**CS205**                    **DIGITAL DESIGN**                                    **3-0-0-6**

*Syllabus :* Boolean Algebra and switching functions; Minimization and realization using logic gates, ROMs, PLAs, multiplexers; Circuits for code conversion; Flip-flops, registers, counters; Finite state model: State tables and diagrams; State minimization; Excitation functions of memory elements; Synthesis of synchronous sequential circuits; Representation and synthesis using ASM charts; Incompletely specified machines; Specification and synthesis of asynchronous sequential machines; Current trends in digital design: ASIC, FPGA, etc.; Number representation: fixed and floating point; Addition, subtraction, multiplication and division of numbers.

*Texts :*

1. M. Morris Mano and M. D. Ciletti, Digital Design, 4/e, Pearson Education, 2007.
2. R. H. Katz and G. Boriello, Contemporary Logic Design, 2/e, Prentice Hall of India, 2009.

*References :*

1. A. P. Malvino, D. P. Leach and G.Saha, Digital Principles and Applications, 7/e, McGraw Hill, 2010.
2. Z. Kohavi and N. Jha, Switching and Finite Automata Theory, 3/e, Cambridge University Press, 2010.
3. S. C. Lee, Digital Circuits and Logic Design, Prentice Hall of India, 2006.
4. J. F. Wakerly, Digital Design Principles and Practices, 4/e, Prentice Hall of India, 2008.