BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-I INFORMATION TECHNOLOGY : SUMMER : 2024
SUBJECT: DIGITAL ELECTRONICS

Day : Tuesday
Date : 14/05/2024

S-27658-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B. :

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Assume suitable data **WHEREVER** necessary.

Q.1	Illustrate the all numbering systems (Binary,hex.octal,Decimal).	**(10)**
	OR	
Q.1	Apply the knowledge of code converter Binary to BCD.	**(10)**
Q.2	Describe the all logic gates along with example.	**(10)**
	OR	
Q.2	Minimize the following expression using K-map and implements using logic gates $Y=\sum(4,5,6,7,12,13,14,15)$	**(10)**
Q.3	Explain Full adder with suitable diagram.	**(10)**
	OR	
Q.3	Design 16:1 multiplexer with suitable diagram.	**(10)**
Q.4	Describe JK and T flip flop in detail.	**(10)**
	OR	
Q.4	Explain SISO and PISO shift register.	**(10)**
Q.5	Differentiate Melay machine and Moore machine.	**(10)**
	OR	
Q.5	Describe ASM chart notation in detail.	**(10)**
Q.6	Explain types of Memories	**(10)**
	OR	
Q.6	Explain the architecture of PLA and PLD.	**(10)**

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