

## Digital Electronics Lab Training Modules

### ME 680 - Basic Logic Gates

#### Objective :

- Basic Logic Gates Apparatus has been designed to verify the truth table for 'OR' Gate, 'AND' Gate, 'NOT' Gate, 'NOR' Gate & 'NAND' Gate, using diodes & transistors.

#### Technical Specifications :

##### Inbuilt Fixed / Variable DC Regulated Power Supply

- Output Voltages : 5VDC

#### Components Provided

- Input Logic 0 or 1 : 2 Nos.
- Output Indicator : 1 No.
- Glass Epoxy PCB used as front panel of 270mm x 170mm & mounted on light Weight shock proof plastic cabinet
- Circuit diagram printed on Glass Epoxy PCB & all important IC's & test points are brought out on front panel
- Power requirement : 230 VAC 10%, 50Hz.
- Weight : 1.0 Kg Approx.
- Dimensions (mm) : 300(L) x 175(B) x 75(H)

#### Standard Accessories :

- Power chord, Patch chords & Instruction manual.

### ME 690 - Verification of Boolean Algebra and Demorgan's Theorems

#### Objective :

- Digital Trainer to verify the following Experiments :
  - Verification of Basic Logic Gates,
  - Verification of Boolean Algebra,
  - Verification of Demorgan's Theorems.



#### Technical Specifications :

##### Inbuilt Fixed / Variable DC Regulated Power Supply

- Output Voltages : 5VDC

#### Gates & Components Provided

- 3 input AND Gates : 5 Nos.
- 3 input OR Gates : 5 Nos.
- NOT Gates : 4 Nos.
- 2 input EX-OR Gate: 1 Nos.
- logic inputs 0 or 1 : 6 Nos. ( Through SPDT Switches)
- Output Indicator : 2 Nos.
- Glass Epoxy PCB used as front panel of 270mm x 170mm & mounted on light Weight shock proof plastic cabinet
- Circuit diagram printed on Glass Epoxy PCB & all important IC's & test points are brought out on front panel
- Power requirement : 230 VAC 10%, 50Hz.
- Weight : 1.0 Kg Approx.
- Dimensions (mm) : 300(L) x 175(B) x 75(H)

#### Standard Accessories :

- Power chord, Patch chords & Instruction manual.

### ME 692 - Realisation of Logic Gates Using NAND & NOR Gates

#### Objective :

- NAND & NOR GATES are designed to study the universal characteristics i.e. to construct the following :
  - 'AND' Gate, 'OR' Gate, 'NOT' Gate & 'NOR' Gates using NAND Gates.
  - 'AND' Gate, 'OR' Gate, 'NOT' Gate & 'NAND' Gates using NOR Gates.

#### Technical Specifications :

##### Inbuilt Fixed / Variable DC Regulated Power Supply

- Output Voltages : 5VDC

#### Gates & Components Provided

- NAND Gates : 4 Nos.
- NOR Gates : 4 Nos.
- Logic inputs 0 or 1 : 2 Nos.
- Output Indicator : 1 No.
- Glass Epoxy PCB used as front panel of 270mm x 170mm & mounted on light Weight shock proof plastic cabinet
- Circuit diagram printed on Glass Epoxy PCB & all important IC's & test points are brought out on front panel
- Power requirement : 230 VAC 10%, 50Hz.
- Weight : 1.0 Kg Approx.
- Dimensions (mm) : 300(L) x 175(B) x 75(H)

#### Standard Accessories :

- Power chord, Patch chords & Instruction manual.