

## WEEK 5 2020A

### Assignment 5

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

Due on 2020-03-04, 23:59 IST.

- 1) How is safety defined in industrial perspective?  
a. Condition of the operating system  
b. No unexpected risk or damage  
c. Damage to the operating system is allowed  
d. Both (a) and (b). 1 point
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
d.
- 2) How does the gateway devices act in the gateway-mediated edge architecture?  
a. Management point  
b. Data transfer  
c. Local connectivity  
d. All of the above 1 point
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
d.
- 3) In which of the given below field/s layered databus pattern is applicable?  
a. Global monitoring  
b. Control  
c. Analytics  
d. Both (a) and (b) 0 points
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
d.
- 4) How is a task defined in IIoT?  
a. Not measured by time  
b. Not bounded by time  
c. Foundation block of work  
d. None of the above 1 point
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
c.
- 5) How does an implementation map works?  
a. Participates in the task  
b. Execution of the task  
c. Functional component of task  
d. None of the above 1 point
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
b.

|   |                |
|---|----------------|
| <p>6) Which functions are performed in the operation domain of functional viewpoint?</p> <p>a. Provision, monitor, optimize, configure, and remotely manage the resources<br/>     b. Provision, register, monitor, and track the resources<br/>     c. Configure, track, register, deploy, remotely manage the resources, prognostics, monitoring, and optimization<br/>     d. Track, configure, register, monitoring, optimization and manage the resources</p> <p><input type="radio"/> a.<br/> <input type="radio"/> b.<br/> <input type="radio"/> c.<br/> <input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>     Score: 0<br/>     Accepted Answers:<br/>     c.</p> | <i>1 point</i> |
| <p>7) How do prognostics in operations domain help in IIoT systems from the functional viewpoint?</p> <p>a. Acts as prescriptive analytics engine<br/>     b. Acts as predictive analytics engine<br/>     c. Acts as both predictive and prescriptive analytics engine<br/>     d. None of the above</p> <p><input type="radio"/> a.<br/> <input type="radio"/> b.<br/> <input type="radio"/> c.<br/> <input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>     Score: 0<br/>     Accepted Answers:<br/>     b.</p>  | <i>1 point</i> |
| <p>8) Business function includes</p> <p>a. Supports business processes<br/>     b. Do not support any business process<br/>     c. Procedural activities<br/>     d. Both (a) and (c)</p> <p><input type="radio"/> a.<br/> <input type="radio"/> b.<br/> <input type="radio"/> c.<br/> <input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>     Score: 0<br/>     Accepted Answers:<br/>     d.</p>  | <i>1 point</i> |
| <p>9) How is effect defined in an activity?</p> <p>a. State of the CPS system<br/>     b. Structure of the system<br/>     c. State of the IIoT system after completion of an activity<br/>     d. Structure of the CPS system</p> <p><input type="radio"/> a.<br/> <input type="radio"/> b.<br/> <input type="radio"/> c.<br/> <input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>     Score: 0<br/>     Accepted Answers:<br/>     c.</p>   | <i>1 point</i> |

|     |  |         |
|-----|--|---------|
| 10) | <p>Service-oriented business models offer utilization, aggregation and analysis of -</p> <ul style="list-style-type: none"> <li>a. Data</li> <li>b. Products</li> <li>c. Services</li> <li>d. Software</li> </ul> <p><input type="radio"/> a.<br/><input type="radio"/> b.<br/><input type="radio"/> c.<br/><input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>Score: 0</p> <p>Accepted Answers:<br/>a.</p>  | 1 point |
| 11) | <p>Companies operating a _____ employ _____ to gather data and information.</p> <ul style="list-style-type: none"> <li>a. Process-oriented BMs, Cloud-based BMs</li> <li>b. Cloud-based BMs, Service-Oriented BMs</li> <li>c. Service-oriented BMs, Cloud-based BMs</li> <li>d. Cloud-based BMs, Process-oriented BMs</li> </ul> <p><input type="radio"/> a.<br/><input type="radio"/> b.<br/><input type="radio"/> c.<br/><input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>Score: 0</p> <p>Accepted Answers:<br/>c.</p> | 1 point |
| 12) | <p>Value configuration for process-oriented business models includes -</p> <ul style="list-style-type: none"> <li>a. Mastering complex production processes</li> <li>b. Maintenance and development of platforms</li> <li>c. Development of cloud services</li> <li>d. None of the above</li> </ul> <p><input type="radio"/> a.<br/><input type="radio"/> b.<br/><input type="radio"/> c.<br/><input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>Score: 0</p> <p>Accepted Answers:<br/>a.</p>                              | 1 point |
| 13) | <p>Patents and copyrights are examples of which of the following type of resources -</p> <ul style="list-style-type: none"> <li>a. Physical</li> <li>b. Intellectual</li> <li>c. Human</li> <li>d. Financial</li> </ul> <p><input type="radio"/> a.<br/><input type="radio"/> b.<br/><input type="radio"/> c.<br/><input type="radio"/> d.</p> <p>No, the answer is incorrect.<br/>Score: 0</p> <p>Accepted Answers:<br/>b.</p>  | 1 point |

- 14) Partnerships and alliances - 1 point
- a. Reduce risks
  - b. Increase risks
  - c. Have no effect on risks
  - d. None of the above
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
a.
- 15) Which of the following is not an example of dynamic pricing? 1 point
- a. Negotiation
  - b. Real time market
  - c. Auction
  - d. List price
- a.  
 b.  
 c.  
 d.
- No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
d.

WEEK 5 2021A

## Week 5 Assignment 5

Assignment not submitted

Due date: 2021-02-24, 23:59 IST.

1) Which of the following is provided by Amazon ? 1 point

- (a) Smart Warehousing
- (b) Assembly line
- (c) AR for condition monitoring
- (d) All of the above

(a)

2) 1 point

Which of the following is not a part of the improved mining solutions provided by Komatsu?

- (a) Intelligent lighting in underground mines
- (b) Proximity detection
- (c) Predictive analysis of machine performance
- (d) Self-driving trucks.

(a)

(b)

(c)

3) Which of the following best describes KUKA? 1 point

- (a) Autonomous trucks for precision agriculture
- (b) Connected robotics system for smart manufacturing
- (c) Warehouse security
- (d) Aerial monitoring of warehouse

(a)

(b)

4) Which of the following are building blocks of a business model? 1 point

- (a) Value proposition
- (b) Market segment
- (c) Competitive strategy
- (d) All of the above

(a)

(b)

(c)

(d)

5) Which of the following features is a part of Subscription Model? *1 point*

- (a) Recurring revenue
- (b) One time charge
- (c) Pay-per-outcome
- (d) None of the above

(a)

6) Which of the following is a challenge faced in Outcome-based Model? *1 point*

- (a) Reduced risks
- (b) Lack of proven business model
- (c) Profit margin
- (d) Customer satisfaction

(a)  
 (b)

7) How many types of business model are there for IIoT? *1 point*

- (a) 4
- (b) 3
- (c) 2
- (d) 1

(a)  
 (b)

8) Which of the following statements is/are true about active and passive RFID? *1 point*

- (a) Active RFID uses a dedicated power source
- (b) Passive RFID is powered by the RFID reader
- (c) Both a and b
- (d) None of the above

(a)  
 (b)  
 (c)

9) What are the outcomes of Process oriented business model? *1 point*

- (a) Reduced downtimes
- (b) Increased machine availability
- (c) Both a and b
- (d) None of the above

(a)  
 (b)  
 (c)

10) What does IIRA stand for? *1 point*

- (a) Industrial IoT Reference Architecture
- (b) Industrial Internet Reference Architecture
- (c) IoT Industry Reference Architecture
- (d) Industrial Internet Recount Access

(a)  
 (b)

11) Which of the following is a category of KPI? *1 point*

- (a) Leading KPI
- (b) Lagging KPI
- (c) Both a and b
- (d) None of the above

(a)  
 (b)  
 (c)

12) *1 point*

What is the function of a databus in a Layered databus pattern in IIRA?

- (a) It communicates between applications and devices
- (b) It allows interoperability between endpoints
- (c) Minimizes the response time with faster device-to-device integration
- (d) All of the above

(a)  
 (b)  
 (c)  
 (d)

13) Task in Usage viewpoint is defined as -

1 point

- (a) Basic unit of work
- (b) Functional map
- (c) Implementation map
- (d) None of the above

(a)

14) What are the different elements of an activity in Usage viewpoint? 1 point

- (a) Trigger, workflow, edge, constraints
- (b) Time, work, effect, constraints
- (c) Task, work, edge, constraints
- (d) Trigger, workflow, effect, constraints

(a)  
 (b)  
 (c)

15) Which domain of Functional viewpoint handles data distribution? 1 point

- (a) Information
- (b) Application
- (c) Operation
- (d) Business

(a)

WEEK 5 2021B

## Week 5 : Assignment 5

Assignment not submitted

Due date: 2021-09-01, 23:59 IST.

1) According to ICP DAS, which of the following is observed as an energy-related challenge in Industry 4.0?

- a. Pollution monitoring
- b. Surveillance
- c. System health diagnosis
- d. Motion control

(a)

(b)

(c)

(d)

2)

Caterpillar uses \_\_\_\_\_ for enabling smart view.

- a. AR and VR
- b. AR and IoT
- c. VR and IoT
- d. None of the above

(a)

(b)

(c)

(d)

3)

Which of the following belong(s) to the technology sector of Komatsu?

- a. Self-driving trucks
- b. JoyConnect
- c. Micro vision
- d. Mining intelligence

(a)

(b)

(c)

(d)

4)

\_\_\_\_\_ is/are the building blocks of a contemporary business model.

- a. Revenue generations and margin
- b. Market segment
- c. Both (a) and (b)
- d. None of the above

(a)

(b)

(c)

(d)

5)

How many types of pricing models can be observed in the revenue generation and margins of a contemporary business model?

- a. 2
- b. 3
- c. 4
- d. 5

(a)

(b)

(c)

(d)

6)

Outcome-based business model provides benefits to its customers as \_\_\_\_\_.

- a. Pay-per-service
- b. Pay-per-outcome
- c. Pay-per-data
- d. All of the above

(a)

(b)

(c)

(d)

7) What are the main components of IIoT business models?

- a. Value proposition
- b. Value network
- c. Value communication
- d. All of the above

(a)  
 (b)  
 (c)  
 (d)

8) Which of the following customer categories is/are the target customer(s) of a generic cloud-based business model?

- a. Educational institutions
- b. Startups
- c. Both (a) and (b)
- d. None of the above

(a)  
 (b)  
 (c)  
 (d)

9) In a service-oriented business model, the distribution of channels is \_\_\_\_\_.

- a. On-demand
- b. Proactive
- c. Both (a) and (b) based on the managers' decision
- d. None of the above.

(a)  
 (b)  
 (c)  
 (d)

10) Which of the following architectures is considered as a standard architecture for IIoT systems?

- a. Industrial Internet Recurring Architecture
- b. Industrial Internet Reference Architecture
- c. Industrial Information Reference Architecture
- d. None of the above

(a)  
 (b)  
 (c)  
 (d)

11) Which of the following is/are present in the Architecture frame of the IIRA framework?

- a. Identify the ideas of a stakeholder
- b. Describe the ideas of a stakeholder
- c. Analyze the ideas of a stakeholder
- d. All of the above

(a)  
 (b)  
 (c)  
 (d)

12) Which of the following layers is/are present in IIRA?

- a. Edge layer
- b. Sensing layer
- c. Finance Layer
- d. Energy Layer

(a)  
 (b)  
 (c)  
 (d)

13) Which of the following is/are considered as the business viewpoint(s) of business decision makers?

- a. Fundamental capabilities
- b. Key objectives
- c. Vision
- d. Both (b) and (c)

(a)  
 (b)  
 (c)  
 (d)

14) The usage viewpoint of IIRA includes \_\_\_\_\_.

- a. Key capabilities
- b. Role
- c. Vision
- d. Values

(a)  
 (b)  
 (c)  
 (d)

15) The control domain of functional viewpoint includes \_\_\_\_\_.

- a. Sensing
- b. Actuation
- c. Communication
- d. All of the above

(a)  
 (b)  
 (c)  
 (d)

# Week 5 : Assignment 5

Your last recorded submission was on 2022-02-22, 15:37 IST

Due date: 2022-03-02, 23:59 IST.

1) Amazon applies the features of IIoT to reduce the operational cost and increase the operational latency in \_\_\_\_\_. **1 point**

- (a) Goods production
- (b) Human resource management
- (c) Warehouse management
- (d) None of the above

2) The smart factory features of Cisco & Fanuc include \_\_\_\_\_. **1 point**

- (a) Failure forecasting
- (b) Predictive Maintenance
- (c) ZDT
- (d) All of the above

3) Which of the following does John Deere facilitate? **1 point**

- (a) Precision agriculture
- (b) Traffic navigation system
- (c) Drone-based package delivery
- (d) None of the above

4) Which of the following belongs to the building blocks of a generic business model? **1 point**

- (a) Revenue generation and Margins
- (b) Non-competitive strategy
- (c) Logistics structure
- (d) None of the above

5) The Subscription Model is capable of generating **1 point**

\_\_\_\_\_.

- (a) One-time revenue
- (b) No revenue
- (c) Recurring revenue
- (d) None of the above

6) In which of the following scenarios can IoT **1 point**

products be used as "a proxy to sell another product"?

- (a) Sell products which does not require refills
- (b) Sell products which requires refills
- (c) Collect data from users while providing services
- (d) None of the above

7) Which of the following raise(s) the need for new **1 point**

business models for IoT?

- (a) Increased business opportunities due to the advent of IoT
- (b) Unstructured ecosystem in IoT
- (c) Extended scope beyond the company level to ecosystem level
- (d) All of the above

8) Which of the following is a type of IIoT business **1 point** model?

- >  (a) Cloud-based
- re  (b) Service-oriented
- (c) Process-oriented
- >  (d) All of the above

9) Which of the following is/are the challenge(s) of **1 point** the security framework in IIoT business model?

- (a) Device level authentication
- (b) Application security
- (c) Both (a) and (b)
- (d) None of the above

10) Which of the following is/are considered as the **1 point** safety requirement(s) in IIRA infrastructure?

- (a) Condition of operating system
- (b) No unexpected risk of physical injury to people
- (c) Damage to property or environment is avoided
- (d) All of the above

11) What is IIRA? **1 point**

- (a) Industrial Internet Reference Academy
- (b) Industrial Interoperable Reference Architecture
- (c) Industrial Internet Reference Architecture
- (d) Informative Internet Reference Architecture

12) IIRA v1.8 includes a \_\_\_\_\_-tier architecture. **1 point**

- (a) 4
- (b) 3
- (c) 2
- (d) 5

13) The gateway-mediated edge architecture in IIRA **1 point** v1.8 consists of \_\_\_\_\_.

- (a) IIoT edge system
- (b) Local Area Network
- (c) Gateway connecting the Wide Area Network
- (d) All of the above

14) How many types of IIRA viewpoints are described by IIC?

*1 point*

- (a) 4
- (b) 3
- (c) 2
- (d) 5

15) Execution of a task in the usage viewpoint of IIRA includes \_\_\_\_\_.

*1 point*

- (a) Logistics map
- (b) Role
- (c) Managerial map
- (d) all of the above

WEEK 5 2022B

## Week 5 : Assignment 5

Assignment not submitted

Due date: 2022-08-31, 23:59 IST.

1) The different sectors of Industry 4.0 includes \_\_\_\_\_.

*1 point*

- (a) Smart robotics
- (b) Intelligent Manufacturing
- (c) Both (a) and (b)
- (d) None of the above

- a
- b
- c
- d

2) The caterpillar denotes \_\_\_\_\_.

*1 point*

- (a) Smart view using IoT and Augmented Reality (AR)
- (b) Real time machine status and condition monitoring
- (c) Long term data analytic to predict future failures and budget
- (d) All of the above

- a
- b
- c
- d

3) Which of the following does John Deere facilitate? 1 point

- (a) Precision agriculture
- (b) Traffic navigation system
- (c) Drone-based package delivery
- (d) None of the above

a  
 b  
 c  
 d

4) Which of the following are the primary components of a generic business model? 1 point

- (a) Revenue generation and Margins
- (b) Relationship with customers
- (c) Essential Resources
- (d) All of the above

a  
 b  
 c  
 d

5) The Kaeser Kompressoren is \_\_\_\_\_. 1 point

- (a) Air-as-a-Service
- (b) Platform-as-a-Service
- (c) Infrastructure-as-a-Service
- (d) Software-as-a-Service

a  
 b  
 c  
 d

6) Gehring: Connected Manufacturing denotes \_\_\_\_\_. 1 point

- (a) Internet-connected sensor-equipped machinery enables real-time data streaming
- (b) Cloud-based analytics to reduce production downtime
- (c) Cloud-based analytics to increase productivity
- (d) All of the above

a  
 b  
 c  
 d

7)

Which of the following are included in the building blocks of a business model of IIoT?

1 point

- (a) Cost
- (b) Revenue
- (c) Both (a) and (b)
- (d) None of the above

a  
 b  
 c  
 d

8)

The advantages of IoT-as-a-Service are \_\_\_\_\_.

1 point

- (a) Reduced licensing costs
- (b) Increased revenue from planned upgrades
- (c) Better customer relations
- (d) All of the 

a  
 b  
 c  
 d

9)

The challenges of IoT-as-a-Service is/are \_\_\_\_\_.

1 point

- (a) Product compatibility
- (b) Maintaining data accuracy
- (c) Both (a) and (b)
- (d) None of the 

a  
 b  
 c  
 d

10)

Key performance indicators for OSH is \_\_\_\_\_.

1 point

- (a) a measure of the activities of an organization
- (b) Connect/communicate with customer
- (c) Drive towards improvement
- (d) All of the above 

a  
 b  
 c  
 d

12) The gateway devices of IIRA act as \_\_\_\_\_. 1 point

- (a) Management point for the edge devices locally
- (b) Local connectivity among the devices
- (c) Data transfer, processing and analytics
- (d) All of the above

a  
 b  
 c  
 d

13) The elements of an activity in the usage viewpoint includes \_\_\_\_\_. 1 point

- (a) Trigger
- (b) Control domain
- (c) Information domain
- (d) Application domain

a  
 b  
 c  
 d

14) In IIRA framework stakeholders are \_\_\_\_\_. 1 point

- (a) Individual, team or organizations having interest concerning to a system
- (b) Interest in the viewpoint and system
- (c) Both (a) and (b)
- (d) None of the above

a  
 b  
 c  
 d

15) The full form of IIC is \_\_\_\_\_. 1 point

- (a) Industrial Internet Consortium
- (b) Intranet Internet Consortium
- (c) Integrated Internet Consortium
- (d) Intermediate Internet Consortium

a  
 b  
 c  
 d

WEEK 5 2023A

# Week 05: Assignment 05

Assignment not submitted

Due date: 2023-03-01, 23:59 IST.

- 1) Lumada is an IoT platform with advanced AI-based analytics. Which of the following companies created Lumada? **1 point**
- (a) Boeing  
 (b) Hitachi  
 (c) Amazon  
 (d) Google
- 2) Which type of reference architecture for IIoT enables quick device-to-device integrations, automated data delivery of applications within the buses, isolation of hierarchical subsystems, and integrations of sensors and actuators ?? **1 point**
- (a) Three-tier IIoT architecture  
 (b) Layered Databus IIoT architecture  
 (c) Gateway-based IIoT architecture  
 (d) Virtual IIoT architecture
- 3) Values for customer segments in a Business Model can be categorized as \_\_\_\_\_. **1 point**
- (a) Qualitative  
 (b) Quantitative  
 (c) Both a and b  
 (d) None of the above
- 4) Which of the following properties is/are part of the Outcome-based Business Model ? **1 point**
- (a) Customers are relieved from the responsibilities of ownership and maintenance.  
 (b) Businesses deliver to the customer the outcome that the product/service provides.  
 (c) It reduces the negotiation cycle.  
 (d) All of the above
- 5) In which of the business models does businesses virtually consolidate and share their IoT-enabled assets among multiple customers or with other business entities in exchange of revenue? **1 point**
- (a) Asset-Sharing Model.  
 (b) Outcome-based Model.  
 (c) Subscription Model.  
 (d) None of the above
- 6) What is/are the challenges of implementing IoT-as-a-Service? **1 point**
- (a) Product compatibility  
 (b) Better customer relation  
 (c) Reduced licensing cost  
 (d) None of the above
- 7) Platform-as-a-Service is a type of \_\_\_\_\_. **1 point**
- (a) Cloud-based IIoT business model  
 (b) Service-oriented IIoT business model  
 (c) Process-oriented business model  
 (d) None of the above
- 8) What is/are the challenges(s) of IIoT business model? **1 point**
- (a) Lack of interoperability  
 (b) Data privacy and security  
 (c) Increased cost  
 (d) All of the above
- 9) Which one of the following is/are core competency(ies) of the Cloud-based IIoT business model? **1 point**
- (a) Platform  
 (b) Data  
 (c) Software infrastructure  
 (d) All of the above

- 10) Which of the following defines IIoT? 1 point
- (a) It is a standard architecture for IIoT systems  
 (b) It is a business model for IIoT  
 (c) It is a factory manufacturing IoT products  
 (d) It is the fourth stage of the Industrial Revolution
- 11) What is the function of leading KPI? 1 point
- (a) Leading KPI is used to predict the economy  
 (b) Leading KPI is used to measure the changes in economy after it has begun  
 (c) Leading KPI is used as a technical indicator of the economy after it has begun  
 (d) Leading KPI captures the number of fatalities for OSH
- 12) What is Industrial Internet Consortium? 1 point
- (a) A for-profit organization for promotion of open standards  
 (b) A non-profit organization for promotion of open standards  
 (c) A software platform  
 (d) All of the above
- 13) Which of the following is/are not part of the IIRA Framework? 1 point
- (a) Stakeholder  
 (b) Viewpoint  
 (c) Architecture Frame  
 (d) Position Frame
- 14) How many viewpoints are there in the IIRA? 1 point
- (a) 6  
 (b) 4  
 (c) 5  
 (d) 3
- 15) What is Role in context of the Usage viewpoint of IIRA? 1 point
- (a) Describes the functional component of the task maps.  
 (b) Coordination of specific tasks  
 (c) Set of capacities assumed by an entity or organization  
 (d) All of the above

WEEK 5 2023B

## Week 5 : Assignment 5

Your last recorded submission was on 2023-08-28, 12:21 IST

Due date: 2023-08-30, 23:59 IST.

- 1) Which of the following is a feature of Amazon Smart Warehousing's logistics and supply chain management? 1 point
- a) Manual control of supply fleet
  - b) Logistic status update with future market demand
  - c) Centralized customer service
  - d) Distributed parking and space surrounding control
- 2) How does Boeing achieve efficient manufacturing? 1 point
- (a) Using smart & digital manufacturing facility
  - (b) By lowering assembly delay & response time
  - (c) By reducing errors in manufacture & assembly
  - (d) All the above
- 3) Which of the following company provides Air-as-a-Service? 1 point
- (a) Kaeser Kompressoren
  - (b) Hitachi
  - (c) John Deere
  - (d) Komatsu
- 4) According to the International Labor Organization, what is the approximate death rate owing to occupational disease or accident? 1 point
- (a) ~1/5 seconds
  - (b) ~1/10 seconds
  - (c) ~1/15 seconds
  - (d) ~1/20 seconds

5) What is a Business Model?

1 point

- (a) A business model describes the rationale of how an organization creates, delivers, and captures value.
- (b) It is the embodiment of the organizational and financial architecture of a business.
- (c) It is the description of how a business intends to operate and earn profits in a specific marketplace.
- (d) All of the above

- (a)
- (b)
- (c)
- (d)

6) What is a Market Segment?

1 point

- (a) It is the different groups of customers or end-user organizations that the business enterprise aims to serve.
- (b) It is the key resources and activities that a business requires to create value proposition.
- (c) It is the products or services that create value for the customer segment.
- (d) All of the above

- (a)
- (b)
- (c)
- (d)

7) Which of the following statement is untrue w.r.t. Subscription Model?

1 point

- (a) It can be used for Smart Energy
- (b) It brings together the businesses and their customers to monetize the solutions
- (c) It aims to minimize downtime and maximize utilization of the assets
- (d) It is not capable of generating “recurring” revenue

- (a)
- (b)
- (c)
- (d)

8) Which of the following is not an IIoT business models?

1 point

- (a) Cloud-based Business Model
- (b) Service-Oriented Business Model
- (c) Outcome-based Business Model
- (d) Process-Oriented Business Model

- (a)
- (b)
- (c)
- (d)

9) Which of the following Cloud-Based Business Model aims to provide the required hardware and software online in the cloud?

1 point

- (a) Infrastructure-as-a-Service
- (b) Platform-as-a-Service
- (c) Software-as-a-Service
- (d) All of the above

(a)  
 (b)  
 (c)  
 (d)

10) Which of the following is a/are challenge(s) of IIoT Business Model?

1 point

- (a) Lack of interoperability
- (b) Immature or untested technologies
- (c) Increase complexity
- (d) All of the above

(a)  
 (b)  
 (c)  
 (d)

11) What is the full form of IIRA?

1 point

- (a) Industrial Internet Related Architecture
- (b) Industrial Internet Regional Architecture
- (c) Industrial Internet Reference Architecture
- (d) Industrial Internet Real-time Architecture

(a)  
 (b)  
 (c)  
 (d)

12) "Industrial Internet Consortium (IIC) is a non-profit organization created to promote open standards and interoperability for industry technologies and machine-to-machine (M2M) environments." – Is the statement True or False?

1 point

- (a) True
- (b) False

(a)  
 (b)

- 13) Which of the following are the components of Gateway-Mediated Edge Architecture? 1 point
- (a) Edge layer, Platform layer, Enterprise layer
  - (b) Physical layer, Edge devices/Gateway, Cloud
  - (c) Sensors and Actuators, Edge devices/Gateway, Wide Area Network
  - (d) Smart Machines, System of Systems, Industrial Internet
- (a)  
 (b)  
 (c)  
 (d)
- 14) Which of the following is not a viewpoint of IIRA? 1 point
- (a) Business viewpoint
  - (b) Market viewpoint
  - (c) Functional viewpoint
  - (d) Usage viewpoint
- (a)  
 (b)  
 (c)  
 (d)
- 15) How many domains are there in the Functional Viewpoint of IIRA? 1 point
- (a) 4
  - (b) 5
  - (c) 6
  - (d) 7
- (a)  
 (b)  
 (c)  
 (d)

WEEK 5 2024A

## Week 5 : Assignment 5

Assignment not submitted

Due date: 2024-02-28, 23:59 IST.

- 1) What is a key technology driver in Amazon's Smart Warehousing? 1 point
- a. Warehouse Automation
  - b. Drone Delivery
  - c. Cryptocurrency Payments
  - d. 3D Printing

A

2) Which of the following is not covered under the domain of Industry 4.0? 1 point

- a. Intelligent manufacturing
- b. Smart warehousing
- c. Smart logistics
- d. Rapid deforestation

a.  
 b.  
 c.  
 d.

3) Which of the following IIoT platforms is used by Hitachi? 1 point

- a. UnifyTwin
- b. Lumada
- c. Insights Hub
- d. RootCloud

a.  
 b.

4) Which of the following is not a type of business model for IoT? 1 point

- a. Subscription Model
- b. Outcome-Based Model
- c. Asset-Sharing Model
- d. Loss-Sharing Model

a.  
 b.  
 c.  
 d.

5) Which is an advantage of the Subscription Model in IoT? 1 point

- a. Predictable recurring revenue
- b. High initial costs
- c. Limited customer interaction
- d. Single revenue stream

a.  
 b.  
 c.  
 d.

6) Which is a critical challenge of the IoT-as-a-Service model? 1 point

- a. Limited product applicability
- b. Over-dependence on manual processes
- c. Security of data
- d. Reduced licensing costs

a.  
 b.  
 c.  
 d.

7) Which of the following is NOT offered by a Service-Oriented IIoT Business Model? 1 point

- a. CapEx-focused investment strategies
- b. Aggregation and analysis of data
- c. On-demand services backed by cloud-based Business Models
- d. Self-service interface

- a.
- b.
- c.
- d.

8) Process Oriented Business Model is a \_\_\_\_\_ business model? 1 point

- a. Static
- b. Actuating
- c. Hybrid
- d. Defunct

- a.
- b.

9) What is IIRA? 1 point

- a. A standard architecture for IIoT Systems
- b. A scheme for corporate tax rebate
- c. A package for installing IIoT Software
- d. An internship program for IoT enthusiasts

- a.

10) Which of the following statements is incorrect about IIRA? 1 point

- a. Safety is not a concern in the IIRA infrastructure,
- b. The IIRA infrastructure allows interoperability
- c. The IIRA infrastructure is proposed by the IIC Technology Working Group
- d. The IIRA infrastructure maps application technologies

- a.

11) Which of the following is not a component of the three-tier architecture pattern of IIRA? 1 point

- a. Edge layer
- b. Fog layer
- c. Platform layer
- d. Enterprise layer

- a.
- b.

12) What are the IIRA Viewpoints? 1 point

- a. Mining, Smelting, Forging and Casting
- b. User, Demand, Production and Supply
- c. Analysis, Management, Manipulation and Modification
- d. Business, Usage, Functional and Implementation

- a.
- b.
- c.
- d.

13) The elements of an activity in IIRA are \_\_\_\_\_. 1 point

- a. Controls, Events, Feedback, and Termination
- b. Cause and Effect
- c. Trigger, Workflow, Effect, and Constraints
- d. Planning, Projection, Execution, and Feedback

a.  
 b.  
 c.  
 d.

14) In the Business Viewpoint of IIRA, what are fundamental capabilities? 1 point

- a. High-level specifications essential for business tasks
- b. Detailed technical standards
- c. Financial goals
- d. Marketing strategies

a.  
 b.  
 c.  
 d.

15) With respect to the IIRA functional domain, industrial actuation falls under which of the following domains? 1 point

- a. Operations Domain
- b. Business Domain
- c. Control Domain
- d. Application Domain

a.  
 b.  
 c.  
 d.

