


RAN-2403000502039001
B.Sc. (Sem. II) Examination April - 2026
ELEC-MN-201-Electronics Paper-I : Semiconductor Devices & Logic Circuits
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book.

Seat No.:

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Student's Signature

Q. 1 One word or short answer (Any 5)
(5)

1. What happens to depletion layer under reverse bias?
2. What is mean by minority carriers?
3. Define : Pinch off voltage with respect to FET.
4. Define quad in K-map.
5. What is a D-flip-flop?
6. What do you understand by a universal shift register?

Q. 2 Answer (any 1)
(10)

1. What is an p-type semiconductor? How is it formed?
2. What is transistor? Discuss the constructional details of a transistor.

Q. 3 Answer (any 1)
(10)

1. What is K-map? Draw K-map and Develop expression using K-map and construct circuit.

$$F(A,B,C,D) = \sum_{\min} (1,3,5,7,8,9,12,13)$$

2. Draw and explain Binary counter.