

Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Master of Science (Computer Applications & Information Technology)
Semester: II

Paper Code: CECS205		Total Credit : 4
Title of Paper: Digital Computer Electronics		Total Marks : 70
		Time : 3 Hrs
Unit		
	Description	Weighting
I	Number Systems- Binary , Octal , Decimal, Hexadecimal, Floating Point representation of numbers, Number base conversion, Binary Addition, Subtraction, Multiplication, Division, 2's complement arithmetic, BCD Numbers, The ASCII code ,The EXCESS-3 code ,The Gray code, Error correcting and correcting method	20%
II	Gates and Boolean Algebra Gates, Boolean algebra, Truth tables Circuit equivalence, De Morgan's theorem	20%
III	Basic Digital Logic Circuits-I Usage of Karnaugh maps Encoders, decoders, comparators	20%
IV	Basic Digital Logic Circuits-II Half adder, full adder, binary adder-subtractor Multiplexers	20%
V	Memory Elements & Counters D Flip flops, Shift-left, shift-right and controlled buffer registers Ring counters	20%
Basic Text & Reference Books :-		
1.	Malvino A. P.: Digital Computer Electronics,2nd Edition, Tata McGraw, Hill Pub. Co. Ltd.,New Delhi, 1990.	
2.	Gothmann, William H. : Digital Electronics - An Introduction to Theory and Practice, 2nd Edition,PHI,1982.	
3.	Tanenbaum A. S. : Structured Computer Organization, 3rd Edition, Prentice-Hall of India Pvt. Ltd., 1993.	
4.	Hall Douglas V. : Microprocessors and Interfacing - Programming and Hardware., McGraw Hill Book Company, 1986.	
5.	M.M. Mano : Computer System Architecture, 3rd Edition, Pearson Education, 2000.	

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Title of Paper: Digital Computer Electronics			
Unit	Description		Total Marks
I	Q.1 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.1 (B) Medium / Long Questions. (With Internal Option)	08	
II	Q.2 (A) Answer the Following. (Definitions, Blanks, Full Forms, True/False, Match the Following)	06	14
	Q.2 (B) Medium / Long Questions. (With Internal Option)	08	
III	Q.3 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.3 (B) Medium / Long Questions. (With Internal Option)	08	
IV	Q.4 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.4 (B) Medium / Long Questions. (With Internal Option)	08	
V	Q.5 (A) Short / Medium Questions (With Internal Option)	06	14
	Q.5 (B) Medium / Long Questions. (With Internal Option)	08	