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**E-COMMERCE AND INFORMATION TECHNOLOGY TOOLS****Section A: E-Commerce (Theory)****Full Marks: 50****Unit 1 - Introduction to ecommerce (6L)**

- Meaning and concept of ecommerce, ecommerce vs e-business, advantages and disadvantages of ecommerce, E-Business vs the Traditional Business Mechanism, competitive advantage and competitive strategy, main goals of e-commerce, different types of ecommerce like B2B, B2C, C2C, C2B, G2C. Revenue Models of e-commerce (Advertising Revenue Model, Sales Revenue Model, Subscription based Revenue Model, Referral fee Revenue Model, Pay per Click Revenue Model),

**Unit 2 - Technology in ecommerce (4L)**

- An overview of the internet, basic network architecture and the layered model, internet architecture, network hardware and software considerations, intranets and extranets The making of world wide web (WWW), web system architecture, ISP, URL, URI, URN. Cookies. Types of Servers (Web, Database, Mail, File), Protocol (http, https, ftp), WWW, URL. Designing, building and launching e-commerce website choosing an ISP, registering a domain name, outsourcing vs. in-house development of a website, internet marketing techniques, personalization, Overview of M-Commerce - Wireless Application Protocol (WAP)

**Unit 3 - Security threats (6L)**

- Security in cyberspace, Security threats in the E-commerce environment – malicious codes (virus, Trojan, worm), Cyber-crimes: hacking, spoofing, sniffing, phishing, and cyber-vandalism. Basic cryptography for enabling security in ecommerce: encryption: public and private key encryption, internet security using VPN, firewalls, SSL. IT Act 2000: Objectives, Definitions, Electronic governance, Regulation of certifying authorities, Digital signatures and certificates. Cyber offences vs. Cyber Crimes. Ethical issues, legal issues, taxation issues and international issues in e-commerce.

**Unit 4 - Internet payment systems and e-marketing (4L)**

- E-Payment System: Different methods of e-payment (Debit Card, Credit Card, Smart Cards, e-money, digital wallet), Working of payment gateway, Internet Banking. SET protocol for credit card payment. Introduction to Cryptocurrency. E-Marketing: Concept, types of e-marketing, means of advertising: Banner, Pop-up, Interstitials, Sky-scrappers, sponsored link, email; e-branding, SEO-Basics

**Unit 5 – Introduction to ERP and E-CRM (4L)**

- Introduction to ERP: Concept & definition, features, major characteristics, levels of ERP, Benefits of ERP, Enterprise potentials of ERP, Modules of ERP, Phases of ERP implementation, Limitations of ERP. E-CRM Concept & definition, features, Goals of E-CRM business framework, Three phases of ECRM, Types of E-CRM, Functional Components of E-CRM.

**Unit 1 –Word-processing****(4L)**

- **Introduction:** Creating and saving your document, displaying different views, working with styles and character formatting, working with paragraph formatting techniques using indents, tabs, alignment, spacing, bullets and numbering and creating borders.
- **Page setup and sections:** headers and footers, end notes and foot notes, creating section breaks and page borders.
- **Working with tables:** Creating tables, modifying table layout and design, sorting, inserting graphics in a table, indexes and table of contents.
- **Language tools:** Adding hyperlinks, adding sources and compiling and bibliography.
- **Mail merge:** Creating and editing your main document and data source, sorting and filtering merged documents and using merge instructions like ask, fill-in and if-then-else. Linking and embedding to keep things together.

**Unit 2 - Spreadsheets:****(4L)**

- **Introduction:** Concept of worksheets and workbooks, creating, opening, closing and saving workbooks, moving, copying, inserting, deleting and renaming worksheets, working with multiple worksheets and multiple workbooks, controlling worksheet views, naming cells using name box, name create and name define.
- **Using formulae and functions:** Understanding absolute, relative and mixed referencing in formulas, referencing cells in other worksheets and workbooks, correcting common formula errors, and working with inbuilt function categories like mathematical, statistical, text, lookup, and basic financial functions.
- **Printing and protecting worksheets:** Implementing file level security and protecting data within the worksheet.
- **Creating charts and graphics:** Choosing a chart type, understanding data points and data series, editing and formatting chart elements, and creating sparkline graphics.
- **Analysing data using pivot tables:** Creating, formatting and modifying a pivot table, sorting, filtering and grouping items, creating calculated field and calculated item, creating pivot table charts, producing a report with pivot tables.
- **Performing what-if analysis:** Types of what if analysis (scenario manager), what-if analysis in reverse (goal seek), Sum-If, Count-If, Exchanging data using clipboard, object linking and embedding.

**Unit 3 - Business presentation****(2L)**

- **Introduction:** Creating a blank presentation using a design template, basing a new presentation on an existing one, creating and managing slides, using content place holders, creating graphs, tables, diagrams, organization charts, inserting clip art and images.
- **Viewing and navigating a presentation:** Organising ideas in outline view, understanding master views, working with headers and footers, using hyperlinks.
- **Animation and multimedia:** Using and applying animation schemes, custom animation, understanding sound file formats and video types, adding music, sound and video clips.
- **Final presentation:** Applying transition to slides, controlling transition speed, using hidden slides, using custom shows.

**Unit 4 – Database****(4L)**

- **Introduction to Database Development:** Database Terminology, Objects, Creating Tables, working with fields, understanding Data types, Changing table design, Assigning Field Properties, Setting Primary Keys, using field validation and record validation rules, Indexing,

working with multiple tables, Relationships & Integrity Rules, Record manipulation, Sorting & Filtering.

- **Select data with queries:** Creating Query by design & by wizard.
- **Working with Data on Forms:** Creating Basic forms, Changing Layout, creating list box, combo box and option groups.
- **Working with Reports:** Creating Basic Reports, Creating Header & Footer, Placing Controls on reports.

**Unit 5 - Web page design using HTML, CSS & JAVA SCRIPT: (8L)**

- Overview of HTML, basic structure of an HTML document, basic text formatting, lists, hyperlinks, images, tables, forms, introduction to CSS and Java script.

**References:**

1. E-commerce, business, technology, society, Kenneth Laudon & Traver, Pearson Education
2. Information Technology for Management, Ramesh Behl, McGraw Hill
3. E-Commerce Strategy, Technologies and Applications, David Whiteley, McGraw Hill
4. E Commerce - An Indian Perspective by P.T.Joseph, PHI
5. Introduction to Information Technology, ITL Education, Pearson Education
6. Information Technology for Management, Ramesh Behl, McGraw Hill
7. Information Technology and Its Applications in Business, ReemaThareja, Oxford University Press