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**AMERICAN INTERNATIONAL UNIVERSITY – BANGLADESH (AIUB)**

**Faculty of Engineering**

**Bachelor of Science in Electrical and Electronic Engineering**

**IEC lab performance test**

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| --- | --- | --- |
| **Spring 2021-22** | **Total Marks: 20** | **Time: 1.5 Hrs** |

**Group number:**

|  |  |
| --- | --- |
| **Name** | **ID** |
|
|  |  |

**Construct the following circuit and calculate the current through R3 resistor using superposition theorem. Fill up the following table and show necessary calculations. Take R3 = 10 Kohm, E1 = 54 V and E2 = 48 V. Here “R1” = (Group number + 1) Kohm, “R2” = (Group number + 2) Kohm.**

Chart

Description automatically generated

|  |  |  |
| --- | --- | --- |
| **Source** | **Calculated (this value should come from theoretical calculation)** | **Measured (this value should come from the simulation)** |
| **I3 (A)** | **I3(A)** |
| **V1** |  |  |
| **V2** |  |  |
| **V1 & V2** |  |  |

1. **Calculation of I3.**

**(\*\*You can type the calculation steps here or attach a screenshot of the calculation. Show the equivalent circuits as well while doing the calculations.)**

1. **Simulation Results:**

**(\*\* Attach 3 screenshots from your simulation showing how you measured the currents through R3. The values should be shown clearly in the screenshots and each screenshot must show the time and date of your device.)**