SPECIFICATIONS OF ELECTRONICS INSTRUMENTATION LAB EQUIPMENTS

SL NO	NAME OF ITEM
1	**DC-DC converter:** PWM Controller MOSFET Power circuit DC Power supply **PWM Controller:** One number of TL494 IC Based PWM controller for converter power circuits Potentiometer is provided to vary the PWM Duty cycle ratio Potentiometer is provided to vary the PWM Frequency Necessary test points are provided to study the PWM Controller PWM output is terminated in connector for MOSFET power circuit patching **MOSFET Power circuit:** One number of IRF250 Power MOSFET with proper heat sink is provided for power circuit One number of High Frequency Inductor and output filter is provided One number of Fixed Load resistor is provided PWM ISOLATOR IC and DRIVER ICs are provided for MOSFET power circuits PWM amplifications Necessary test points & PWM input connector are provided **Specifications** **Power circuit Inputs 10**-20VDC **Output** 5VDC @ Power supply One number of Fixed dc power supply is provided for power circuit inputs
2	**Push pull DC- DC Converter:** **PWM Controller:** One number of TL494 IC Based PWM controller for converter power circuits Potentiometer is provided to vary the PWM Duty cycle ratio Potentiometer is provided to vary the PWM Frequency Necessary test points are provided to study the PWM Controller PWM output is terminated in connector for MOSFET power circuit patching **MOSFET Power circuit:** Two number of IRF250 Power MOSFET with proper heat sink is provided for power circuit One number of High Frequency Transformer, Inductor /output filter is provided One number of Fixed Load resistor is provided PWM ISOLATOR IC and DRIVER ICs are provided for MOSFET power circuits PWM amplifications Necessary test points & PWM input connector are provided **Specifications** **Power circuit Inputs 10**-20VDC **Output** 5VDC @ Power supply One number of Fixed dc power supply is provided for power circuit inputs

3	**Simple SMPS:** **PWM Controller:** One number of TL494 IC Based PWM controller for converter power circuits Potentiometer is provided to vary the PWM Duty cycle ratio Potentiometer is provided to vary the PWM Frequency Necessary test points are provided to study the PWM Controller PWM output is terminated in connector for MOSFET power circuit patching **MOSFET Power circuit:** One number of IRF250 Power MOSFET with proper heat sink is provided for power circuit One number of High Frequency transformer and output filter is provided One number of Fixed Load resistor is provided PWM ISOLATOR IC and DRIVER ICs are provided for MOSFET power circuits PWM amplifications Necessary test points & PWM input connector are provided Current sensing resistors are provided in varies place for current wave form measurements **Specifications** **Power circuit Inputs** 5-20VDC **Output** 5VDC @ 1AMP **Power supply** One number of 0-30v@2A Variable dc power supply with ammeter & Voltmeter is provided for power circuit inputs
4	**Half bridge and full bridge converters:** **PWM Controller:** One number of TL494 IC Based PWM controller for converter power circuits Potentiometer is provided to vary the PWM Duty cycle ratio Potentiometer is provided to vary the PWM Frequency Necessary test points are provided to study the PWM Controller PWM output is terminated in connector for MOSFET power circuit patching **MOSFET Power circuit:** 4 number of IRF250 Power MOSFET with proper heat sink is provided for power circuit One number of High Frequency transformer and output filter is provided One number of Fixed Load resistor is provided PWM ISOLATOR IC and DRIVER ICs are provided for MOSFET power circuits PWM amplifications Necessary test points & PWM input connector are provided Current sensing resistors are provided in varies place for current wave form measurements **Specifications** **Power circuit Inputs 10**-20VDC **Output** 5VDC @ 1AMP **Power supply** One number of 0-30v@2A Variable dc power supply with ammeter & Voltmeter is provided for power circuit inputs

5	**Inverter Circuits:** 2 number of TYN612 SCR with heat-sink is provided for Power circuit Two number of Power diode is provided for Power circuit One number of IC based Firing circuits with frequency adjustments One number of potentiometer is provided for firing pulse frequency adjustments 2 Numbers of Pulse outputs are terminated in the PCB for external Patching. 24v,1Amp DC is provided for power circuit inputs One number of power resistor is provided as fixed R Load with terminations for External patching One number of Capacitor is provided commutation circuits One number of Parallel inverter transformer (24V, 1A) capacity is provided All necessary test points are provided for external patching All are mounted on a nice cabinet with sticker front panel with mimic diagram 230VAC input with power ON/OFF Switch Power circuit Input is 24V DC & Output 24VAC @1A