|  |  |  |  |
| --- | --- | --- | --- |
| **S NO** | **QUESTION** | **KNOWLEDGE**  **LEVEL** | **CO** |
| **UNIT I** | | | |
| **1** | Discuss the PMMC instrument with neat sketch? | K2 | CO1 |
| **2** | Explain the principle of Electrodynamometer instrument? | K2 | CO1 |
| **3** | Explain with neat sketch attraction type MI instruments? | K3 | CO1 |
| **4** | Explain the electrostatic instruments with force and torque equation | K3 | CO1 |
| **UNIT 2** | | | |
| 1 | Explain the Kelvin’s double bridge and derive the balance equation? | K3 | CO2 |
| 2 | Explain the Anderson bridge with balance equation? | K2 | CO2 |
| 3 | Describe the balance equation of Wheat stone bridge? | K2 | CO2 |
| 4 | Explain briefly Maxwell’s bridge with balance equation? | K2 | CO2 |
| 5 | Describe the balance equation of Hay’s bridge? | K2 | CO2 |
| **UNIT 3** | | | |
| **1** | Explain the circuit diagram of d.c Crompton’s potentiometer with neat sketch | K3 | CO3 |
| **2** | Explain the working principle of Gall-Tinsley a.c potentiometer with neat sketch | K3 | CO3 |
| **3** | Explain the working principle of Drysdale - Tinsley A.C potentiometer with neat sketch | K3 | CO3 |
| **UNIT 4** | | | |
| **1** | Describe the constructional details of an Electrodynamometer type wattmeter? | K2 | CO4 |
| **2** | Describe the methods for measurement of power in in single phase circuits? | K3 | CO4 |
| **3** | Explain the measurement of active and reactive powers in balanced and unbalanced systems | K3 | CO4 |
| UNIT 5 | | | |
| **1** | Illustrate the expression for deflecting torque in single phase induction type meters? | K2 | CO5 |
| **2** | The meter constant of a 230 V, 10A watt-hour meter is 1800 revolutions per kWh. The meter is tested at half load and rated voltage and unity power factor. The meter is found to make 80 revolutions in 138 s. Determine the meter error at half load? | K3 | CO5 |
| **3** | Explain the electrical resonance type frequency meter and Weston type synchroscope | K3 | CO5 |
| **UNIT 6** | | | |
| **1** | Explain briefly dual slope integrating type A/D converter? | K3 | **CO6** |
| **2** | Explain the working principle of digital frequency meter | K3 | **CO6** |
| **3** | Describe the working of digital multimeter and Tachometer | K2 | **CO6** |