



RAN-2303000501039001

F.Y.B.Sc. (Sem. - I) Examination November - 2025
EL-ME-101-Basics of Electronics (Paper - Elective-I)

[Total Marks: 25

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)

(05)

1. Give the colour code for $3.3K\Omega \pm 5\%$
2. What is constant current source?
3. State Kirchhoff's voltage law.
4. What is Multiplexer?
5. Mention Special Logic gates.
6. What is Truth table?

Q.2. Answer (any 2)

(10)

1. Discuss Colour code for Resistor.
2. What is a Switch. Write short note on Relay.
3. What is LDR and discuss its application

Q.3. Answer (any 2)

(10)

1. Convert Hexadecimal BCA in to binary, decimal and Octal. Use mathematical steps.
2. Why are NOR and NAND Gates called Universal gates? Explain with example.
3. Simplify the expression $F = ABC + \overline{A}BC + A\overline{B}C$