**Pre-lab Assignment EE2112 – Lab 1 Submission Sheet**

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**Laboratory Section:**

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**Date of submission:**

1. **In the procedure part, you will be introduced to the color code by which the nominal values of resistors are represented. Watch the following video:**

[**https://www.youtube.com/watch?v=0TX0Zt6ihKA**](https://www.youtube.com/watch?v=0TX0Zt6ihKA)**}**

1. **Provide the general color code chart for 4-band resistors. (1.5 pts)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Color** | **1st digit** | **2nd digit** | **Multiplier** | **Tolerance** |
| **Black** | **0** | **0** | **1** |  |
| **Brown** | **1** | **1** | **10** | **±1%** |
| **Red** | **2** | **2** | **100** | **±2%** |
| **Orange** | **3** | **3** | **1000** |  |
| **Yellow** | **4** | **4** | **10000** |  |
| **Green** | **5** | **5** | **100000** |  |
| **Blue** | **6** | **6** | **1000000** |  |
| **Violet** | **7** | **7** |  |  |
| **Gray** | **8** | **8** |  |  |
| **White** | **9** | **9** |  |  |
| **Gold** |  |  | **.1** | **±5%** |
| **Silver** |  |  | **.01** | **±10%** |

1. **For the resistors listed below, decode the color bands and calculate the corresponding resistance value, to each value, write the corresponding color code (4 bands) with applying tolerance 10%. (4 pts)**
2. **1.5 k Ώ: …………………….. Brown Green Red Silver**
3. **2.2 k Ώ: …………………….. Red Red Red Silver**
4. **3.3 k Ώ: …………………….. Green Green Red Silver**
5. **4.7 k Ώ: …………………….. Yellow violet Red Silver**
6. **The Fluke DMM is shown in Figs. 8-10 with three different measurement configurations. For each setup determine what electrical quantity the meter is set to measure. Justify your answer. (1.5 pts)**
7. **Figure 8 is set to measure: ……………………..**

**Resistance in kilohms. the display on the DMM shows KΩ.**

1. **Figure 9 is set to measure: ……………………..**

**Voltage DC, the display on the DMM shows VDC**

1. **Figure 10 is set to measure: ……………………..**

**Amps DC, the display on the DMM shows ADC**

1. **Using Fig. 11, Fig. 12 as an Example. Draw the DMM in SERIES with a Resistor and Voltage Source (Figure 1) on the Data Sheet. You can draw by hand or any software (i.e. Multisim ...) and insert your picture here. (3 pts)**

**A close up of a tiled wall

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