

**SIKKIM MANIPAL UNIVERSITY**

**SYLLABUS OF**

**Ph.D ENTRANCE EXAMINATION**

**Department of Electronics and Communication Engineering  
Sikkim Manipal Institute of Technology**

<b>Module</b>	<b>Topics</b>
<b>Module 1: Basic Electronics:</b>	Diode, special purpose diode, Transistor, Transistor Biasing.
<b>Module 2: Digital Electronics:</b>	Boolean algebra, Logic gates, combinational circuits, sequential circuits, Logic families.
<b>Module 3: Signals &amp; Systems:</b>	Types of signals, singularity functions, types of systems, properties, convolution theorem.
<b>Module 4: Communication Systems:</b>	AM, FM, PM, ASK, FSK, PSK, QPSK, M-ary PSK, QAM.
<b>Module 5: Antenna &amp; Microwave Engineering:</b>	Yagi-Uda, Log periodic, Horn, Reflector, Microstrip antenna, isolator, circulator, klystron, magnetron, microwave cavity, wave guide, microwave circuit parameters.