

Guidelines B.A.(Prog) DSC1

Unit	Syllabus	References
I	Introduction to Computers: Characteristics of computers, Uses of computers, Components of a digital computer, Types of computers.	[3] 1.3, 1.6, 1.7, 1.8
II	Number Systems: Binary, Octal and Hexadecimal number systems, Binary Coded Decimals (BCD), Binary Coded Octals (BCO), Binary Coded Hexadecimals (BCH), 1's complement, 2's complement, conversion from one number system to another, binary arithmetic (addition, subtraction), binary subtraction using 2's complement.	[2] Ch. 3 Pg 23-25, Ch. 5 Pg 51-57
III	Input and Output Devices: Keyboard, mouse, touch screen, joystick, scanners, web camera, MICR, OCR, OMR, bar-code reader, monitors, printers, plotters. Memory: Primary, secondary, auxiliary memory, RAM, ROM, cache memory, magnetic tape, magnetic disks, hard disk drives, optical disks, CD-R, DVD, flash drives, blue ray disc.	[2] Ch. 9 Pg 156-165, 167-171 [2] Ch. 7 116-118 Ch. 8 123-126, 130-132, 135-136, 138-139, 141-143, 145(including adv. & disadv.)
IV	Computer Organization and Architecture: C.P.U., registers, system bus, main memory unit, processors, motherboard, ports and interfaces, expansion cards, ribbon cables, SMPS, memory chips.	[3] 2.1, 2.2, 2.3, 2.8 (excluding 2.8.1 to 2.8.3)
V	Software: System software, application software, operating system and its functions and types.	[2] Ch. 10 Pg 180-183 (till application software)
VI	Overview of Emerging Technologies: Bluetooth, cloud computing, big data, data mining, mobile computing.	[1] Ch. 17.4 (excluding 17.4.1-17.4.2), 17.4.3

1. V. Raja Raman and N Adabala, Fundamentals of Computers, Prentice Hall of India Pvt. Ltd. New Delhi, 6th Edition (2015).
2. P K Sinha and Priti Sinha, Computer Fundamentals, BPB Publications New Delhi 6th Edition.
3. Anita Goel, Computer Fundamentals, Pearson Education, 2010
4. Reema Thareja, Fundamentals of Computers, Oxford University Press, 2014