Master of Computer Application (MCA-I)(CBCS Pattern) First Semester **PSMCAT105.1 - Elective-I - Digital Electronics Paper-V**

P. Pages : Time : Thr	2 ee Hours	* 3 2 0 4 *	GUG/W/18/11093 Max. Marks : 80
Note	s : 1. All questi 2. Draw neat 3. Avoid vag	ons are compulsory and carry equal marks. t and clean diagram wherever necessary. gue answers and write specific answer related to	questions.
1.	Either:		
a)	Explain Real numb	8	
b)	Write the advantag	8	
		OR	
c)	Explain in detail H	exadecimal number system with suitable example	le. 8
d)	Explain: i) BCD	ii) Excess 3	8
2.	Either:		
a)	What is NOR and I	8	
b)	Give the truth table i) Ex-NOR iii) NOR	e for: ii) NAND iv) AND	8
		OR	
c)	Explain 9's and 10'	's complement with an example.	8
d)	Write the propertie	es of NOT, NAND and Ex-OR gates.	8
3.	Either:		
a)	Write in detail the	8	
b)	Explain: i) Encoder	ii) Decoder	8
		OR	
c)	Explain SOP and POS with suitable example.		8
d)	Explain De Morga	n's theorems in detail.	8

4.		Either:			
	a)	Explain the working of JKPSFF in detail.	8		
	b)	Describe the working of up-down counter in detail.	8		
		OR			
	c)	What is Ring Counter? Explain in detail.			
	d)	Explain: i) JKFF ii) JKMSFF	8		
5.		Solve all the questions.			
		a) Write a short note on ASCII code.	4		
		b) Describe Binary Multiplication in short.	4		
		c) Explain in brief about parity Detector.	4		
		d) Write a short note on TFF.	4		
