

Course outline

How does an NPTEL online course work?

WEEK 1 Introduction to IoT

WEEK 2 Addressing the Power challenge

WEEK 3 Addressing the Power challenge continued and System Design for low power

Week 4 Sensors and actuators

WEEK 5 Power management algorithms

WEEK 6 IoT protocols – MQTT, COAP, and Websockets with associated applications

 Introduction to protocols

 MQTT – 01

 MQTT – 02

 COAP – 01

 COAP – 02

 Websockets

 Weekly Feedback Form

 Quiz: Week 6 Assessment 6

 Week 6 - Lecture notes

 Week 6 Assignment 6 Answers

WEEK 7 Low power wireless technologies – BLE, IEEE 802.15.4e, Wi-Fi

WEEK 8 Low Power Wide area technologies – NBIoT, LTE-M, LoRa and BLE

Video Download

Week 6 Assessment 6

The due date for submitting this assignment has passed.

Due on 2021-09-08, 23:59 IST.

As per our records you have not submitted this assignment.

 1) After a network connection is established, if a client issues a CONNECT packet, the server considers the second CONNECT packet sent from the client as: **1 point**

- Establish the connection
 Acceptance of connection request
 Protocol error
 None of the above.

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Protocol error

 2) When server publishes the Will message as a retained message, which of the following statements is TRUE. **1 point**

- Only when Will Flag is set to '1' and Will Retain is set to '1'
 Only when Will Flag is set to '1' and Will Retain is set to '0'
 Only when Will Flag is set to '0' or '1' and Will Retain is set to '1'
 Only when Will Flag is set to '1' and Will Retain is set to '0' or '1'

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Only when Will Flag is set to '1' and Will Retain is set to '1'

 3) During executing a command in window blind application, the motor gets stuck at an undesirable position. The reason could be **2 points**

- Outdoor light sensor is malfunctioning
 Indoor light sensor is malfunctioning
 The link between Broker and actuator node is broken
 None of the above.

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Outdoor light sensor is malfunctioning
 Indoor light sensor is malfunctioning
 The link between Broker and actuator node is broken

 4) To improve the reliability of the link between the Broker and Subscriber/Publisher, one may choose QoS-2 option. However, the cost of this option is: **1 point**

- Less processing of QoS-2 packets
 More processing of QoS-2 packets
 Duplicate elimination of packets arriving at the receiver
 All the above

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 More processing of QoS-2 packets
 Duplicate elimination of packets arriving at the receiver

 5) The following are True for Websockets **2 points**

- Different from HTTP long polling
 Moves away from Request/Response
 Does not use HTTP for upgrade
 Does not offers real-time

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Different from HTTP long polling
 Moves away from Request/Response

 6) Websockets carries less data compared to HTTP because it **2 points**

- Supports binary frame format
 Divides messages into small frames
 Requires a significant amount of metadata
 Less secure protocol compared to HTTP

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Supports binary frame format
 Divides messages into small frames

 7) Websockets is best suited for **1 point**

- Online Gaming
 Periodic but not real-time monitoring
 Real-time monitoring
 All the above
 None of the above

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Online Gaming
 Real-time monitoring