

Unit 9 - Week 7

Course outline

How does an NPTEL online course work?

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Week 7

Lecture 31 : Key Enablers of Industrial IoT: Connectivity – Part 4

Lecture 32 : Key Enablers of Industrial IoT: Connectivity – Part 5

Lecture 33 : Key Enablers of Industrial IoT: Processing – Part 1

Lecture 34 : Key Enablers of Industrial IoT: Processing – Part 2

Lecture 35 : Key Enablers of Industrial IoT: Process Control

Week 7 - Lecture Material

Quiz : Assignment 7

Week 7 Feedback Form

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Detailed Assignment Solution

Live Interactive Session

Assignment 7

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

Due on 2020-03-18, 23:59 IST.

- 1) In Smart warehousing systems, sensors and actuators are connected through:
- Web server
 - Administrator
 - Smart gateway
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 2) Which of the following is not part of the IoT layer in IIoT-based industrial manufacturing?
- Communication infrastructure
 - Manufacturing resources
 - Manufacturing capabilities
 - User interface
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: d.
- 3) Which one of the following is not related to complex event processing (CEP)?
- Cannot handle multiple data streams
 - Extraction of causal and temporal patterns using predefined rules
 - Correlation among multiple streams for generating meaningful output
 - Near real-time processing
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: a.
- 4) Which of the following is not true in IIoT processing?
- Different phases – produces, consumer, modelling
 - Different topology – sensor, room, floor
 - Workload of sensor topology is reduced compared to room topology
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 5) Which one of the following is true for IIoT processing and analytics?
- The business process analytics is of three types
 - Prescriptive analytics deals with “what already happened and currently happening”
 - Predictive analytics deals with “what & why to perform some action”
 - Descriptive analytics deals with “Data mining/Web mining/ Predictions”
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: a.
- 6) Which of the following is not true for current CEP systems?
- The message queues are not scalable and incurs higher latency
 - Message queues are not scalable
 - Existing servers are fully utilized by deploying more servers
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 7) Which of the following are true for self-organized multi-agent system in a smart factory?
- It provides increased flexibility
 - The concept of self-organizing is achieved by intelligent negotiation between the agents
 - Cloud-based big data processing framework assists the self-organization & supervisory control
 - All of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: d.
- 8) Which one of the following is not true for Line Information System Architecture (LISA)?
- It provides an event-driven information system
 - It is a loosely-coupled system with prototype oriented information model
 - It does not provide interoperability between the standard communication interfaces
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 9) Which of the following is not a component of PLC?
- Sensor
 - Communication module
 - Memory unit
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: a.
- 10) What does EC-GSM-IoT stand for?
- Extended Connectivity GSM IoT
 - Extended Coverage GSM IoT
 - Enhanced Coverage GSM IoT
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: b.
- 11) What is the data rate for CAT-NB1?
- 200 Kbps
 - 20 Kbps
 - 250 Kbps
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 12) Which of the following is the average range supported by Sigfox?
- 30-50 km
 - 3-10 km
 - Both (a) and (b)
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 13) Which of the following is size of NodeMCU memory?
- 256 Kb
 - 64 Kb
 - 128 Kb
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.
- 14) Which of the following statements is true for open loop control?
- The control action from the controller is dependent on the process output.
 - The control action from the controller is independent of the process output.
 - The control action from the controller is independent of the process input.
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: b.
- 15) DCS is used in -
- Batch-oriented manufacturing processes
 - Highly distributed plants having huge number of control loops
 - Both a and b
 - None of the above
- a.
 b.
 c.
 d.
- No, the answer is incorrect.
Score: 0
Accepted Answers: c.