



**DIRECTORATE OF DISTANCE EDUCATION**  
**KURUKSHETRA UNIVERSITY KURUKSHETRA**  
(Established by the State Legislature Act XII of 1956)

**CERTIFICATE COURSE IN COMPUTER APPLICATIONS**

**SCHEME OF EXAMINATION 2018-19**

Paper No.	Title of Paper	External Marks	Internal Marks	Max. Marks	Pass Marks	Exam Duration
CCA-1	Computer Fundamentals	80	20	100	35	3 hrs
CCA-2	PC Software	80	20	100	35	3 hrs
CCA-3	Internet and Web-Designing	80	20	100	35	3 hrs
CCA-4	Lab-1 Based on CCA-2	-----	-----	100	35	3 hrs
CCA-5	Lab-2 Based on CCA-3	-----	-----	100	35	3 hrs

**Maximum Marks: 100**  
**Minimum Pass Marks: 35**  
**Time: 3 hours**

**External: 80**  
**Internal: 20**

**Note:** Examiner will be required to set Nine Questions in all. First Question will be compulsory, consisting of objective type/short-answer type questions covering the entire syllabus. In addition to that eight more questions will be set, two questions from each Unit. Student will be required to attempt FIVE questions in all. Question Number 1 will be compulsory. In addition to compulsory question, student will have to attempt four more questions selecting one question from each Unit.

### UNIT-I

Computer Fundamentals: Definition, Block Diagram along with its components, characteristics & classification of computers, Applications of computers in various fields.  
Memory: Concept of primary & secondary memory, RAM, ROM, types of ROM, flash memory, Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, CD, DVD.

### UNIT-II

Information Representation: Number Systems, Binary Arithmetic, Representation of Integer and Real Numbers, Concept of Codes: BCD Codes, Error detecting and correcting codes(Parity Bit Codes), Character Representation – ASCII, EBCDIC, Unicode.

### UNIT-III

Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation.  
Techniques of Problem Solving: Flowcharting, algorithms, decision table, Structured programming concepts, Programming methodologies viz. top-down and bottom-up programming.  
Computer Languages: Analogy with natural language, low-level language, high-level language, language translator, characteristics of a good programming language.

### UNIT-IV

Computer hardware & software: I/O devices, relationship between hardware and software, types of software.  
Overview of operating system: Definition, functions of operating system, concept of multiprogramming, multitasking, multithreading, multiprocessing, time-sharing, real time, single-user & multi-user operating system.

### TEXT BOOKS

1. Sinha, P.K. & Sinha, Priti, Computer Fundamentals, BPB
2. Dromey, R.G., How to Solve it By Computer, PHI

### REFERENCE BOOKS

1. Norton, Peter, Introduction to Computer, McGraw-Hill
2. Leon, Alexis & Leon, Mathews, Introduction to Computers, Leon Tech World
3. Rajaraman, V., Fundamentals of Computers, PHI
4. Ram, B., Computer Fundamentals, Architecture & Organization, New Age International (P) Ltd.

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### **UNIT – I**

MS-Windows: Features of Windows OS, Windows history; Files & Folders operations. Desktop, Recycle Bin, My Computer, My Documents, Windows Explorer, Configuring System Devices: Control Panel, Accessories in Windows.

### **UNIT – II**

Documentation Using Word-Processing package: Introduction to MS-Office, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Page Formatting, Bookmark, Mail Merge, Macros, Tables, Printing, Styles.

### **UNIT – III**

Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Creating & Editing Worksheet, Formatting and Essential Operations, Formulas and Functions, Charts, Sorting, Filtering, Validation.

### **UNIT – IV**

Presentation using MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

### **TEXT BOOKS**

1. Microsoft Office – Complete Reference – BPB Publication
2. Learn Microsoft Office – Russell A. Stultz – BPB Publication

### **REFERENCES BOOKS**

1. Courter, G Marquis (1999). Microsoft Office 2000: Professional Edition. BPB.
2. Koers, D (2001). Microsoft Office XP Fast and Easy. PHI.
3. Nelson, S L and Kelly, J (2002). Office XP: The Complete Reference. Tata McGraw-Hill.

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### **UNIT – I**

Introduction to Computer Networks: Types of Computer Networks and their topologies. Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features; Web Browsers; Web Servers; Hypertext Transfer Protocol; URLs; Search Engines and Search Tools.

### **UNIT - II**

Web Publishing: Hosting your Site; Internet Service Provider; Planning and designing your Web Site; Steps for developing your Site; Choosing the contents; Home Page; Domain Names.

Internet Concepts: IP addresses, DNS; Internet Services; E-mail, File transfer and FTP; Remote login using TELNET; Internet Connections: Dialup; Leased line; Modems; DSL.

### **UNIT – II**

Web Development: Introduction to HTML; Elements of an HTML document : HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts.

### **UNIT – IV**

Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts; Frame Creation and Layouts; Working with Forms, Working with Radio Buttons; Check Boxes; Text Boxes.

#### **TEXT BOOKS:**

1. Raj Kamal, "Internet and Web Technologies", Tata McGraw-Hill.
2. Ramesh Bangia, "Multimedia and Web Technology", Firewall Media.
3. Deitel and Goldberg, "Internet and World Wide Web, How to Program", PHI

#### **REFERENCE BOOKS:**

1. Thomas A. Powell, "Web Design: The Complete Reference" , 4/e, Tata McGraw-Hill
2. Wendy Willard, "HTML Beginners Guide", Tata McGraw-Hill.