

Course Code: 1930405

Roll No:

MLRS- R19



MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

II B.Tech I Sem Supplementary Examination, July-2022

Analog and Digital Electronics

(CSE & IT)

Time: 3 Hours.

Max. Marks: 70

Note: 1. Answer any FIVE questions.

2. Each question carries 14 marks and may have a, b as sub questions.

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| 1 | a) Draw and explain the V-I Characteristics of a P-N Junction diode. | 7M | CO1 | BL4 |
| | b) Define Diffusion Capacitance and also derive the expression for C_D ? | 7M | CO1 | BL6 |
| 2 | Draw the clipping circuits and explain its operation with suitable waveforms | 14M | CO1 | BL4 |
| 3 | a) Explain the input and output characteristics of Common Emitter Configuration | 7M | CO2 | BL4 |
| | b) What is the difference between single stage and multistage amplifier? | 7M | CO2 | BL2 |
| 4 | Draw a neat circuit diagram of Common Base amplifier and Explain its working? | 14M | CO2 | BL4 |
| 5 | a) Explain V-I Characteristics of MOSFET with neat diagrams | 7M | CO3 | BL4 |
| | b) Draw and explain Common Drain(CD) amplifier with suitable diagrams | 7M | CO3 | BL4 |
| 6 | Design a NAND gate in DTL Logic and Explain its operation with truth table. | 14M | CO3 | BL6 |
| 7 | a) Draw the logic diagram of 4 to 1 line Multiplexer | 7M | CO4 | BL1 |
| | b) Explain the working of 4-bit Magnitude Comparator | 7M | CO4 | BL4 |
| 8 | Explain in detail Universal Shift Register with neat diagrams | 14M | CO5 | BL4 |

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