Week 1 Assignment 1

The due date for submitting this assignment has passed.

Due on 2021-08-18, 23:59 IST.

As per our records you have not submitted this assignment.

1) What are the limitations of an SoC's internal RC oscillator *1 point*

- Accuracy and repeatability
- Temperature
- Change in temperature causes change on RC values
- Frequency changing with temperature
- All the above
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All the above

2) The technology used in national highway for collecting toll charges is *1 point*

- Wi-Fi
- BLE
- ZigBee
- EPC
- ISO 14443
- ISO 15693

No, the answer is incorrect.
Score: 0
Accepted Answers:
EPC

3) If the following are the parameters of ADC, Vref = 5V, and a 10-bit A/D output code is 0x1AB, what is the ADC input voltage? *1 point*

- 2.084 V
- 2.085 V
- 2.086 V
- 2.087 V

No, the answer is incorrect.
Score: 0
Accepted Answers:
2.086 V
OR
2.087 V

4) What is the maximum step size that can be obtained using a 14-bit ADC with Vref of 3.3V? *1 point*

- 0.3 mV
- 0.4 mV
- 0.2 mV
- 0.1 mV

No, the answer is incorrect.
Score: 0
Accepted Answers:
0.2 mV

5) For a Vref of 3.3V and 10-bit ADC, the controller is reading 0.0502V for the 15th step, and 0.0666 for the 20th step. Choose the suitable ADC error *0 points*

- Gain error
- Offset error
- INL
- DNL

No, the answer is incorrect.
Score: 0
Accepted Answers:
Offset error

6) Which is a suitable micro-controller for simple sense (the sensor value) and send (upload sensor data to cloud) application *1 point*

- Arduino
- NodeMCU
- PIC micro-controller
- MSP430

No, the answer is incorrect.
Score: 0
Accepted Answers:
NodeMCU

7) PUF is not used for authentication of the node or a device *1 point*

- True
- False

No, the answer is incorrect.
Score: 0
Accepted Answers:
False

8) Based on delay difference between 2 or more identical devices, output bits are generated from *1 point*

- Butterfly PUF
- RO PUF
- SRAM PUF
- BusKeeper PUF

No, the answer is incorrect.
Score: 0
Accepted Answers:
RO PUF

9) Which PUF cannot be implemented on commercially available SoC based IoT devices *1 point*

- RO PUF
- SRAM PUF
- ADC PUF
- None the above
- All the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
RO PUF