

## Digital Electronics Lab Training Modules

### ME711 - Decade Modulo 'N' Counters

**Objective :**

- Decade Modulo n Counters has been designed to study the following Counters:
  - A.Forward Counter.
  - B.Reverse Counter.
  - C.Modulo Counter.

**Technical Specifications :**

**Inbuilt Fixed / Variable DC Regulated Power Supplies**

- Output Voltages : 5VDC

**IC's & Components Provided**

- IC : 74190
- Logic inputs 0 or 1 : 4 Nos. ( Through SPDT Switches )
- Output Indicator : 4 Nos
- Monoshot Clock : 1 Hz
- 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.

### ME712 - Adders and Subtractors Using NAND Gates

**Objective :**

- 4 Bit Counters (Synchronous & Asynchronous) has been designed to study the following Counters:
  - Asynchronous Counters.
    - A.Forward Counter.
    - B.Reverse Counter.
    - C.Modulo Counter.
  - Synchronous Counters.
    - A.Forward Counter.
    - B.Reverse Counter.
    - C.Programmable Counter.
    - D.Decade Counter.
  - Ring Counter.
  - Jhonsen Counter.

**Technical Specifications :**

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

- Output Voltages : 5VDC

**IC's & Components Provided**

- IC : 7476 (2 Nos.)  
: 74193  
: 74190  
: 7420
- Logic inputs 0 or 1 : 4 Nos. ( Through SPDT Switches )
- Monoshot Clock : 1 Hz
- Glass Epoxy PCB used as front panel of 300mm x 220mm & 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 : 2.0 Kg Approx.
- Dimensions (mm) : 330(L) x 225(B) x 75(H)

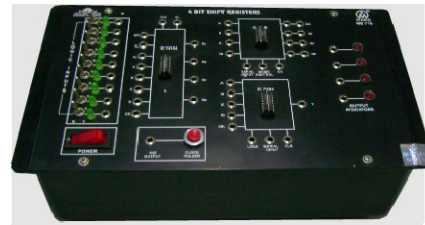
**Standard Accessories :**

- Power chord, Patch chords & Instruction manual.

### ME716 - 4-Bit Shift Registers

**Objective :**

- Shift Register Apparatus has been designed to study the following :
  - A.Universal Shift Register (IC 74194).
  - B.Serial in, Parallel out Shift Register (IC 7495).
  - C.Parallel in, Parallel out Shift Register (IC 7495).
  - D.Parallel in, Serial out Shift Register (IC 7494).
  - E.Serial in, Serial out Shift Register (IC 7494).



**Technical Specifications :**

**Inbuilt Fixed DC Regulated Power Supply**

- Output Voltages : 5VDC

**IC's & Indicator Provided**

- IC : 7495  
: 74194  
: 7494
- Logic Inputs : 9 Nos.
- Monoshot clock : 1 Hz
- Output Indicator : 4 Nos.
- Glass Epoxy PCB used as front panel of 270 mm x 170mm & mounted on light weight shock proof plastic cabinet.
- Symbol diagram printed on Aluminum Front Panel & all important test Points Are brought out on front panel
- Power requirement : 230 VAC 10%, 50Hz.
- Weight : 1.0Kg Approx.
- Dimensions (mm) : 300(L) x 175(B) x 75(H)

**Standard Accessories :**

- Power chord, Patch chords & Instruction manual.