

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

DIGITAL ELECTRONICS
3rd Exam/ECE/CSE/IT/0195/Jun'2021
(For 2018 Batch onwards)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. $(CDA)_{16} = (\quad)_2 = (\quad)_{10}$
- ii. Reduce the expression using karnaugh map $\sum m (1,2,4,5,6,12,13,14)$
- iii. With the help of neat diagram explain the working of JK flip flop.
- iv. Explain briefly the following characteristics in relation to digital logic families
 - a) Propagation delay
 - b) Fan in
 - c) Fan out
 - d) Noise immunity.
- v. What is a full adder circuit? Explain with help of a diagram and truth table.
- vi. Explain the working of weighted register D/A converter.

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. With the help of a diagram explain the working of successive approximation type A/D converter.
- b. With the help of a neat diagram explain the working of three bit asynchronous counter.
- c. Draw the diagram and explain the working of 3 to 8 line decoder circuit.
- d. Write short notes on the following.
 - i) IC 7495
 - ii) TTL logic family.