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## FUNDAMENTAL OF COMPUTING

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**Paper Code** CS- 101

**Course Credits** 2

**Lectures / week** 2

**Tutorial / week** 1

**Course Description** **UNIT – I**

Computer fundamentals, Bits and Bytes, CPU, Memory, Input and output devices, I/O devices, Operating system, applications software's. Number system, decimal system, Binary, octal, hexadecimal.

### **UNIT- II**

The C character set, constants, variable, keywords, operator and expressions, decision controls, loops, case, functions, call by value and by reference, array, single dim, 2 dim, multidimensional arrays, strings, library string functions, structures, pointers and structures, dynamic memory allocation using pointers, searching and sorting, linear, binary search, bubble sort selection sort, insertion sort.

### **UNIT- III**

OS definition, role of OS in computer system, multi programming, time sharing, multitasking, multiprocessing, symmetric and asymmetric, cluster system, real time system, client server computing, distributed OS, function of OS (user interface, GUI, program execution, I/O management, Resource management, dos fundamentals.

### **UNIT- IV**

Network, communication models, transmission media, connection topologies, LAN, WAN, MAN, ISO-OSI model of networking, Internet, ISP, WWW, Email, URL, Web browsers, websites, intranet, extranet.

### **UNIT – V**

DBMS, DBMS applications, Advantage of DBMS, Data abstraction, data model.

**References / Text  
Books:**

- Peter Norton, "Introduction to Computers, Tata Mc-Graw Hill.
- M N Doja, "Introduction to Computers and Information Technology"
- B. A. Forouzan, "Data Communication and Networking", TMH, 4th Ed., 2006.
- "An Introduction to Database Systems", C.J.Date, Pearson Education.
- C Programming by Yaswant Kanetkar

**Computer Usage /  
Software Requires:**

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