



केन्द्रीय संस्कृत विश्वविद्यालय



॥ प्राक्शास्त्री-पाठ्यक्रम ॥

संगणक विज्ञान



SYLLABUS CREATED BY

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➤ सत्रार्द्धशः पाठ्यक्रम का विवरण

प्राक्शास्त्री प्रथम वर्ष प्रथम सत्रार्द्ध

Course V

प्रायोगिक संगणक

No. Of Credits : 4

Unit	Chapter	Chapter details	Total hrs.
Unit 1 : Computer System and Organization	Chapter 1: Computer System	<ul style="list-style-type: none"> ● Introduction to computer and computing: evolution of computing devices, data and information, types of data, functional components of a computer system and their interconnections. ● Central Processing Unit - Processor Speed, Cache, Memory, RAM, ROM, Booting. ● Computer Memory: Units of memory, types of memory – primary and secondary; data deletion, its recovery and related security concerns. ● Memory devices: Secondary Storage Devices, examples. ● Input Devices - Keyboard, Mouse, joystick, Scanner, web cam, OCR, OMR, MICR scanning devices. ● Output Devices- Monitors, Printers – Laser, Dot matrix, inkjet, Projector, plotter. ● Software: purpose and types – system and application software, operating system, language translators, device drivers, programming tools, generic and specific purpose software, Compiler, interpreter ● Operating System (OS): Need for operating system, brief introduction to functions of OS, user interface, examples of OS. ● Microsoft Windows: An overview of different versions of Windows, Basic Windows elements. ● Using essential accessories: System tools – Disk defragmenter, Calculator, Notepad, & Paint. ● Application Management: Installing, uninstalling, Running applications. 	16 Hrs. + 16 Hrs.
	Chapter 2: Central Processing Unit		
	Chapter 3: Computer Memory		
	Chapter 4: Memory devices		
	Chapter 5: Input Devices		
	Chapter 6: Output Devices		
	Chapter 7: Computer Software		
	Chapter 8: Operating System		
	Chapter 9: Microsoft Windows		
Unit 2: Encoding	Chapter 10:	<ul style="list-style-type: none"> ● Encoding schemes: American Standard 	16Hrs.

Schemes and Number System	Encoding Schemes Chapter 11: Number system	Code for Information Interchange (ASCII), UNICODE, Binary Coded Decimal (BCD). ● Number system: Decimal, Binary, Octal and Hexadecimal number system and converting a number from a number system to another, including its fractional part.	
Unit 3: Introduction to Internet	Chapter 12: Introduction to Internet Chapter 13: Use of Internet in Sanskrit World	<ul style="list-style-type: none"> ● Internet, Growth of Internet, Owners of the Internet, Anatomy of Internet, ARPANET, World Wide Web, basic Internet Terminology, Net etiquette. ● The need and use of Computer Networks, Working of Internet, Protocols- TCP/IP, HTTP, FTP ● Browsers, Searching for information on Internet- Sanskrit Wikipedia, E- Sanskrit Resource and Sanskrit Portal, Search engines, servers, browser history, and cookies. 	16 Hrs.

Practicals:

- Working with Windows OS
- Typing in Devanagri Unicode using any Input tools
- Understanding the difference between ANSI and UNICODE complex scrpits.
- Browsing through Internet:
 - Browsing Websites and apps related to Sanskrit
 - E- Sanskrit Resource and Sanskrit Portal
 - Working with Navigation apps such as Google Maps
 - Online payment and online form fill up process
 - Downloading and uploading data.

Reference books:

Computer fundamentals by PK Sinha

Internet Technology and Web design by BPB publications

Fundamentals of Computers by Rajaraman V

Computer Or Sanchar Prodhogiki

COURSE OUTCOME

1. Develop a basic understanding of computer systems architecture,
2. Understand the concept of software and operating system
3. Ability to understand the working of Microsoft Windows.
4. Explanation about the concept of number system.
5. Ability to understand the notion of encoding schemes.
6. Understand the concept of Internet, its working, and protocols.
7. Explaining the search process in browsers through examples such as Sanskrit Wikipedia, Sanskrit Portal, and E-Sanskrit resources.
8. Understanding the new age skills such as online payments, online application forms, navigation apps, banking apps etc.