V.P. & R.P.T.P. Science College S.Y. B.Sc (SEMESTER III) INTERNAL EXAMNINATION – October - 2018 US03ECSC01 [Digital Computer Electronics]

Date: 05-10-2018, Friday		Time: 3.00	Time: 3.00 P.M. to 5.00 P.M. Max Marks: 50	
Q-1 M	Multiple Choice Question:		[08]	
a	nvert gate has only input a a) Two, One c) One, One	nd output. b) One ,Two d) None	P. P. Science Co	
a	A+A'B+A'B'=? a) 1 c) A	b) 0 d) A'	LIBRARY Bog	
f	A is a combinational circuit from the n coded inputs to a maximu a) Half Adder c) Encoder	-	nation	
a	n k-map, octets eliminates a) one c) three	variable. b) two d) four		
a	A gate is a logic circuit with one or m output signal. a) two c) three	ore input signals but only b) one d) four		
a	A is a memory element that a) binary adder c) multiplexer	t stores a binary digit. b) decoder d) flip-flop		
a	n D flip-flop, when CLK is high then a)high c)invert of input	output is b) low d) same as input		
c a	A register is the simplest kindigital word. a) shift-left c) buffer	nd of register; all it does st b) shift-right d) simple	ore a	
Q-2	Answer the following in short: (Atte	mpt Any Five)	[10]	
2] 3] 4] 5 5] 6]	Explain NOR & NAND gate. Draw the circuit for : A'B+B'C+AC' Describe Pair and Quad in k-map wi Simplify using k-map : F(A,B,C)=∑(Explain half adder in brief. Draw logic circuit of 1's complement Draw logic circuit of controlled buff	1,2,5) t adder-subtractor.	×	

8] Draw graphical symbol of D flip-flop.

Q - 3	Explain Associative law, distributive law and commutative law. OR		[08]
Q - 3	Explain De'morgan first and second theorem.		[08]
Q – 4	Explain sum of product (SOP) and product of sum (POS). OR	× .	[08]
Q – 4	Define encoder. Explain 8x3 encoder in detail.		[08]
Q - 5	Explain full adder in detail. OR		[08]
Q - 5	What is multiplexer? Explain 8x1 multiplexer in detail.		[08]
Q - 6	Explain shift left and shift right register. OR		[08]
Q - 6	Explain ring counters in detail.		[08]

----- All The Best -----