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Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada

Chebrolu(V&M), Guntur(Dt), A.P-522212

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| **BLOCK :** | **F** |
| **FLOOR :** | **FIRST** |
| **ROOM NO:** | **103** |
| **ROOM SIZE (in Sq. mtrs):** | **66** |
| **LAB NAME:** | **ELECTRICL MEASUREMENTS LAB** |
| **FANS :** | **4** |
| **TUBE LIGHTS :** | **4** |
| **CHAIRS :** | **2** |
| **STAFF TABLES :** | **1** |
| **EXPERIMENT TABLES :** | **10+2LONG** |
| **CLOSED IRON RACKS :** | **1** |
| **WOODEN CLOSED RACKS :** | **0** |
| **Others:** |  |

**LAB SPECIFICATIONS**

|  |  |  |  |
| --- | --- | --- | --- |
| **SI.No.** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **No. AVAILABLE** |
| 1 | **Calibration and Testing of single phase energy Meter.** | ENERGY METER | 1 |
| (0-300)V, (0-10)A | 1,1 |
| RESISTIVE LOAD 10A | EXISTANCE |
| 2 | **Calibration of dynamometer wattmeter using phantom loading UPF** | 1PH VARIAC(0-270) | 2 |
| (0-150)V,(0-300)V | 1,1 |
| (0-10)A | 1 |
| WATTMETER 150V,5A(UPF) | 1 |
| RESISTIVE LOAD 10A | EXISTANCE |
| 3 | **Crompton D.C. Potentiometer – Calibration of PMMC ammeter and PMMC voltmeter.** | KIT | AVAILABLE |
| RATIO BOX | 1 |
| ELECTRONIC STD BOX | 1 |
| 2V DC SUPPLY BOX | 1 |
| BRIDGE OSCILLATOR | 1 |
| GALVANOMETER BOX | 1 |
| RPS | 1 |
| 4 | **Kelvin’s double Bridge – Measurement of resistance – Determination of Tolerance** | KIT | AVAILABLE |
| UNKNOWN RESISTANCE COILS | 2 |
| 5 | **Measurement of 3 phase reactive power with single–phase wattmeter for balanced loading.** | 3PH VARIAC(0-470) | 1 |
| (0-600)V,(0-10)A | 1,1 |
| WATTMETER(0-600/10A)UPF | 2 |
| 3PH IND LOAD | 1 |
| 6 | **Calibration of LPF wattmeter – by direct loading.** | 1PH VARIAC(0-270) | 1 |
| (0-150)V,(0-300)V | 1,1 |
| (0-10)A | 1 |
| WATTMETER(300V/10A) | 1 |
| 1 PH INDUCTIVE LOAD | EXISTANCE |
| 7 | **Inductance Measurement using Anderson bridge** | KIT | AVAILABLE |
| HEAD PHONES |  |
| UNKNOWN INDUCTANCE BOX | 1 |
| 8 | **Dielectric oil testing using H.T. testing Kit** | KIT | AVAILABLE |
| 9 | **Measurement of 3 phase power with single wattmeter and using two C.Ts** |  |  |
|  |
| WATTMETER(600V/10A) | 1 |
|  |
| (0-600)V,(0-10)A | 1,1 |
| 3PH VARIAC(0-470) | 1 |
| CT(5/5A) | 2 |
| 3 PH INDUCTIVE LOAD | EXISTANCE |
| 10 | **Measurement of Power by 3 Voltmeter and 3 Ammeter method** | (0-150)V,(0-300)V |  |
| 1,2 |
|  |
|  |
| (0-10)A,(0-2)A,(0-5)A | 1,1,1 |
| CHOKE COIL 40W | 1 |
| 1PH INDUCTIVE LOAD | 1 |
|  | EXISTANCE |
| 1PH VARIAC |
|  |
|  |  |  |  |
|  |  |  |  |

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| **S.NO** | **NAME OF THE EQUIPMENT** | **RATING** | **QTY** |
| 1 | SINGLE PHASE ENERGY METER |  | 1 |
| 2 | PHASE SHIFTING TRANSFORMER |  | 1 |
| 3 | KELVINS DOUBLE BRIDGE |  | 1 |
| 4 | SCHERING BRIDGE |  | 1 |
| 5 | ANDERSON BRIDGE |  | 1 |
| 6 | DC CROMPTON POTENTIO METER |  | 1 |
| 7 | LVDT AND CAPACITANCE PICKUP |  | 1 |
| 8 | 1-PHASE VARIAC | 0-230 V | 3 |
| 9 | HEAD PHONES |  | 1 |
| 10 | DIELECTRIC OIL TEST |  | 1 |
| 11 | 3 PHASE INDUCTIVE LOAD |  | 1 |
| 12 | 3-PHASE VARIAC | 0-470V | 2 |
| 13 | WATTMETERS UPF | 0-150/300/600V | 5 |
| 14 | WATTMETERS LPF | 300/600V, 0-75/150/300V | 2+3 |
| 15 | VOLTMETERS | 0-150/300V,0-300/600V | 3+3 |
| 16 | AMMETERS | 0-5/10A, 0-10/20A,0-1/2A,0-2.5/2 A,0-10A | 2+2+2+1+1 |
| 17 | C T’S |  | 4 |
| 18 | CHOKE COIL |  | 2 |
| 19 | RHEOSTATS | 350 OHMS /2A,500 OHMS/2A | 1+1 |
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