

Int IT IMS & CS (NEP) Sem.-1 Examination**MDC-IMS-114T****Basics of Electronics****Time : 1-00 Hour]****February-2025****[Max. Marks : 25****Instructions:**

- **Figures to the right indicate Full Marks.**
- **Do not use scientific calculator.**

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| Q.1 | Explain the structure of an Atom with diagram. Difference between Conductors, Semiconductors and Insulators. | 05 |
| Q.2 | Explain in brief: Charging and Discharging of Capacitor with diagram. OR | 05 |
| Q.2 | Find resistance value with below Resistor Colour Codes: "Yellow Green Red Orange Brown" and Chip resistor Code: "3189" | |
| Q.3 | Explain in detail NAND Gate. Solve the following conversion of Hexadecimal to Octal: 649E. OR | 05 |
| Q.3 | Explain in detail NOR Gate. Solve the following conversion of Octal to Hexadecimal: 4756. | |
| Q.4 | What is Doping? Explain in brief the Semiconductors and types of Semiconductors with diagram. OR | 05 |
| Q.4 | Explain in detail the working process of LED with diagram. | |
| Q.5 | Explain in detail what is the process of Laser Diode with diagram. | 05 |