

MODULE 4 – ELECTRONIC FUNDAMENTALS

Sl. No.	Topics to be Covered	Level
		B1.1
4.1.	SEMICONDUCTORS	
4.1.1.	DIODES	
	a. Diode symbols, Diode characteristics and properties;	2
	b. Diodes in series and parallel;	
	c. Main characteristics and use of silicon-controlled rectifiers (Thyristor), light emitting diode, photo conductive diode, varistor, rectifier diodes;	
	d. Functional testing of diodes.	
4.1.2.	TRANSISTORS	
	a. Transistor symbols;	1
	b. Component description and orientation;	
	c. Transistor characteristics and properties.	
4.1.3.	INTEGRATED CIRCUITS	
	a. Description and operation of logic circuits and linear circuits/operational amplifiers.	1
4.2.	PRINTED CIRCUIT BOARDS	
	a. Description and use of printed circuit boards.	1
4.3.	SERVOMECHANISM	
	a. Understanding of the following terms: Open and closed loop systems, feedback, follow up, analogue transducers;	1
	b. Principles of operation and use of the following synchro system components/features: resolvers, differential, control and torque, transformers, inductance and capacitance transmitters.	