Question 1
Not yet answered
Marked out of 10.00

Which of the following are common functions of a typical IoT device

Select one or more:

- [x] a. Controlling physical world devices
- [x] b. Sensing the environment
- [x] c. Working with minimum power consumption
- [x] d. Communicate with other devices
- [ ] e. Providing rich, interactive user interfaces

Question 2
Not yet answered
Marked out of 10.00

Which of the following statements are true about the predefined "loop()" function in an Arduino program?

Select one or more:

- [x] a. It is the main function where typically the program logic to be included.
- [ ] b. It executes every time where a For-loop is used in the program logic.
- [x] c. It is executed after the setup() function.
- [ ] d. It is executed whenever the program is waiting for an external input.
- [x] e. It is executed repeatedly as far as the power is applied to the circuit.

Question 3
Not yet answered
Marked out of 10.00

Which of the following programming languages are generally used to develop IoT applications?

Select one or more:

- [ ] a. JAVA SCRIPT
- [x] b. LUA
- [x] c. C++
- [ ] d. PHP
- [x] e. Micro Python

Question 4

Not yet answered

Marked out of 10.00

Assume that you are designing a traffic control system for a railway level-crossing. The system is expected to operate autonomously by detecting an incoming train and warning the road-users through a traffic signal light. Which is of teh following methods can be considered as a "fail safe" mechanism?

Select one or more:

- [ ] a. Having a red colour light that stays steady when there is an approaching train or flashes otherwise
- [x] b. Having green color light that lights up only when there is no approaching train.
- [ ] c. Having a red colour light which lights up when there is an approaching train.
- [ ] d. Having a red and green colour lights which lights up depending on whether there is an approaching train or not
- [ ] e. Having a red colour light and an alarm sound to indicate an approachign train

Question 5

Not yet answered

Marked out of 10.00

The term "Arduino" in the context of IoT domain refers to?

Select one or more:

- [ ] a. A microcontroller that can be used build IoT devices
- [ ] b. A programming language used for IoT development
- [ ] c. A circuit board made using ATMEL brand of processors
- [ ] d. A software framework that can be used to build IoT devices
- [x] e. A complete integrated development environment that is easy to learn and that can be used to develop IoT prototypes

Question 6

Not yet answered

Marked out of 10.00

Which of the following are micro-controllers used commonly for IoT applications?

Select one or more:

- [ ] a. NodeMCU
- [x] b. ATEML 328
- [ ] c. EXP8266
- [ ] d. AMD althon
- [ ] e. Intel Pentium

Question 7

Not yet answered

Marked out of 10.00

Which of the following are the general objectives of an IoT system design

Select one or more:

- [ ] a. High performance computing
- [x] b. Realtime response
- [x] c. Smaller circuit board footprint
- [ ] d. Operation with battery power
- [ ] e. Use of AI/ML techniques and technologies

Question 8

Not yet answered

Marked out of 10.00

Which of the following statement(s) is correct about the pre-defined "setup()" function of an Arduino script?

Select one or more:

- [ ] a. It executes each time an error is detected in the software or hardware
- [x] b. It executes each time the system is warm-booted.
- [ ] c. It is executed when the user selects the "configure option" of teh system
- [x] d. It executes only once as part of the startup routine.
- [x] e. It executes each time the circuit is hardware resettled

Question 9

Not yet answered

Marked out of 10.00

Which of the following function are carried by a "watch-dog timer" module in a microcontroller?

Select one or more:

- [ ] a. Monitoring changes in its input and output pins
- [x] b. Recover the execution from a condition that could trap the software in an infinite loop.
- [x] c. Function as a supervisor circuit to recover from certain type of hardware faults.
- [ ] d. Records the time of an external event.
- [ ] e. Counts the number of external events that occur in a given time interval.

Question 10

Not yet answered

Marked out of 10.00

Which of the following statements describes the functions and features of a bit-addressable IO port in a microcontroller?

Select one or more:

- [x] a. It always allow the address of the port to be configured through software (i.e. bits in a control register)
- [x] b. It allows both digital and analog inputs and outputs
- [x] c. It has a unique IO address for each bit in the processor's IO address-bus space.
- [ ] d. It always uses memory mapped IO addressing.
- [x] e. It allows individual bits of the IO port to be configured separately.

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