



RAN-2303000501049001

B.Sc. (NCF-NEP) (Sem. - I) Examination November - 2025 EL-MDC-101-Fundamentals of Electronics Theory

Time: 1 Hours]

[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. Write the answer briefly: (Any five) (10)**
1. What is the full form of VDR?
 2. What happens to the total capacitance when two capacitors are connected in series?
 3. Give names of different types of resistors
 4. What do you mean by intrinsic semiconductor?
 5. What do you mean by opto-isolators?
 6. Briefly explain Photovoltaic Cell.
- Q.2. Write any two from the following: (10)**
1. Discuss dielectric constant and dielectric losses
 2. Explain series and parallel combination of resistors
 3. Explain fixed, variable, and carbon film resistors
- Q.3. Write any two from the following: (10)**
1. Explain the working and application of LCD.
 2. Describe how the depletion region is formed in PN junction diode.
 3. Explain the construction and working principle of a Light Emitting Diode (LED).
How does it emit light, and what materials are commonly used in its fabrication?