



Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Electrical & Electronics Engineering / Electrical Engineering)
(Sem.-4)

DIGITAL ELECTRONICS

Subject Code :BTEE-40¹-18 M.Code :77606

Date of Examination : 02-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Realize $A'B + AB'$ using NAND gate.
- b) State Duality theorem.
- c) Draw 2:4 decoder.
- d) What are the advantages of CMOS?
- e) Draw 4 bits parallel to serial shift register.
- f) What are the disadvantages of weighted register?
- g) Give the memory organization.
- h) Explain the limitation of K-map.

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- i) Enlist various counters.
- j) Explain BCD codes.

SECTION-B

- 2. Convert 79 and 56 decimal numbers in other number systems.
- 3. Draw and explain 32:1 Mux using 2:1 Mux only.
- 4. Design JK flip flop using SR flip flop.
- 5. Design voltage to frequency and voltage to time conversion converters.
- 6. Draw and explain 3 bit up down synchronous counter.

SECTION-C

- 7. Draw and explain the various types of TTL logic family.
- 8. Design Binary to Grey code and Grey to binary code converters.
- 9. Explain the various types of digital to analog converters.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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