Computer Application Exam. 2024-25

B.A./B.Com./B.Sc.

(Optional Course)

(NEP-2020 Based Curriculum and Examination Scheme)

Faculty of Arts, Comm. & Science

	Serial Number, Code & Nomenclature of Course			Duration of Exam	Teaching Hrs/ Week & Credit			Distribution of Marks			Min Pass	
Year/Sem.	**Course Code**	**Course Type**	**Nomenclature**		**L**	**P**	**C**	**Internal Assess.**	**Sem. Assess.**	**Total**	**Internal Assess.**	**Sem. Assess.**
I Year I Sem.		**DCC**	Introduction to Information Technology	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on Information Technology	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**
I Year II Sem.		**DCC**	PC Software Packages	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on PC Software Packages	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**
II Year III Sem.		**DCC**	Database Management System	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on Database Management System	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**
II Year IV Sem.		**DCC**	Web Technology	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on Web Technology	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**
III Year V Sem.		**DCC**	Introduction to Cyber security	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on Cyber security	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**
III Year VI Sem.		**DCC**	E-commerce	**3 Hrs.**	**4**	**..**	**4**	**30**	**70**	**100**	**12**	**28**
		DCC	Lab on E-commerce	**2 Hrs.**	**..**	**4**	**2**	**15**	**35**	**50**	**8**	**18**

Semester – I:

Introduction to Information Technology

Time : 3 Hrs. **Max. Marks: 100**

UNIT - I

Computer Basics: A Simple Model of a Computer: CPU, Memory and I/O units, Characteristics of Computers, Algorithms. Computer Generation & Classifications: First, Second, Third, Fourth and Fifth Generation, Classification of Computers, Development of Indian Supercomputer „PARAM": history, characteristics, strengths & weaknesses and basic architecture.

UNIT - II

Computer Memory: Memory Cell, Memory Organization, Read Only Memory, Serial Access Memory, Physical Devices Used to Construct Memories, Magnetic Hard Disk, floppy Disk Drives, Compact Disk, Read Only Memory, Magnetic Tape Drives.

UNIT – III

Data Representation: Representation of Characters in Computers, Representation of Integers, Representation of Fractions, Hexadecimal Representation of Numbers, Decimal to Binary Conversion. Binary Arithmetic: Binary Addition, Binary Subtraction, Signed Numbers, Binary Multiplication, Binary Division.

UNIT-IV

Software Concepts: Types of Software, Software: Qualities & Attributes, Programming Languages: types and differences.

UNIT - V

Internet: Network, World Wide Web, Uniform Resource Locator, Web Browsers, IP Address, Domain Name, Web Search Engine, Net Surfing, how to connect with Internet. E-Commerce: An Indian perspective, Digilocker, attendance.gov.in, mygov.in, Swachh Bharat Mission, EHospital, National Scholarship portal, E-Sampark, UID, various modes of Digital payment of govt. of India.

Text / Reference Books

1. "Computer fundamental", P.K.Sinha BPB Publications.

2. Fundamentals of Computers, V. Rajaraman, 3rd Edition, PHI Publications

3. Essentials of Computer & Network Technology, Nasib S. Gill, Khanna Publications.

4. Fundamentals of Information Technology, Deepak Bharihoke, Excel Books.

5. Information Technology by Reena Dadhich and R.C. Poonia, Vardhman Publications, 2009.

PRACTICAL

Practical will be based on Basic of Computer structure, Software, Uses of Internet.

Semester – II:

PC Software Packages

Time: 3 Hrs. **Max. Marks: 100**

UNIT – I

DOS: Introduction, history & versions of DOS, DOS basics- Physical structure of disk, drive name, FAT, file & directory structure and naming rules, booting process, DOS system files, DOS commands: internal & external.

UNIT – II

Word Processing: Features, Creating, Saving and Opening Documents in Word, Interface, Toolbars, Ruler, Menus, Keyboard Shortcut, Editing, Previewing, Printing & Formatting a Document, Advanced Features of MS Word, Find & Replace, Using Thesaurus, Using Auto Multiple Functions, Mail Merge, Handling Graphics, Tables & Charts, Converting a word document into various formats like: Text, Rich Text format, Word perfect, HTML etc.

UNIT – III

Worksheet: Worksheet basics, creating worksheet, entering into worksheet, heading information, data, text, dates, alphanumeric values, saving & quitting worksheet, Opening and moving around in an existing worksheet, Toolbars and Menus, Keyboard shortcuts, Working with single and multiple workbook.

UNIT-IV

Working with formulae & cell referencing, Auto sum, Copying formulae, Absolute & relative addressing, Worksheet with ranges, formatting of worksheet, Previewing & Printing worksheet, Graphs and charts, Database, Creating and Using macros, Multiple worksheets- concepts, creating and using.

UNIT – V

Introduction to Power Point: Creating slide show with animations, Designing Presentations. Case study of web editing tool and DBMS tool such as Front Page & Ms-Access: Creating & using databases in Access. Basic introduction of open source software.

Text / Reference Books

1. Introduction to Computers by P.K. Sinha & Priti Sinha, BPB Publication, 1992.

2. Microsoft 2008 in 1 day by Joe Habraken, PHI

3. Window XP Complete Reference, BPB Publication.

4. IT Tools and Applications by A. Mansoor, Pragya Publications, Mathura.

5. DOS Quick Reference by Rajeev Mathur, Galgotia Publications.

6. Ms Office XP Computer, BPB Publications.

PRACTICAL

Practical will be based on P C Software Packages .

Semester – III:

Database Management System

Time: 3 Hrs. **Max. Marks: 100**

UNIT – 1

Categorization of DBMS system: Network, Hierarchical and relational database, Application of DBMS systems. Relational data base management systems: Why to use them and where, Data Description language, Data Manipulation Language and Data control Language.

UNIT – 2

Working with MS Access. Security consideration in database management systems, Performance improvement in database.

UNIT – 3

Relational database- advanced concepts, Introduction to ORACLE or a similar RDBMS on a multi user environment.

UNIT – 4

Introduction to Relation Algebra, Structured Query language, Form design through an advanced RDBMS, Report generator, query by example and Report by form, Accessing RDBMS using programming language, RDBMS menu, RDBMS network.

UNIT – 5

System management, User management, Security consideration.

Reading / Reference Books

1. An Introduction to Data Base System: Date C.J., Addison Wesley.

2. Database Management System Concepts: Henry F. Korth, Abraham Silber Schatz, MC Graw Hill

PRACTICAL

Practical will be based on Database Management System.

Semester – IV:

Web Technology

Time: 3 Hrs. **Max. Marks: 100**

Unit I

Introduction to Basics of Internet: Concepts of Internet: Domain, IP Addressing, Resolving Domain Names, Overview of TCP/IP and its Services, WWW.

Unit II

Designing Pages with HTML Introduction to HTML, Essential Tags, Deprecated Tags, Tags and Attributes, Text Styles and Text Arrangements, Text, Effects, Exposure to Various Tags (DIV, MARQUEE, NOBR, DFN, HR, LISTING, Comment, IMG), Color and Background of Web Pages, Lists and their Types, Attributes of Image Tag.

Unit III

Hypertext, Hyperlink and Hypermedia, Links, Anchors and URLs, concept of navigation, Different Section of a Page and Graphics, Footnote and e-Mailing, Creating Table, Frame, Form and Style Sheet.

Unit IV

DHTML Dynamic HTML, Document Object Model, Features of DHTML, CSSP (Cascading Style Sheet Positioning) and JSSS (Java Script assisted Style Sheet), Layers of Netscape, The ID Attribute, DHTML Events.

Unit V

Web Designing Tools: Front Page Basics , Web Terminologies, Phases of Planning and Building Web Sites, The FTP, HTTP and WAP, Features, Front Page Views, Adding Pictures, Backgrounds, Links, Relating Front Page to DHTML.

Text / Reference Books:

1. HTML Black Book – Steven Holzner – Dreamtech Press.

2. HTML, Java Script, DHTML, PERL, CGI – Evan Bayross – BPB.

4. Dynamic HTML webMagic/ jet douyer-hayden Development group

5. The DHTML Company only Robert mudrey, PHI.

PRACTICAL

Practical will be based on Web Technology.

Semester – V:

Cyber Security

Time: 3 Hrs. **Max. Marks: 100**

Unit-I

Cybercrime: Definition and Origins of the Word, Cybercrime and Information Security, Who are Cybercriminals? Classifications of Cybercrimes.

Unit-II

CYBER OFFENSES: HOW CRIMINALS PLAN THEM Introduction, Initiatives taken by Government to prevent cyber crimes.

Unit-III

End Point device and Mobile phone security, Password policy, Security patch management, Data backup.

Unit-IV

Downloading and management of third party software, Device security policy, Cyber Security best practices.

Unit-V

Significance of host firewall and Ant-virus, Management of host firewall and Anti-virus, Wi-Fi security, Configuration of basic security policy and permissions.

Text/Reference Books:

1. Cyber Crime Impact in the New Millennium, by R. C Mishra , Auther Press. Edition 2010.

2. Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives by Sumit Belapure and Nina Godbole, Wiley India Pvt. Ltd. (First Edition, 2011)

3. Security in the Digital Age: Social Media Security Threats and Vulnerabilities by Henry A. Oliver, Create Space Independent Publishing Platform. (Pearson , 13th November, 2001)

PRACTICAL

Practical will be based on syllabus of Cyber security.

Semester – VI:

E-commerce

Time: 3 Hrs. **Max. Marks: 100**

Unit-I

Introduction to e-Commerce: Definition; Perspectives; History of e-Commerce, Categories of e-Commerce, Comparison between traditional and electronic commerce – advantages and disadvantages of e-commerce

Unit-II

E-Commerce Technology: Introduction Electronic Commerce Framework, Electronic Commerce and Media convergence.

Unit-III

Electronic payment system: Problems with traditional payment system, features of e-payment system, Types of e-payment system: e-token, e-cash, e-cheque, Credit cards, Debit cards, Smart cards. Credit Cards based e-Payment system.

Unit-IV

E-commerce security issues, Information Security- Security Threats in e-commerce, Mobile Commerce Risks, Security and Mobile Payment Methods.

Unit-V

Current Trends in electronic world: e-Waste, e-Surveillance, e-Governance, e-Care. Examples of the types of e-Commerce: Intel; Amazon; e-bay. Introduction to Industry 4.0.

Text/Reference Books:

1. e-Commerce and Mobile Commerce Technologies, Dr. U.S. Pandey, Er. Saurabh Shukla, S. Chand 2015, Revised Edition.
2. Essentials of E-Commerce Technology, V. Rajaraman, PHI Learning Private Limited
3. Frontiers of Electronic commerce, Ravi Kalakota and Andrew B. Whinston, Pearson Publication Ltd

PRACTICAL

Practical will be based on syllabus of E-commerce.