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Study Plan of Electronics and Experimental Methods for Pre-recorded Batches

(For NET-JRF, GATE, JEST, TIFR Aspirant and M.Sc Students)

Days	Enter Your Dates	Topic no. 6 Electronics and Experimental Methods
Day 1		Lecture-1 Network Analysis Part-1 (Electronics and Experimental Methods)
		Lecture-2 Network Analysis Part-2 (Electronics and Experimental Methods)
Day 2		Lecture-3 Network Analysis Part-3 (Electronics and Experimental Methods)
		Class Test 1: Network Analysis (Electronics and Experimental Methods)
Day 3		Lecture-4 Semi-conductor Physics Part-1 (Electronics and Experimental Methods)
		Lecture-5 Semi-conductor Physics Part-2 (Electronics and Experimental Methods)
Day 4		Lecture-6 Drift and Diffusion Current (Electronics and Experimental Methods)
		Class Test 2: Semiconductor Physics (Electronics and Experimental Methods)
Day 5		Lecture-7 Physics of PN Junction Diode Part-1 (Electronics and Experimental Methods)
		Lecture-8 Physics of PN Junction Diode Part-2 (Electronics and Experimental Methods)
Day 6		Lecture 9: Physics of pn Junction diode Part - 3 (Electronics and Experimental Methods)
		Lecture 10: DC Analysis of pn Junction Diode (Electronics and Experimental Methods)
Day 7		Lecture 11: Rectifier using pn junction diode (Electronics and Experimental Methods)
		Lecture 12: Clipper Circuit Part - 1 (Electronics and Experimental Methods)
Day 8		Lecture 13: Clipper Circuit Part - 2 (Electronics and Experimental Methods)
		Lecture 14: Clamper Circuit Other ac Application (Electronics and Experimental Methods)
Day 9		Lecture 15: Zener Diode and its Applications (Electronics and Experimental Methods)
		Class Test 3: PN Junction Diode and their Applications (Electronics and Experimental Methods)
Day 10		Lecture 16: Bipolar Junction Transistor Basics (Electronics and Experimental Methods)
		Lecture 17: DC Biasing of CE Transistor - Part -1 (Electronics and Experimental Methods)
Day 11		Lecture 18: DC Biasing of CE Transistor - Part -2 (Electronics and Experimental Methods)
		Lecture 19: DC Biasing of CE Transistor - Part -3 (Electronics and Experimental Methods)
Day 12		Lecture 20: DC Biasing of CE Transistor - Part - 4 (Electronics and Experimental Methods)
		Lecture 21: AC Analysis of CE Transistor - Part -1 (Electronics and Experimental Methods)
Day 13		Lecture 22: AC Analysis of CE Transistor - Part -2 (Electronics and Experimental Methods)
		Lecture 23: Miscellaneous Example on AC Analysis (Electronics and Experimental Methods)
		Class Test 4: Bipolar Junction Transistors, DC and AC Analysis (Electronics and Experimental Methods)
Day 14		Lecture 24: Basics of OP-AMP (Electronics and Experimental Methods)
		Lecture 25: Non Inverting OP-AMP with Feedback (Electronics and Experimental Methods)
Day 15		Lecture 26: Inverting and differential mode with Feedback (Electronics and Experimental Methods)
		Lecture 27: Summing, Scaling, Averaging Amplifier (OP-AMP) (Electronics and Experimental Methods)
Day 16		Lecture 28: Integrator Circuit (OP-AMP) (Electronics and Experimental Methods)
		Lecture 29: Differentiator Circuit (OP-AMP) (Electronics and Experimental Methods)
Day 17		Lecture 30: OP-AMP Circuit with Diode (Electronics and Experimental Methods)
		Lecture 31: Filter Circuit (OP-AMP) (Electronics and Experimental Methods)

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Day 18		Lecture 32: Oscillator Circuit (OP-AMP) (Electronics and Experimental Methods)
		Lecture 33: Comparator and Voltage Limiter (OP-AMP) (Electronics and Experimental Methods)
		Class Test 5: Operational Amplifier (Electronics and Experimental Methods)
Day 19		Lecture 34: Number System (Digital Electronics)
		Lecture 35: Representation of Signed Binary Numbers (Digital Electronics)
Day 20		Lecture 36: Binary Addition and Subtraction (Digital Electronics)
		Lecture 37: Basic Rules of Boolean Algebra (Digital Electronics)
Day 21		Lecture 38: Cannonical form of Boolean Function (Digital Electronics)
		Lecture 39: Karnaugh Map (Digital Electronics)
Day 22		Lecture 40: Basic Gates and Their Implementation (Digital Electronics)
		Lecture 41: Combinational Circuit (Digital Electronics)
Day 23		Lecture 42: Miscellaneous Example on Combinational Circuit (Digital Electronics)
		Lecture 43: Decoder, Demux, Encoder and MUX (Digital Electronics)
Day 24		Lecture 44: Latches & Edge Trigger Flip Flop (Digital Electronics)
		Lecture 45: Master Slave Flip Flop (Digital Electronics)
Day 25		Lecture 46: Asynchronous and Synchronous Counter (Digital Electronics)
		Lecture 47: Shift Register (Digital Electronics)
Day 26		Lecture 48: Analysis of Clock Sequential Circuit (Digital Electronics)
		Lecture 49: D/A and A/D Converter Part-1 (Digital Electronics)
Day 27		Lecture 50: D/A and A/D Converter Part-2 (Digital Electronics)
		Class Test 6: Digital Electronics Part-1 (Electronics and Experimental Methods)
		Class Test 7: Digital Electronics Part-2 (Electronics and Experimental Methods)
Day 28		Lecture 51: Concept of Errors, Precision and Accuracy in Measurements (Experimental Methods)
		Lecture 52: Root Mean Squared Error and Significant Digits (Experimental Methods)
Day 29		Lecture 53: Data Characterisation and Standard Deviation (Experimental Methods)
		Lecture 54: Error Propagation Part-1 (Experimental Methods)
Day 30		Lecture 55: Error Propagation Part-2 (Experimental Methods)
		Lecture 56: Least Squared Fit (Experimental Methods) (END of Electronics & Experimental Methods)
		Class Test 8: Experimental Methods (Electronics)