

## WEEK 2 2020A

# Assignment 2

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

Due on 2020-02-12, 23:59 IST.

1) When did the third industrial revolution prompted? 1 point

- a. In 1950s
- b. In 1960s
- c. In 1970s
- d. None of the above

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

*b.*

2) Among the following, which is not within the scope of the fourth industrial revolution? 1 point

- a. Smart Connected Machines
- b. Smart Factories
- c. Gene Sequencing
- d. None of the above

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

*d.*

3) Which is/are part of automation pyramid of a smart factory? 1 point

- a. Control.
- b. ERP.
- c. Manufacturing execution system.
- d. All of the above.

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

*d.*

4)	“An optimized smart factory optimizes the reliability of the product.” Choose whether the statement is true or false.	<i>1 point</i>
	a. True. b. False.	
	<input type="radio"/> a. <input type="radio"/> b.	
	No, the answer is incorrect.	
	Score: 0	
	Accepted Answers:	
	a.	
5)	What is the primary responsibility of physical layer of smart and connected products?	<i>1 point</i>
	a. To collect and acquire data from object or environment. b. Connect the smart devices. c. Equipped with different communication technology. d. None of the above	
	<input type="radio"/> a. <input type="radio"/> b. <input type="radio"/> c. <input type="radio"/> c.	
	No, the answer is incorrect.	
	Score: 0	
	Accepted Answers:	
	a.	
6)	Which is not a part of novelty centric business model?	<i>1 point</i>
	a. New services. b. Building trust. c. New market. d. Innovation.	
	<input type="radio"/> a. <input type="radio"/> b. <input type="radio"/> c. <input type="radio"/> d.	
	No, the answer is incorrect.	
	Score: 0	
	Accepted Answers:	
	b.	
7)	Which is not a part of digital layer of smart and connected products?	<i>1 point</i>
	a. Analyzes the data. b. Acquires the data. c. Stores the data. d. Processes the data.	
	<input type="radio"/> a. <input type="radio"/> b. <input type="radio"/> c. <input type="radio"/> d.	
	No, the answer is incorrect.	
	Score: 0	
	Accepted Answers:	
	b.	

8)

1 point

Which of the following describes the transportation waste in industry?

- a. Excessive movements of people for materials or information
- b. Excessive movements of materials
- c. Non value added movement of people
- d. None of the above

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

9)

1 point

Which of the following describes the waiting waste in industry?

- a. Excessive movements of people for materials or information
- b. Period of inactivity of people for material or information
- c. Non value added movement of people
- d. Period of inactivity of marketing for material or information

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

10)

1 point

How does energy price affect sustainability?

- a. Increase in energy affects sustainability
- b. Decrease in energy affects sustainability
- c. Depending upon situation, increase or decrease in energy affects sustainability
- d. None of the above

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

a.

11)

Which of the following is considered as one of the important aspects of population growth that affects the creation of productive society?

- a. Industry location
- b. Food supply
- c. Politics
- d. Both (a) and (c)

1 point

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

12)

Which of the following is not one of the main characteristics of Business Model?

- a. Strategic approach
- b. Maximizing economic profits for an enterprise
- c. Competitive benefits
- d. None of the above

1 point

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

d.

13)

What was the main driver of the first industrial revolution?

- a. Electricity and assembly line
- b. Steam engine and construction of railways
- c. Both (a) and (b)
- d. None of the above

1 point

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

b.

14)

*1 point*

**Resource(s) of automation is/are –**

- a. Control.
- b. Monitor.
- c. Software algorithms.
- d. All of the above.

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

*d.*

15)

*1 point*

Which of the following is one of the most important aspects of Lean Production System?

- a. JIDOKA
- b. JIT
- c. Both (a) and (b)
- d. None of the above

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

*c*

C

WEEK 2 2021A

## Week 2 Assignment 2

Assignment not submitted

Due date: 2021-02-03, 23:59 IST.

- 1) What does an emerging market signify? 1 point

- a. Capable of meeting the standards of newly developed and innovative product
- b. Capable of fulfilling the customer's needs
- c. Able to meet the quality of raw material
- d. Able to meet the market standards

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

- 2) What is/are the essential components of a smart factory? 1 point

- a. Smart machines
- b. People at work
- c. Trained personnel
- d. All of the above

- (a)
- (b)



- 3) What were the outcomes of the fourth industrial revolution? 1 point

- a. Cheaper sensors, size of the sensors are reduced, powerful
- b. Cost and size of sensors increased, power consumption increased
- c. Cost of sensors increased, size reduced, and power consumption increased
- d. Cost and size of sensors reduced, power consumption increased

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

- 4) What do tipping points represent? 1 point

- a. Necessary radical changes required in the near future
- b. Changes occurred in past
- c. Necessary changes in the system
- d. Necessary changes in present

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



- 5) What does performance management signify? 1 point

- a. Management of people
- b. Management of resources
- c. Management of produced goods
- d. None of the above

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



- 6) What does the overproduction type waste signify? 1 point

- a. Production of bad products
- b. Production of good quality and cheaper goods
- c. Production of good products
- d. Production of more product sooner than the customers are ready

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



- 7) What is the role of advancement in technology in the global market? 1 point
- a. Conversion of traditional to automated system
  - b. Introducing agility and flexibility in the products
  - c. Introduction of flexibility in the process
  - d. Both(a) and (b)
- (a)  
 (b)  
 (c)  
 (d)
- 8) What is the function of the physical layer of a smart business model? 1 point
- a. Collects or acquires data from object or environment
  - b. Collects data only from environment
  - c. Collects data only from physical objects
  - d. Collects data from connected things
- (a)  
 (b)  
 (c)  
 (d)
- 9) What does value streams mean in lean approach? 1 point
- a. Actions required for a product from order to delivery
  - b. Actions required to process a product
  - c. Actions required for packaging a finished product
  - d. None of the above
- (a)  
 (b)  
 (c)  
 (d)
- 10) What are the characteristics of a smart manufacturing process? 1 point
- a. Dynamic, automation, real time, and efficient
  - b. Active, automation, real-time, and continuous
  - c. Dynamic, automation, active, and continuous
  - d. Dynamic, real-time, and discrete
- (a)  
 (b)  
 (c)  
 (d)
- 11) What does the term optimization mean in a smart factory? 1 point
- a. Optimizing the throughput
  - b. Optimizing the energy
  - c. Optimizing the reliability
  - d. All of the above
- (a)  
 (b)  
 (c)  
 (d)
- 12) What are the key attributes of a smart business model? 1 point
- a. Value proposition
  - b. Revenue streams
  - c. Technologies
  - d. All of the above
- (a)  
 (b)  
 (c)  
 (d)

- 13) With the help of which technologies, does the biological world communicate?
- a. Digital fabrication
  - b. Analog-based technologies
  - c. Scientific technologies
  - d. None of the above

1 point

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

- 14) What was the outcome of the second industrial revolution?
- a. Utilization of machines in production
  - b. Mass production
  - c. Communication schemes
  - d. None of the above

1 point

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

- 15) What is the most important stage in supply chain management?
- a. Selection of outsourcing components or raw materials
  - b. Selection of proper vehicles for transportation of materials
  - c. Selection of proper site for warehouse
  - d. Selection of proper quantity to be transported

1 point

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

## Week 2 : Assignment 2

Assignment not submitted

Due date: 2021-08-18, 23:59 |

- 1) What was the trigger for the Fourth Industrial revolution?
- a. Digital revolution
  - b. Production of semiconductor
  - c. Both a and b
  - d. None of the above

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

- 2) What were the major drivers of the Fourth Industrial Revolution?
- a. Digitization
  - b. Information technologies
  - c. Both a and b
  - d. None of the above

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

- 3) What does a tipping point refer to in terms of industrial revolution?
- a. Radical changes required in the future
  - b. Historical changes in the past
  - c. Tips given to people working in IoT
  - d. None of the above

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

4) Which of the following is an element of globalization?

- a. Supply chain management
- b. Emerging market
- c. Business models
- d. All of the above

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

5) Advancement in technology facilitates manufacturing with high quality products.

- a. False
- b. True

(a)  
 (b)

6) Which government agency is responsible for environmental regulations?

- a. Environmental protection agencies
- b. Ecological Mining and metal agencies
- c. Labour protection agencies
- d. None of the above

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

7) What is the expected duration of a recession?

- a. Few months to not more than 2 years
- b. Few months to not more than 5 years
- c. Few months to not more than 1 year
- d. 1 month to 6 months

(a)

(b)

(c)

(d)

8) Finishing good inventories through eliminating wastes from processes is the property of which type of production system?

- a. Thin production system
- b. Lean production system
- c. Sustainable production system
- d. None of the above

(a)

(b)

(c)

(d)

9) How many types of wastes are defined in the Lean production system?

- a. 3
- b. 10
- c. 7
- d. 11

(a)

(b)

(c)

(d)

10) What are the impacts of the lean production system?

- a. Lower cost
- b. Shortest lead time
- c. Provides best quality
- d. All of the above

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

11) Smart and connected products can be achieved through \_\_\_\_\_.

- a. Embedded systems
- b. Cloud computing
- c. Internet of Things
- d. All of the above

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

12) Which of the following is one of the key attributes of a smart business model?

- a. Value proposition
- b. Higher production cost
- c. Higher waste generation
- d. None of the above

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

13) What is meant by agility in a smart factory?

- a. Self-configuration
- b. Flexibility
- c. Both a and b
- d. None of the above

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

14) What is the use of smart grid in smart factories?

- a. Load balancing.
- b. Scalability provides freedom in terms of computing and data storage.
- c. Future prediction.
- d. All of the above

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

15) Which technology can be used to operate instruments remotely in smart factories?

- a. Augmented reality
- b. Smart grid
- c. Both a and b
- d. None of the above

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

## Week 2 : Assignment 2

Assignment not submitted

Due date: 2022-02-09, 23:59 IST.

1) Which of the following is not an example of a biological megatrend of the fourth industrial revolution? **1 point**

- (a)Genetic sequencing
- (b)Recommender System (IBM Watson)
- (c)Bitcoin
- (d)Cell Modification

2) \_\_\_\_\_ of manufacturing industry in Industry 4.0 incorporates evaluation of relevant issues and performance metrics. **1 point**

- (a)Infrastructure assessment
- (b)Cost assessment
- (c)Supply chain assessment
- (d)Sustainability assessment

3) Which of the following is not an element of globalization? **1 point**

- (a)Energy price
- (b)Supply Chain Management
- (c)Business Models
- (d)None of the above

4) Which of the following incorporates the knowledge of international and local cultures in business models? **1 point**

- (a)Sustainable modification
- (b)Sustainable customization
- (c)Mass customization
- (d)Mass modification

5) Which of the following is true about recession and depression?

**1 point**

- (a) Duration of recession ranges between a few months to 2 years, whereas that of depression is more than 2 years
- (b) Duration of depression ranges between a few months to 2 years, whereas that of recession is more than 2 years
- (c) Duration of recession ranges between a few months to 3 years, whereas that of depression is more than 3 years
- (d) Duration of depression ranges between a few months to 3 years, whereas that of recession is more than 3 years

6) Which of the following is true for lean approach?

**1 point**

- (a) Looks from tasks perspective
- (b) Looks from production perspective
- (c) Looks from overall expenditure perspective
- (d) Looks from customers perspective

7) Over processing refers to –

**1 point**

- (a) Doing more work in a product than the customer values
- (b) Producing more product sooner than the customers are ready for
- (c) Inactivity period of people due to lack of material or information
- (d) None of the above

8) Which of the following types of works can be observed in a product's value stream? **1 point**

- (a) Value-added
- (b) Incidental
- (c) Both (a) and (b)
- (d) None of the above

9) Which of the following principles should be followed for the implementation of people **1 point** engagement in a lean production system?

- (a) Learn, Adapt, Do
- (b) Learn, Do, Teach
- (c) Learn, Teach, Adapt
- (d) Adapt, Do, Teach

- 10) Smart and connected products help in \_\_\_\_\_ by optimizing the resources. **1 point**
- (a)Enhancing performance
  - (b)Enabling remote services
  - (c)Assisting in product repairing
  - (d)All of the above
- 11) The function of digital layer in a smart business model includes – **1 point**
- (a)Storing Data
  - (b)Analyzing Data
  - (c)Processing Data
  - (d)All of the above
- 12) Which of the following is an advantage of running smart factories? **1 point**
- (a)Reduced predictability
  - (b)Improved quality
  - (c)Increased cost
  - (d)Reduced safety
- 13) Which of the following is not a component of a smart factory? **1 point**
- (a)Smart devices
  - (b)Smart engineering
  - (c)Smart homes
  - (d)Innovation
- 14) Which of the following is a supporting technology for smart factories? **1 point**
- (a)Smart grid
  - (b)Big data
  - (c)Both (a) and (b)
  - (d)None of the above
- 15) Which of the following is used to operate instruments remotely in smart factories? **1 point**
- (a)Augmented Reality
  - (b)Supply chain
  - (c)Both (a) and (c)
  - (d)None of the above

WEEK2 2022B

## Week 2 : Assignment 2

Assignment not submitted

Due date: 2022-08-10, 23:59 IST.

- 1) The Internet was a result of which of the following industrial revolutions? 1 point
- a. First Industrial Revolution
  - b. Second Industrial Revolution
  - c. Third Industrial Revolution
  - d. None of the above
- a  
 b  
 c  
 d
- 2) \_\_\_\_\_ Industrial Revolution is coined as "The Second Machine Age" 1 point
- a. Second
  - b. Internet
  - c. Fourth
  - d. Third
- a  
 b  
 c  
 d
- 3) Which of the following is/are the tipping points of 2025? 1 point
- a. Unlimited free storage
  - b. Connected clothing
  - c. Robotic Pharmacist
  - d. All of the above
- a  
 b  
 c  
 d
- 4) Sustainable industry provides - 1 point
- a. Energy efficiency
  - b. Conservation of resources
  - c. Low-waste production
  - d. All of the above
- a  
 b  
 c  
 d

5) \_\_\_\_\_ is considered the main nervous system of any manufacturing industry? 1 point

- a. Information and communication technology
- b. Sustainable development
- c. MQTT protocol
- d. None of the above

a  
 b  
 c  
 d

6) What are the benefits of government regulation in manufacturing industries? 1 point

- a. Prevents the manufacturing industry from unfair competition
- b. Prevents the manufacturing industry from compensating the workers fairly
- c. Both a and b
- d. None of the above

a  
 b  
 c  
 d

7) Waste elimination is one of the objectives of Lean manufacturing. Which of the following is a type of waste in manufacturing? 1 point

- a. Waiting time
- b. Inventory
- c. Transportation
- d. Energy efficiency

a  
 b  
 c  
 d

**a, b, c is correct**  
**d is wrong**

8) What are the business requirements for the implementation of lean production system? 1 point

- a. Set right objectives
- b. Clear about strategy
- c. Clear about contributions
- d. All of the above

a  
 b  
 c  
 d

9) What are the three drivers of motivation for companies to implement Lean production? 1 point

- a. Cost, time, quality
- b. Technology, MQTT, CoAP
- c. Learn, Teach, Adapt
- d. Adapt, Do, Teach

a  
 b  
 c  
 d

10) Smart and connected products help in optimization by – 1 point

- a. Enhancing performance
- b. Enabling remote services
- c. Assisting in repairing the product
- d. All of the above

a  
 b  
 c  
 d

11) What are the benefits of smart and connected products – 1 point

- a. Faster
- b. Cheaper
- c. Smart supply chain
- d. All of the above

a  
 b  
 c  
 d

12) Which of the following is/are mediums to get smart and connected products? 1 point

- a. Internet of Things
- b. Sensors
- c. Cloud computing
- d. All of the above

a  
 b  
 c  
 d

13) What are the key attributes of a smart business model?

1 point

- a. Value proposition, revenue streams, technologies
- b. Smart engineering, smart homes, accuracy
- c. Smart homes, innovation, value proposition
- d. Innovation, revenue

a  
 b  
 c  
 d

14) What is/are the function(s) of digital layer in the smart business model?

1 point

- a. Stores the data
- b. Analyzes the data
- c. Processes the data
- d. All of the above

a  
 b  
 c  
 d

15) Which of the following is not a component of smart factory?

1 point

- a. Smart devices
- b. Automation
- c. High energy consumption
- d. All of the above

a  
 b  
 c  
 d

## WEEK 2 2023A

### Week 02: Assignment 02

Assignment not submitted

Due date: 2023-02-08, 23:59 IST.

- 1) Which industrial revolution is coined as "The second Machine Age" by Prof. Erik Brynjolfsson and Andrew McAfee of MIT? 1 point
- (a) First Industrial Revolution  
 (b) Second Industrial Revolution  
 (c) Third Industrial Revolution  
 (d) Fourth Industrial Revolution
- 2) Automation in manufacturing system, computers, the Internet, and usage of renewable energies are some of the advancement in technologies. 1 point  
which took place during the \_\_\_\_\_.
- (a) First Industrial Revolution  
 (b) Second Industrial Revolution  
 (c) Third Industrial Revolution  
 (d) Fourth Industrial Revolution
- 3) Which of the following is/are probable tipping points in 2025? 1 point
- (a) Intergalactic travels  
 (b) Clothes connected to the internet  
 (c) Mars Exploration  
 (d) AI with human emotions
- 4) Which of the following is provided in a sustainable Industry? 1 point
- (a) Renewable energy  
 (b) Low toxic gas emission  
 (c) Low-waste production  
 (d) High value products
- 5) Which of the following is an example of Information and Communication Technology (ICT)? 1 point
- (a) Enterprise Resource Planning (ERP)  
 (b) Global Positioning System (GPS)  
 (c) Radio Frequency Identification (RFID) system  
 (d) All of the above
- 6) How many different categories of countries are there based on population growth? 1 point
- (a) 2  
 (b) 3  
 (c) 4  
 (d) 5
- 7) Which of the following is an optimistic view of population growth? 1 point
- (a) Enhances the economic growth  
 (b) Consumes most of the economic investments in safety, need for schools, hospitals, universities  
 (c) Increases globalization issue such as trade and commerce  
 (d) None of the above
- 8) Which company developed Lean Production System? 1 point
- (a) Hyundai Motor Company  
 (b) Honda Motor Company  
 (c) Kia Corporation  
 (d) Toyota motor corporation
- 9) Why should companies implement lean approach? 1 point
- (a) Increase product quality  
 (b) Improved lead times  
 (c) Cost efficient  
 (d) All of the above
- 10) Which of the following cannot be considered as a medium of getting smart and connected? 1 point
- (a) Embedded Systems  
 (b) Cloud computing  
 (c) Manufacturing system  
 (d) Sensors

10) Which of the following cannot be considered as a medium of getting smart and connected? 1 point

- (a) Embedded Systems
- (b) Cloud computing
- (c) Manufacturing system
- (d) Sensors

11) What are the four key attributes of smart business models? 1 point

- (a) Value addition, revenue enhancements, and technologies
- (b) Value proposition, revenue centralization, and technologies
- (c) Value addition, revenue streams, and emerging trends
- (d) Value proposition, revenue streams, and technologies

12) Which of the following statements are correct? 1 point

- (a) Physical layer is responsible for collecting and acquiring data from object or environment.
- (b) Digital layer processes the data.
- (c) Physical layer is equipped with micro-controllers and sensors.
- (d) All of the above

13) \_\_\_\_\_ is a flexible system that can self-optimize performance across a broader network, self-adapt to and learn from new conditions in real or near-real time, and autonomously run entire production processes. 1 point

- (a) Lean production system
- (b) Automation system
- (c) Smart factory
- (d) Smart city

14) Which of the following is not a component of smart factory? 1 point

- (a) Smart engineering
- (b) Smart machines
- (c) Data analysis
- (d) Smart ideas

15) Which of the following is/are the use(s) of Big Data analytics in smart factories? 1 point

- (a) Improving value streams
- (b) Future prediction
- (c) Key Performance Indicator
- (d) All of the above

WEEK 2 2023B

## Week 2 : Assignment 2

Your last recorded submission was on 2023-08-04, 21:24 IST

Due date: 2023-08-09, 23:59 IST.

- 1) Which of the following is a feature of the Fourth industrial revolution? 1 point

- a. Use of Mainframes and the Internet
- b. Mass production
- c. Utilization of machines in production processes
- d. Use of AI ML, and CPS

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

- 2) \_\_\_\_\_ has helped in producing objects that are mutable and adaptable. Fill in the blank. 1 point

- a. Digital fabrication
- b. Additive manufacturing
- c. Synthetic biology
- d. None of the above

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

- 3) Select the option that best describes the tipping point. 1 point

- a. Radical change in the future that leads to innovation
- b. Change that leads to failing economy
- c. A point which marks the profit in business
- d. A space in factory floor for goods collection

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

- 4) Which of the following is/are drivers of sustainability in Industry 4.0? 1 point

- a. Globalization
- b. Socio-economic factors
- c. Environmental factors
- d. All of the above

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

5) Information regulation in public is covered under which of the following laws?

1 point

- a. Employment and Labor rules
- b. Advertisement regulations
- c. Environmental rules
- d. Privacy regulation

a.  
 b.  
 c.  
 d.



6) How does population growth affect the manufacturing industry?

1 point

- a. It affects the food supplies
- b. It affects the availability of industrial locations
- c. It affects the political actions and outcomes
- d. All of the above

a.  
 b.  
 c.  
 d.

7) Which of the following statements is true about recession?

1 point

- a. Recession is the extremity of depression
- b. Recession stays for only two months
- c. Recession is observable on GDP of a country
- d. All of the above

a.  
 b.  
 c.  
 d.

8) What is the method used by 6LowPAN for encapsulating a whole IPv6 packet into IEEE 802.15.4 frame?

1

- a. Fragmentation
- b. Adaptation
- c. Numbering
- d. Slicing

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



9) Which of the following is not an impact of the Lean production system on manufacturing?

1 point

- a. Highest lead time
- b. Low cost
- c. High quality
- d. All of the above

a.  
 b.  
 c.  
 d.

- 10) What is KPI in the context of performance management? 1 point
- a. Key Product Index
  - b. Key Performance Indicator
  - c. Key Performance Index
  - d. Key Product Identifier
- a.  
 b.  
 c.  
 d.
- 11) Which of the following statements is/are true about smart and connected products? 1 point
- a. Smart and connected products are cheaper
  - b. Decrease environmental impact
  - c. Improves recall process of products
  - d. All of the above
- a.  
 b.  
 c.  
 d.
- 12) Lock-in centric business models helps in 1 point
- a. Preventing customer migration
  - b. Eliminating errors
  - c. Making faster transactions
  - d. Creating new market for innovative product
- a.  
 b.  
 c.  
 d.
- 13) What is the function of the digital layer in a smart business architecture? 1 point
- a. Data storage
  - b. Data analysis
  - c. Data processing
  - d. All of the above
- a.  
 b.  
 c.  
 d.

14) Which of the following is not a characteristic of a smart factory? *1 point*

- a. Proactivity
- b. Agility
- c. Opaque
- d. Optimization

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

15) Which of the following falls under the Agility characteristic of a smart factory? *1 point*

- a. Predicting future challenges
- b. Real-time tracking
- c. Connected smart devices
- d. Self-configuration

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

WEEK 2 2024A

## Week 2 : Assignment 2

Assignment not submitted

Due date: 2024-02-07, 23:59 IST.

- 1) Which of the following is a key characteristic of the Fourth Industrial Revolution?

1 point

- a. Extensive use of steam engines
- b. Evasion of corporate taxes
- c. Widespread use of artificial intelligence
- d. Introduction of assembly lines

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



- 2) Which of the following is not a physical megatrend?

1 point

- a. Cloud Computing
- b. 3D Printer
- c. Autonomous Vehicle
- d. Advanced Robotics

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



- 3) How does Industry 4.0 enhance sustainability in manufacturing industries?

1 point

- a. By increasing manual labor
- b. Through globalization and emerging technologies
- c. By reducing the use of digital technologies
- d. Focusing on traditional manufacturing methods

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



- 4) What is a crucial aspect of Supply Chain Management (SCM) in sustainable manufacturing?

1 point

- a. Prioritizing high-cost production
- b. Ignoring environmental concerns
- c. Outsourcing without strategic planning
- d. Considering environmental concerns such as climate change, contamination, and resource consumption

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



5) What role does ICT play in the manufacturing industry?

1 point

- a. Reducing communication within the enterprise
- b. Serving as the main nervous system of any manufacturing industry
- c. Discouraging the sharing of information between customer, producer, and supplier
- d. Eliminating the need for enterprise resource planning

a.  
 b.   
 c.  
 d.



6) What characterizes an emerging market in the context of Industry 4.0?

1 point

- a. Markets that are fully developed and static
- b. Markets that meet the standards of newly developed innovative products
- c. Markets that exclusively focus on traditional products
- d. Markets that resist globalization

a.  
 b.   
 c.  
 d.



7) What is the primary focus of the Lean Production System?

1 point

- a. Overworking the employees to boost production
- b. Prioritizing customer needs
- c. Increasing the price of products
- d. Reducing technology use

a.  
 b.   
 c.  
 d.



8) Which among the following are aspects of socio-economic issues of sustainability in Industry 4.0?

1 point

- a. Social
- b. Economic
- c. Environmental
- d. All of the above

a.  
 b.  
 c.  
 d. 



9) The Lean Production System mainly focuses on the customer's need. Which company is credited for the development of Lean Production System?

1 point

- a. Siemens
- b. Toyota Motors
- c. Hitachi
- d. Microsoft

a.  
 b.  
 c.  
 d.



10) What is a major concern in implementing Lean Production in the context of Industry 4.0?

1 point

- a. Reducing digital technology use
- b. Integrating humans in plants
- c. Ignoring customer feedback
- d. Avoiding environmental considerations

a.  
 b.  
 c.  
 d.



11) Which of the following is not a benefit of smart and connected products?

1 point

- a. Decreased environmental impact
- b. Better usage of product
- c. Rapid increment in the sale price of a product
- d. Smart Supply Chain

a.  
 b.  
 c.  
 d.



12) Which of the following is not a fundamental building block of a smart and connected business in the context of Industry 4.0?

1 point

- a. Blueprint of profits
- b. Customer values
- c. Key resources and processes
- d. None of the above

a.  
 b.  
 c.  
 d.



13) What is a major advantage of smart factories?

1 point

- a. Increased production costs
- b. Reduced efficiency
- c. Improvement in quality and safety
- d. Limited product variety

a.  
 b.  
 c.  
 d.



14) How is information technology utilized in smart factories?

1 point

- a. For manual data processing
- b. To avoid data analysis
- c. For smart software applications and to control processes
- d. To limit connectivity and communication

a.  
 b.  
 c.  
 d.



15) Communication, trust and capital with respect to the created values play an important role in IIoT business model.

1 point

- a. False
- b. True

a.  
 b.

