C.U.SHAH UNIVERSITY Winter Examination-2018

Subject Name : Computer Organization and Architecture

	Subject Code : 4CS03COA1			Branch: M.Sc.C.A. & I.T. (Integrated)				
	Semest	er : 3 D	ate : 27/11/2018	Time : 02	2:30 To 05:30	Marks : 70		
	(1) (2) (3)	 nstructions: (1) Use of Programmable calculator & any other electronic instrument is prohibited. (2) Instructions written on main answer book are strictly to be obeyed. (3) Draw neat diagrams and figures (if necessary) at right places. (4) Assume suitable data if needed. 						
Q-1	a)	1 byte = A. 8	llowing questions: bit. B.16 pra A+A' =	C.32	D. 64	(14)		
		A.1	B.0 pra AA' = B.0	C. 2 C.2	D. 4 D.4			
		A. A	bra A+A = B. 0 bra A+1 =	C. A'	D. None of these	;		
	g)	Define term : A	B. 0 Figital electronics nalog electronics	C. 2	D. 4			
	h) i)	A. Static RAM	is types of RAM. B.Direct RAM is types of ROM. B. EDPROM	C. Symmetric RA C.ETPROM	M D. None of D. None of			
	k)	Define term : C Define term : H	omputer					
					D. None of D.None of			
	n)	Register is A. Sequential		C. Storage	D. None of	these		



Attempt any four questions from Q-2 to Q-8

Q-2	a) b)	Attempt all questions What is Combinational Circuit? Explain Full adder with Necessary circuit diagram. Explain Full Subtractor with Necessary circuit diagram.	(14) (7) (7)
Q-3	,	Attempt all questions	(14)
	a)	What is gate? Enlist types of Gate? Explain with truth table and circuit diagram.	(14)
Q-4	-	Attempt all questions What is Sequential Circuit? Explain JK flip flop with truth table and circuit diagram. Write a brief note on Decoder	(14) (7) (7)
Q-5	a)	Attempt all questions What is Perfect Induction Method? Prove Following through perfect induction method	(14) (10)
	b)	(1) $(AB)' = A' + B'$ (2) $(A+B)' = A'B'$ Draw the Circuit diagram of Carry and Sum in Half Adder.	(04)
Q-6		Attempt all questions	(14)
	a)	What is Encoder? Explain with suitable diagram.	(7)
		What is Multiplexer? Explain with suitable diagram.	(7)
Q-7		Attempt all questions	(14)
Q ⁻ /	a)	Explain Half Subtractor with diagram.	(14)
		What is de-multiplexer? Explain with suitable diagram.	(6) (6)
Q-8		Attempt all questions	(14)
τŭ	a)	What is Floating point representation? Explain with suitable example.	(7)
		Explain BCD(Binary Coded Decimal) with suitable example.	(7)
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