NPTEL Online Certification Courses

Indian Institute of Technology Kharagpur

Introduction to Internet of Things

Assignment-Week 1

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 15 **Total marks: 15 X 1= 15**

QUESTION 1:

IoT stands for _____.

a. Internet of Tasks
b. Internet of Tuples
c. Internet of Things
d. None of these

Correct Answer: c. Internet of Things

Detailed Solution: The full form of IoT is "Internet of Things"

See lecture 1 (Introduction to IoT – Part - I) @ 1:30

QUESTION 2:

Which of the following technologies have unified and has resulted in the evolution of IoT?

a. High-power embedded systems
b. Super Computing
c. Engine Technology
d. None of these

Correct Answer: d. None of these

Detailed Solution: Unification of technologies which has resulted in the advancement of IoT are –

a. Low-power embedded systems
b. Cloud Computing
c. Big Data
d. Machine Learning
e. Networking

See lecture 1 (Introduction to IoT – Part - I) @ 5:54

QUESTION 3:

Which of the following are the enables of IoT?

a. RFID
b. Nanotechnology
c. Sensors
d. All of these

Correct Answer: d. All of these

Detailed Solution: The enables of IoT are –

a. RFID
b. Nanotechnology
c. Sensors
d. Smart Networks

See lecture 2 (Introduction to IoT – Part - I) @ 12:50

QUESTION 4:

Which of the following is NOT a function of an IoT LAN?

a. Long range communication, global

b. World wide connections

c. Both (a) and (b)

d. Neither (a) Nor (b)

Correct Answer: c. Both (a) and (b)

Detailed Solution: The functionalities of an IoT Gateway are –

a. Local, short-range communication
b. Spreads across buildings or organization

See lecture 2 (Introduction to IoT – Part - II) @ 3:09

QUESTION 5:

State whether the following statement is True or False.

Statement: The integration of existing devices, smart devices, and constrained nodes in a singular framework is one of the reasons for the address crunch in IoT.

a. True

b. False

Correct Answer: a. True

Detailed Solution: The integration of existing devices, smart devices, and constrained nodes in a singular framework is one of the reasons for the address crunch in IoT.

See lecture 2 (Introduction to IoT – Part - II) @ 02:35

QUESTION 6:

State True or False.

Statement: "In Multi-homing, a node/network is connected to a single network for improved reliability.

a. True
b. False

Correct Answer: b. False

Detailed Solution: In multi-homing, a node/network is connected to multiple networks for improved reliability.

See lecture 2 (Introduction to IoT – Part - II) @ 15:22

QUESTION 7:

Which of the following is/are the approach/approaches for multi-homing?

a. Proxy-based approach
b. Gateway-based approach
c. Both (a) and (b)
d. None of these

Correct Answer: c. Both (a) and (b)

Detailed Solution: The following are the approaches for multi-homing –

1. Proxy-based approach
2. Gateway-based approach

See lecture 2 (Introduction to IoT – Part - II) @ 16:10

QUESTION 8:

IPv6 uses _____ notation for its representation.

a. Hexadecimal
b. Binary
c. Decimal
d. None of these

Correct Answer: a. Hexadecimal

Detailed Solution: IPv6 uses Hexadecimal notation for its representation.

See lecture 2 (Introduction to IoT – Part - II) @ 17:00

QUESTION 9:

State True or False.

The parameters sensed by a sensor may be sent to the cloud for further processing.

a. False
b. True

Correct Answer: b. True

Detailed Solution: The parameters sensed by a sensor may be sent to the cloud for further processing.

See lecture 3 (Sensing) @ 01:15

QUESTION 10:

The IPv6 notation uses _____ number of bits to represent an address.

a. 64
b. 128
c. Both (a) and (b)
d. Neither (a) nor (b)

Correct Answer: b. 128

Detailed Solution: The IPv6 notation uses 128 bits to represent an address.

See lecture 2 (Introduction to IoT – Part - II) @ 16:33

QUESTION 11:

A sensor is -

a. Only sensitive to the measured property
b. Insensitive to any other property that what the sensor is made to sense
c. Both (a) and (b)
d. None of these

Correct Answer: c. Both (a) and (b)

Detailed Solution:

a. Only sensitive to the measured property
b. Insensitive to any other property that what the sensor is made to sense

See lecture 3 (Sensing) @ 12:30

QUESTION 12:

We classify sensors based on -

a. Output
b. Data type
c. Both (a) and (b)
d. None of these

Correct Answer: d. None of these

Detailed Solution:

We classify sensors based on -

a. Output
b. Data type

See lecture 3 (Sensing) @ 13:30

QUESTION 13:

Which of the following is correct statement

a. Controlling AC loads using low DC signals
b. Relays are electromechanical
c. Relays are actuators
d. All of these

Correct Answer: d. All of these

Detailed Solution: All the statements given are correct.

QUESTION 14:

Based on the output, sensors are classified as _____.

a. Analog
b. Digital
c. Both (a) and (b)
d. Neither (a) nor (b)

Correct Answer: c. Both (a) and (b)

Detailed Solution: Based on the output, sensors are classified as Digital and Analog.

See lecture 3 (Sensing) @ 13:05

QUESTION 15:

Soft actuators are -

a. Polymer-based
b. Mechanical
c. Electromechanical
d. None of these

Correct Answer: a. Polymer-based

Detailed Solution: Soft actuators are polymer based.

Lecture 4, @ 15:00

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