Assignment 1

Q1. Describe why RISC architecture is used for Micro controller application?

Q2. Describe the working of relay?

Q3. Using relay to make a circuit to Turn on and Off a Bulb using a switch. Relay coil voltage is 5V.

Q4. Read the following datasheet of an led and find out the value of resistor to be used in series with the LED when the voltage source is 5VDC.

Link: <https://www.mouser.in/datasheet/2/678/Broadcom-01-02-2020-HLMP-AG70-Z20DD_HLMP-AL71-13KD-1696576.pdf>

Q5. Realize a bridge rectifier circuit and explain its working.

Q6. Realize a circuit which uses BJT as a switch and use it to control an LED using a switch.

Q7. What is a Voltage divider circuit?Explain using an example.

Q8. What do you mean by high impedance pin of a controller?

Q9. If doubling the voltage across a resistor doubles the current through the resistor then

A. the resistor value decreased

B. the resistor value did not change

C. the resistor value increased

D. it is impossible to determine the change in the resistor value

Q10.

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| What is the current flow through R1, R2, and R3?  IMG_256 |
| |  |  | | --- | --- | | **[A.](https://www.indiabix.com/electronics/series-circuits/javascript: void 0;)** | 1A, 1A, 1A | | **[B.](https://www.indiabix.com/electronics/series-circuits/javascript: void 0;)** | 1A, 2A, 3A | | **[C.](https://www.indiabix.com/electronics/series-circuits/javascript: void 0;)** | 3A, 3A, 3A | | **[D.](https://www.indiabix.com/electronics/series-circuits/javascript: void 0;)** | 3A, 2A, 1A | |