Assignment 0

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-09-16 23:19 IST

1. In the 2018, 100 of the following is correct: 1 point
   a. 1111 1111
   b. 1010 1010
   c. 0110 0110
   d. 1001 1001

2. What would be the output of the following C program? 1 point

   ```c
   #include <stdio.h>
   
   int main() {
     float x = 5.0;
     float y = 3.0;
     float z = x / y;
     printf("%.1f\n", z);
     return 0;
   }
   ```

3. A 0.1 Ohm resistor has a resistance of 0.1 ohm. Which of these resistors has a resistance of 0.1 ohm? 1 point
   a. 1000 Ohm
   b. 100 Ohm
   c. 10 Ohm
   d. 1 Ohm

4. To represent a decimal number -1448563 as an 8-bit binary number, the minimum number of bits required is: 1 point
   a. 10
   b. 11
   c. 12
   d. 17

5. If a capacitor of 1.5uF, with initial voltage of 10V, is charged with a constant current of 1A, the voltage across the capacitor after 1 microsecond would be: 1 point
   a. 10V
   b. 7V
   c. 6V
   d. 5V

6. A 1000 ohm resistor is: 1 point
   a. AC
   b. DC
   c. BNC
   d. 10K Ohm

7. A sine wave of 100 Hz is fed to a bridge rectifier. The frequency of the output from the bridge rectifier is: 1 point
   a. 100 Hz
   b. 50 Hz
   c. 200 Hz
   d. None of the above

8. A microprocessor is: 1 point
   a. A CPU on a single chip
   b. An ultrasonic sensor
   c. A small processor
   d. A very small processor

9. If another variable is a sine wave signal, it is fed to the following circuit, the output of the circuit has: 1 point

   ![Circuit Diagram](image)

   a. Same frequency as the input variable but 50% duty cycle
   b. Half the frequency and 50% duty cycle
   c. Twice the frequency and same duty cycle
   d. Half the frequency but same duty cycle

10. The output of the amplifier is: 1 point

    ![Amplifier Diagram](image)

    a. 1V
    b. 2V
    c. 10V
    d. None of the above