

Siddharth University Kapilvastu, Siddharth Nagar

B.SC. Electronics



MINOR Elective course

B.Sc(Electronics)

Minor Syllabus

- 1- Semiconductor Physics:- Elementary idea of energy bands; Difference between semiconductor, metal and insulators; Intrinsic and extrinsic semiconductors, Minority and Majority charge carriers; Drift and diffusion currents; Voltmeter, Ammeter.
- 2- Junction:- Metal-Metal Junction and Contact Potential; Metal-Semiconductor Junction; P-n Junction; Barrier formation; Barrier Potential; width and capacitance of depletion region; Current flow in biased P-n Junction.
- 3- Number System:- Base or radix, Decimal, Binary, Octal and hexadecimal system, Inter conversion of numbers from one system to the other; Binary addition, subtraction, multiplication and division; BCD and hexadecimal codes.
- 4- Boolean Algebra and Logic gates:- Boolean function; Unary, null, identity and complement functions; corresponding logic gates NOT, OR, SUM, NAND, NOR, COINCIDENCE, their symbol and truth tables; Basic Postulates and laws of Boolean algebra.

