**SEMICONDUCTOR DEVICES CHARACTERISTICS TRAINER**

**Junction Diode Characteristics with Two Meters**

 Variable DC regulated power supply of 0-15V @ 250mA

 On Board silicon and germanium diodes

 Dual Range DC Voltmeter of 1.5V/15V

 Dual Range DC Ammeter of 250μA/25mA

 Different values of three resistors on board

**Junction Diode Characteristics without Meters**

 Variable DC regulated power supply of 1.5V/15V @ 250mA

 On Board silicon and germanium diodes

**Zener Diode Characteristics with Two Meters**

 Variable DC regulated power supply of 0-15V @ 250mA

 Different values of three zener diodes on board

 Different values of three resistors on board

 Dual Range DC Voltmeter of 1.5V/15V

 Dual Range DC Ammeter of 250μA/25mA

**Zener Diode Characteristics without Meters**

 Variable DC regulated power supply of 1.5V/15V @ 250mA

 Different values of two zener diodes on board

**B J T Characteristics with Two Meters**

 Two Variable DC regulated power supplies of 0-15V @ 250mA

 One NPN and one PNP transistor on board

 Dual Range DC Voltmeter of 1.5V/15V

 DC milli ammeter of 0-10mA

 DC micro ammeter of 0-150μA

**B J T Characteristics without Meters**

 Two Variable DC regulated power supplies of 0-12V @ 250mA

 One NPN and one PNP transistor on board

**Transistor,Junction and Zener Diode Characteristics with Three Meters**

 Two Variable DC regulated power supplies of 0-15V @ 250mA

 Different values of resistors, zener diodes and three types of PN junction diodes.

 Dual Range DC Voltmeter of 1.5V/15V

 Dual Range DC Ammeter of 2.5mA/250mA

 DC micro ammeter of 150μA

**F E T Characteristics with Two Meters**

 Two Variable DC regulated power supplies of 0-5V,0-15V @ 250mA

 Two different values of resistors on board

 Dual range DC voltmeter of 1.5/15V

 DC Ammeter of 0-10mA

**MOSFET Characteristics**

 Variable DC power supplies 0-15V and 0-30V

**U J T Characteristics with Two Meters**

 Two Variable DC regulated power supplies of 0-12V @ 250mA

 Two values of resistors on board

 DC Voltmeter of 0-15V

 DC Ammeter of 0-10mA

**Measurement of h-Parameters of a Transistor**

 Two Variable DC regulated power supplies of 0-12V @ 250mA

 Two different circuits on boards one to measure hie, hfe and another for hoe,hre

**Photo Diode & Photo Transistor Characteristics**

 Two Variable DC regulated power supplies of 0-12V,0-6V @ 250mA

 Different values of four resistors on board.

 One 10kΩ potentiometer on board.

 6V/3W miniature bulb on board

 One photo diode and one photo transistor on board

**Solar Cell Characteristics**

 Built in digital voltmeters and ammeters with 20V and 2000mA ranges respectively

 Different values of resistors and one potentiometer to observe different outputs.

 Variable light source provided on board

**Energy Gap of a Semiconductor**

 Fixed DC regulated power supply of 0-1V/10V @ 250mA

 One micro ammeter on board

 One PN junction diode

 One ten turn potentiometer for voltage variation

**Thermistor Characteristics**

 Variable DC regulated power supply of 0-5V @ 250mA

 One Galvanometer on board

 One thermistor on board

 1KΩ potentiometer with calibrated dial on board for balancing bridge.

**L D R Characteristics**

 Two Variable DC regulated power supplies of 0-6V, 0-12V @ 0.25A

 One LDR and one miniature bulb provided on board

**S C R Characteristics Trainer**

 Built in various power supplies of 0-30V, 0-12V

 S C R is provided on board

**TRIAC Characteristics Trainer**

 Built in Variable power supplies of 0-15V, 0-30V

 TRIAC is provided on board

**DIAC Characteristics Trainer**

 Built in Variable power supplies of 0-30V

 DIAC is provided on board

**Triggering SCR using UJT**

 Built in fixed voltage supply AC of 24V

 Zener diode of 7.5V is provided to limit supply to UJT.