memory/Message Passing Model, Data Parallel Model, Hybrid Model, SPMD and MPMP, Introduction to Parallel Virtual Machine and Message Passing Interface, Supercomputers.

6. Cloud Computing: Introduction and use, Architecture, Service Models: infrastructure as a service, platform as a service, and software as a service;

UNIT-IV

7. Grid Computing: Introduction and benefits, virtual organisations, grid Architecture and its relationship to other distributed technologies, grid application areas.

8. Mobile Computing: Definition, Guided Transmission, Unguided Transmission; Mobile computing architecture, Mobile Devices, Mobile System Networks: Cellular, WLAN, Ad hoc networks; Introduction to : GSM, CDMA, GPRS, EDGE; Introduction to Mobile Databases; Mobile Applications; Mobile Application Languages; features of Mobile Operating system: Palm OS, Symbian, Android.