

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Computer Science)
Semester: III
Syllabus with Effect from: June-2012

Paper Code: US03ECSC01	Total Credit: 2
Title Of Paper: Digital Computer Electronics	

Unit	Description in detail	Weighting (%)
I	Gates and Boolean Algebra Gates, Boolean algebra, Truth tables Circuit equivalence, De Morgan's theorems	25%
II	Basic Digital Logic Circuits-I Usage of Karnaugh maps Encoders, decoders, comparators	25%
III	Basic Digital Logic Circuits-II Half adder, full adder, binary adder-subtractor Multiplexers	25%
IV	Memory Elements & Counters D Flip flops Shift-left, shift-right and controlled buffer registers Ring counters	25%

Basic Text & Reference Books:-

- Malvino A. P.: Digital Computer Electronics, 2nd Edition, Tata McGraw, Hill Pub. Co. Ltd., New Delhi, 1990.
- Gothmann, William H.: Digital Electronics - An Introduction to Theory and Practice, 2nd Edition, PHI, 1982.

Books For Additional Reading:

- Tanenbaum A. S.: Structured Computer Organization, 3rd Edition, Prentice-Hall of India Pvt. Ltd., 1993.
- Hall Douglas V.: Microprocessors and Interfacing - Programming and Hardware. McGraw Hill Book Company, 1986.
- M.M. Mano: Computer System Architecture, 3rd Edition, Pearson Education, 2000.

