| R | A | 2 | 1 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**COLLEGE OF ENGINEERING & TECHNOLOGY,**
**SRM INSTITUTE OF SCIENCE AND TECHNOLOGY**
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

# Cycle Test – I SET- C

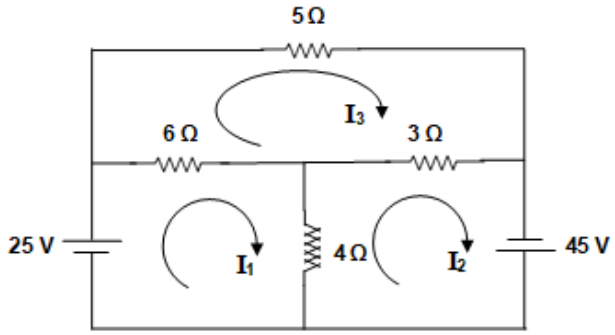
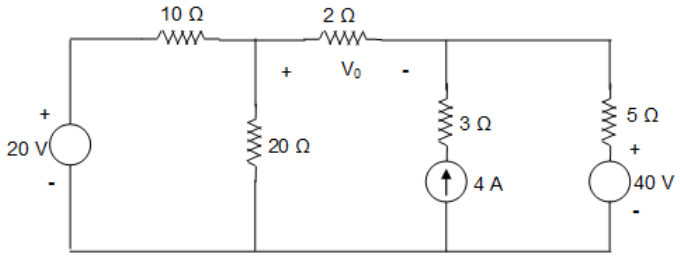
**Academic Year: 2021-2022 (EVEN SEM)**
**Program offered: B.Tech**
**Year / Sem : I/II**
**Course Code and Title: 18EES101J/ BASIC ELECTRICAL AND ELECTRONICS ENGINEERING**
**Maximum Marks: 25**
**Date and Time: 21/04/2022 and 12:30 pm to 01:20 pm**

**PART A (Answer all the questions)**
**3x4 MARKS=12 MARKS**

| Learning Assessment (CLA 1) | | | |
|---|---|---|---|
| **Levels** | **Level of Thinking** | **Weightage Required (%)** | **Weightage Provided(%)** |
| 1 | Remember<br>Understand | 40% | 40% |
| 2 | Apply<br>Analyze | 60% | 60% |

| Q. No. | Questions | Reference to CO | Reference to PO | Bloom's Taxonomy | Marks Allotted | Marks Scored |
|---|---|---|---|---|---|---|
| 1. | State Ohm's law and also list out its limitations. | CO1 | 1 | Understand | 4 | |
| 2. | A circuit consists of three resistors 3 Ω, 4 Ω and 6 Ω in parallel and a fourth resistor of 4 Ω in series. A battery of 12 V and an internal resistance of 6 Ω is connected across the circuit. Find the total current in the circuit and the terminal voltage across the battery. | CO1 | 1,2 | Apply | 4 | |
| 3. | Each phase of a three-phase alternator, generates a voltage of 3810.5 V and can carry a maximum current of 30 A. Find the line current, line voltage and total kVA capacity, if the alternator is connected in star. | CO1 | 1,2 | Understand | 4 | |

**PART B(Answer all the questions)** **1x13 MARKS=13 MARKS**

| Q. No. | Questions | Reference to CO | Reference to PO | Blooms Taxonomy | Marks Allotted | Marks Scored |
|---|---|---|---|---|---|---|
| 4a. | Using Mesh analysis, find all the mesh currents in the given circuit shown below.   | CO1 | 1,2 | Apply | 13 | |
| | **(OR)** | | | | | |
| 4b. | In the given circuit, find the voltage drop across the 2 ohms resistor by using super position theorem.   | CO1 | 1,2 | Apply | 13 | |

| Course Outcomes | Marks Allotted | Marks Scored |
|---|---|---|
| **CO1** | **25** | |
| **CO2** | - | - |
| **CO3** | - | - |
| **CO4** | - | - |
| **CO5** | - | - |
| **CO6** | - | - |
| **Total** | **25** | |

**Total Marks Scored:** **Signature of the Faculty**