

Total No. of Questions—8]

[Total No. of Printed Pages—2

Seat No.	
-------------	--

[5559]-137

S.E. (E & TC/Electronics) (I Sem.) EXAMINATION, 2019
DIGITAL ELECTRONICS
(2015 PATTERN)

Time : Two Hours

Maximum Marks : 50

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.
- 5) Use of logarithmic tables, slide rule and electronic non programmable calculator is allowed.

- | | | | |
|----|----|--|----|
| Q1 | a. | Design 3 bit binary to grey code converter | 06 |
| | b. | Convert D F/F to J/K F/F | 06 |
| OR | | | |
| Q2 | a. | Design Even bit parity checker | 06 |
| | b. | Design 3 bit twisted ring counter | 06 |
| OR | | | |
| Q3 | a. | Design sequence detector to detect..10110.. | 06 |
| | b. | Give comparisons between TTL, ECL and CMOS logic families | 04 |
| | c. | Draw and explain SR Flip Flop using NAND gates. | 02 |
| OR | | | |
| Q4 | a. | Draw and explain TTL to CMOS interface. | 06 |
| | b. | Compare Moor and Mealy Machine | 04 |
| | c. | What is Clock Skew and C'lock jitter? | 02 |
| Q5 | a. | Implement following using PLA
$F1 = AB' + AC + A'BC'$
$F2 = (AC + BC)$ | 06 |
| | b. | List Various semiconductor memory with their characteristic. | 07 |

P.T.O.

Q6	a	Explain PROM with diagram	06
	b	List Various Programmable logic Devices with their characteristic	07
Q7	a	List & explain Mode of Timer/ Counter for 8051	05
	b	Write short note on 8051 feature	04
	c	Mention any four addressing modes of 8051?	04
		OR	
Q8	a	Draw and explain Program Status Word	05
	b	Compare Microcontroller & Microprocessor	04
	c	Explain the Instruction for arithmetic's with examples	04