

1903000203020092/1911000303020092
EXAMINATION FEBRUARY-MARCH 2024
BACHELOR OF SCIENCE (THIRD SEMESTER)
ELECTRONICS PAPER – IV
ADVANCE DIGITAL ELECTRONICS & CIRCUIT DESIGN

[Time: As Per Schedule]

[Max. Marks: 50]

Instructions:

1. Fill up strictly the following details on your answer book
 - a. Name of the Examination : **BACHELOR OF SCIENCE (ELECTRONICS) (THIRD SEMESTER)**
 - b. Name of the Subject : **ELECTRONICS PAPER – IV ADVANCE DIGITAL ELECTRONICS & CIRCUIT DESIGN**
 - c. Subject Code No : **1903000203020092/1911000303020092**
2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.
5. All symbols and abbreviations have their usual meaning.
6. Non-programmable calculators are allowed.
7. Q.1 is compulsory.
8. Assume data if necessary.

Seat No:

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Student's Signature

Q.1 Answer in short:

08

- a) Give two examples of expressions in SOP form.
- b) What is a controlled inverter?
- c) What is a magnitude comparator?
- d) Define Access time.

Q.2

- a) Draw the circuit diagram for the RS flip-flop and explain its working.
- b) Show how SR flip-flop can be converted into a D flip-flop.

08

06

OR

- a) What is the difference between serial and parallel transfer? Explain how to convert Serial data to parallel.
- b) Describe the parallel in parallel out shift register.

08

06

- Q.3** a) Draw and explain the gray to binary code converter. **08**
 b) Explain: Three variables K-map. **06**

OR

- a) Draw and explain the logic diagram of MOD-10 count up ripple counter using count reset. **08**
b) Write the classification of counter. **06**

Q.4 Write short note on (Any TWO) 14

- a) D flip-flop
b) Up counter
c) 4 bit parallel binary adder
d) Random Access Memory
