

**उत्तराखण्डसंस्कृतविश्वविद्यालयः हरिद्वारम्**  
**सर्टिफिकेटइनकम्प्यूटर एप्लीकेशन**  
**(Certificate in Computer Application) - 06 Months**

**प्रथमप्रश्नपत्र**

**Computer Fundamental**

**समय : 03 घण्टे**

**अंक 100**

- Unit 1: Brief History of Development of Computers ,Computer System Concept, Computer System Characteristics ,Capabilities and Limitations, Types of Computers-.,Personal Computer (PCs) - IBM PCs, Types of PCs- Desktop, Laptop, Notebook, Palmtop, etc. Basic Components of a Computer System - Control Unit, ALU, Input/Output semiconductor Memory.Storage fundamentals - Primary Vs Secondary memory.
- Unit-2 Input Devices :Keyboard, Mouse, Joystick, Scanners, Digital Camera, MICR,OCR, OMR, , Light pen, Touch Screen. Output Devices Monitors - Characteristics and types of monitor, Size, Resolution, Refresh Rate, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers - Daisy wheel, Dot Matrix, Inkjet, Laser. Plotter, Sound Card and Speakers
- Unit-3 Various Storage Devices - Magnetic Disks, Hard Disk Drives, Floppy, Disks, Optical Disks, Computer Software ,Need, Types of Software's - System software, Application software System Software - Operating System, compiler ,Assemblers, Interpreter .
- Unit -4 Operating Systems –Functions ,Types- Batch, Single, Multiprogramming, Multiprocessing Programming languagesMachine, Assembly, High Level, 4GL, Application Software - Word-processing, Spreadsheet, Presentation Graphics, Data Base Management Software, Number System, Number System of computers- Binary, Octal, Hexadecimal, their conversion. Coding System – ASCII, EBCDIC.
- Unit -5 Direction of Transmissions Flow-Simplex, Half Duplex Full Duplex, Types of Network - LAN, WAN, MAN etc. Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies. Computer Virus: Virus working principals, Types of viruses, Virus detection and Prevention Viruses on network.

**Text & Reference Books :**

1. Computers Today by S.K. Basandra, Galgotia Publications. Fundamentals of Information Technology by Alexis Leon & Mathews Leon, Vikas Publishing House, New Delhi. Dos Quick Reference By Rajeev Mathur, Galgotia Publications.
2. Rajaraman, Fundamentals of Computers, Fourth edition, Prentice Hall India Pvt. Limited, 2006.
3. Computer Fundamental, P.K Sinha, 4th Edition, BPB PUBLICATION 2007.
4. Fundamentals of Information Technology, ChetanSrivastva, Third edition, Kalayani Publishers, 2008.
5. Computers, Larry long & Nancy long, 12th edition, Prentice Hall, 2005.

# उत्तराखण्डसंस्कृतविश्वविद्यालयः हरिद्वारम्

## सर्टिफिकेटइनकम्प्यूटर एप्लीकेशन (Certificate in Computer Application) - 06 Months

### द्वितीयप्रश्नपत्र

### PC Packages (Windows, MS Word, MS Excel, MS Powerpoint)

समय : 03 घण्टे

अंक 100

- Unit 1: **MS Windows:** Introduction to MS Windows; Features of Windows; Various versions of Windows & its use; Working with Windows; My Computer & Recycle bin ; Desktop, Icons and Windows Explorer; Screen description & working styles of Windows; Dialog Boxes & Toolbars; Working with Files & Folders; simple operations like copy, delete, moving of files and folders from one drive to another, Shortcuts & Autostarts; Accessories and Windows Settings using Control Panel- setting common devices using control panel, modem, printers, audio, network, fonts, creating users, internet settings, Start button & Program lists; Installing and Uninstalling new Hardware & Software program on your computer.
- Unit-2 **Office Packages:** Office activates and their software requirements, Word-processing, Spreadsheet, Presentation graphics, Database, introduction and comparison of various office suites like MS-Office, Lotus-Office, Star-Office, Open-Office etc. MS Word Basics: Introduction to MS Office, Introduction to MS Word, Features & area of use. Working with MS Word, Menus & Commands, Toolbars & Buttons, Shortcut Menus, Wizards & Templates, Creating a New Document, Different Page Views and layouts, Applying various Text Enhancements, Working with -Styles, Text Attributes, Paragraph and Page Formatting, Text Editing using various features ; Bullets, Numbering, Auto formatting, Printing & various print options.
- Unit-3 **Advanced Features of MS-Word:** Spell Check, Thesaurus, Find & Replace; Headers & Footers, Inserting - Page Numbers, Pictures, Files, Autotexts, Symbols etc., Working with Columns, Tabs & Indents, Creation & Working with Tables including conversion to and from text, Margins & Space management in Document, Adding References and Graphics, Mail Merge, Envelops & Mailing Labels. Importing and exporting to and from various formats.
- Unit -4 **MS Excel:** Introduction and area of use, Working with MS Excel, concepts of Workbook & Worksheets, Using Wizards, Various Data Types, Using different features with Data, Cell and Texts, Inserting, Removing & Resizing of Columns & Rows, Working with Data & Ranges, Different Views of Worksheets, Column Freezing, Labels, Hiding, Splitting etc., Using different features with Data and Text; Use of Formulas, Calculations & Functions, Cell Formatting including Borders & Shading, Working with Different Chart Types; Printing of Workbook & Worksheets with various options.
- Unit -5 **MS PowerPoint:** Introduction & area of use, Working with MS PowerPoint, Creating a New Presentation, Working with Presentation, Using Wizards; Slides & its different views, Inserting,

Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists, Adding Graphics, Sounds and Movies to a Slide; Working with PowerPoint Objects, Designing & Presentation of a Slide Show, Printing Presentations, Notes, Handouts with print options. Outlook Express: Features and uses, Configuration and using Outlook Express for accessing e-mails in office.

**Text & Reference Books:**

- 1.Windows XP Complete Reference. BPB Publications
- 2.Ms Office XP Complete BPB Publication
- 3.MS Windows XP Home Edition Complete, Bpb Publication.
- 4.Joe Habraken, Microsoft Office 2000, 8 In 1, By, Prentice Hall Of India
- 5.I.T .Tools And Applications, By A. Mansoor, Pragya Publications, Matura

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**तृतीयप्रश्नपत्र**  
**Desktop Publishing (Page Maker, Photoshop)**

**समय : 03 घण्टे**

**अंक 100**

- Unit 1: D.T.P For Publications Introductions to Printing, Types of Printing, Offset Printing, Working of offset Printing, Transparent Printout, Negative & Positives for Plate were making, Use of Desk Top Publishing in Publications, Importance of D.T.P in Publication, Advantage of D.T.P in Publication, Mixing of graphics & Image in a single page production, Laser printers - Use, Types, Advantage of lager printer in publication.
- Unit-2 Page Layout Different page format / Layouts, News paper page format, Page orientations, Columns & Gutters, Printing in reduced sizes. Introductions To Page Maker Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns.
- Unit-3 Master Pages and Stories, Story Editor, Menu Commands and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor.
- Unit -4 Introduction to Adobe Photoshop & Documents, Various Graphic Files and Extensions, Vector Image and Raster Images, Various Colour Modes and Models.
- Unit -5 Introduction to Screen and Work Area, Photoshop Tools & Palettes ,Use of Layers & Filters, Working with Images.

Text & Reference Books:

1. Page Maker 4.0 & 5.0 By B.P.O. Publications.
2. Prakhar Complete Course For DTP (Coreldraw, Pagemaker, Photoshop)

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**चतुर्थप्रश्नपत्र**  
**PROGRAMMING IN C**

**समय : 03 घण्टे**

**अंक 100**

- Unit 1: Fundamentals of C: I/O statements, Assignment Statements, Constants, Variables, Operators and Expressions, Standards and Formatted statements, Keywords, Data Types and Identifiers. Control Structures: Introduction, Decision making with if – statement, if-else and Nested if, while and do-while, for loop. Jump statements: break, continue, goto, switch Statement.
- Unit-2 Functions: Defining & Accessing : Passing arguments, Function Prototype, Recursion, Use of Library Functions, Storage Classes: Automatic, External and Static Variables (Register)  
Arrays: Defining & Processing, Passing to a function, Multidimensional Arrays.  
String: Operations of Strings (String handling through built-in & UDF: Length, Compare Concatenate, Reverse, Copy, Character Search using array)
- Unit-3 Structures: Defining & Processing, Passing to a function, Unions (Array within structure, Array of structure, Nesting of structure, Passing structure and its pointer to UDF, Introduction to Unions and its Utilities). MACROS.
- Unit -4 Pointers: Declarations, Passing to a function, Operations on Pointers, Pointers & Arrays, Array of Pointer, Pointer Arithmetic, Array accessing through pointers, Pointer to structure, Pointer to functions, Function returning pointers, Dynamic Memory Allocations.  
Data Files: Open, Close, Create, Process Unformatted. Data Files. (Formatted Console I/O functions, Unformatted Console I/O functions, Modes Of Files, Use Of fopen(), fclose(), fgetc(), fputc(), fgets(), fprintf(), fscanf(), fread(), fwrite(), Command Line Arguments). Documentation, debugging, C Processors. Examples illustrating structured program development methodology and use of a block structured algorithmic language to solve specific problems.

Text & Reference Books:

1. Kernighan & Ritchie: The C Programming Language, PHI.
2. Gottfried, B.: Theory and problems of Programming in C, Schaum Series.
3. Balagurusamy, "Programming in C", 5th Edition, Tata McGraw-Hill Education, 2007
4. Yashavant Kanetkar, "Let us C", 10 th Edition, BPB publication, 2010

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पंचमप्रश्नपत्र  
Practical & Viva

अंक 50

Programming in C.

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षष्ठमप्रश्नपत्र  
Practical & Viva

अंक 50

Practical in DTP Packages.