TED (15) – 2031

(REVISION — 2015)

Reg. No. .....

Signature .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

BASIC ELECTRICAL ENGINEERING

[*Time* : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. Define specific resistance and write its unit.
2. Write the equation for parallel connection of two resistors.
3. State Kirchhoff's current law.
4. Mention electric flux density.
5. Write the equation for energy stored in inductor. (5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. The resistance of a wire increases from 40Ω at 20°C to 50Ω at 70°C. Find the temperature coefficient of resistance at 0°C.
2. Write short note about electrical power and electrical energy.
3. Derive the equation for effective resistance when the resistance Rl, R2, R3 are connected in Series.
4. Explain voltage division rule in series circuit of resistance with neat figure.
5. State the laws of electrostatics.
6. Explain dynamically induced emf and statically induced emf.
7. Compare magnetic circuit and electric circuit. (5×6 = 30)