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B.Com Honours

Semester V

Calicut University

COMPUTER APPLICATIONS IN BUSINESS

Course Code: COM5EJ307 • Module 1 Notes

Module I: Computer Networks & Business Web Design

Covers computer network taxonomy, network architectures, principles of business web design, golden rules of web usability, and strategic role of websites in commerce.

Unit 1: Computer Networks & Network Architecture Taxonomy

Computer Network: Interconnected computing devices sharing data and resources. Network Classifications:

- 1. LAN (Local Area Network): High-speed network confined to single building/office.
- 2. WAN (Wide Area Network): Global network spanning countries/continents (e.g. Internet).
- 3. MAN (Metropolitan Area Network): City-wide optical fiber or wireless network.
- 4. PAN (Personal Area Network): Bluetooth/Zigbee network around an individual (10m radius).
- 5. BAN, SAN, & CAN: Body Area Network (medical sensors), Storage Area Network (datacenter storage), & Campus Area Network (university campus).

Unit 2: Business Web Design Principles & Golden Rules

Web Design Concepts: User Interface (UI), User Experience (UX), & Responsive Web Design. Golden Rules of Web Design: Simplicity, 3-click navigation rule, fast page loading speed, mobile responsiveness, visual hierarchy, & W3C web accessibility standards. Strategic business role: 24/7 lead generation, brand identity, & e-commerce sales.

Practical Case Framework 1 (Computer Network Types Comparison Matrix): Compare coverage range, data speed, ownership, and maintenance cost across network types.

Computer Network Classification Reference Table:			
Network Category	Geographic Coverage Range	Data Transfer Rate	Typical Business Application
LAN (Local Area)	10 meters to 1 kilometer	100 Mbps to 10 Gbps	Corporate Office LAN & School Computer Labs
MAN (Metropolitan)	5 kilometers to 50 kilometers	100 Mbps to 1 Gbps	Cable TV networks & Municipal Wi-Fi grids
WAN (Wide Area)	Country / Global Scale	Variable (Internet Speed)	MNC Inter-branch VPNs & Global Cloud Servers
SAN (Storage Area)	Datacenter Dedicated Network	16 Gbps to 128 Gbps (Fibre Channel)	Enterprise Database Backups & Cloud Datacenters

Practical Case Framework 2 (Golden Rules of Web Design Matrix): Detail core web design principles and their

impact on business conversions.

Golden Rules of Business Web Usability Table:

Design Principle	Technical Implementation	Business Impact & Conversion Benefit
Visual Hierarchy	Large headings, contrasting CTA buttons	Guides user attention to buying actions
Responsive Design	CSS Flexbox & Media Queries	Optimizes UX for mobile & tablet shoppers
Fast Load Speed	Image compression & CDN caching	Reduces bounce rate & improves SEO rankings

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