

S. B. Roll. No.....

DIGITAL ELECTRONICS
3rd Exam/ECE/CSE/IT/0195/Dec'22
(For 2018 Batch Onwards)

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Do as directed.

15x1=15

- 1's complement of 010001 is _____
- A SC II is _____ bit code.
- _____ signal varies continuously with time.
- BCD stands for _____
- SIPO stands for _____
- Boolean rule $(A+B)(A+C) =$ _____
- RAM stands for _____
- Define Parity.
- Define Counter.
- IC74194 is _____ shift register.
- The conversion time of successive approximation ADC is constant. (T/F).
- The fastest A/D converter is _____
- Add the BCD number- 1001 to 0100
- What do the letter R and S stands for the term "RS latch"?
- Draw symbol of XOR Gate.

SECTION-B

Q2. Attempt any six questions.

6x5=30

- Differentiate between analog and digital signal.
- Explain Universal Property of NAND Gate.
- Draw and explain the circuit of Full Adder.
- With the help of neat diagram explain the working of JK Flip Flop.
- What are shift register? Give its type.
- Describe the working of seven segment display.
- Explain the working of weighted register D/A Converter.
- Differentiate weighted and Non-Weighted codes.

SECTION-C

Q3. Attempt any three questions.

3x10=30

- Discuss the OR, NOT, AND, NAND, NOR Gates with their symbol & truth tables.
- Draw the diagram and explain the working of 3 to 8 line decoder circuit.
- Write a short note on the following : a) ASC II Code b) Parity
- With the help of diagram explain the working of successive approximation type A/D Converter.
- Minimize and realize following logic function using K-map $(A, B, C, D) = \sum m (0, 1, 2, 5, 8, 9, 10)$