

## Unit 5 - Week 3

## Course outline

How does an NPTEL online course work?

## Week 0

## Week 1

## Week 2

## Week 3

● Lecture 11 : Industry 4.0: Cyber-Physical Systems and Next-Generation Sensors

○ Lecture 12 : Industry 4.0: Collaboration Platform and Product Lifecycle Management

● Lecture 13 : Industry 4.0: Augmented Reality and Virtual Reality

● Lecture 14 : Industry 4.0: Artificial Intelligence

● Lecture 15 : Industry 4.0: Big Data and Advanced Analysis

● Week 3 - Lecture Material

○ Quiz : Assignment 3

○ Week 3 Feedback Form

## Week 4

## Week 5

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## Week 7

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## Week 11

## Week 12

Download Videos

Text Transcripts

Detailed Assignment Solution

Live Interactive Session

## Assignment 3

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

Due on 2020-02-19, 23:59 IST.

1)

PLM maximizes-

- Product revenues and product's value.
- Product associated costs.
- All of the above.
- Only a.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

0 points

2)

Key Performance Indicators (KPIs) are known as metrics. What are they used for?

- Set targets for the company.
- Reduce the product quality.
- Reduce the profit.
- Increase the time.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

1 point

3)

What is structured data?

- Data that can be easily organized.
- Managed by Structured Query Language (SQL) in databases.
- Stored in relational databases.
- All of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point

4)

Variety means in Big data-

- Category of the data such as structured data or unstructured data.
- Speed of generation data.
- Quantity of created data.
- All of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

1 point

5)

What is redundancy mitigation?

- Eliminate repeated data through detection.
- Combine data from various sources.
- Spot incorrect data.
- None of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

1 point

6)

There are three steps in data acquisition. What they are?

- Data collection, Data transmission and Data pre-processing.
- Integration, Clearing and Visualization.
- Data collection, Clearing and Integration.
- None of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

1 point

7)

What is the full form of PMU?

- Pulse measuring unit
- Phasor measuring unit
- Peak measuring unit
- None of these

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
b.

1 point

8)

Smart sensors are defined as the combination of a sensor with \_\_\_\_\_.

- Signal conditioning
- Embedded algorithms
- Digital interface
- All of these

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point

9)

What are the sensor modalities used for Augmented Reality?

- visual
- auditory
- haptic
- all of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point

10)

Which one is the key component of Augmented Reality devices?

- sensors and cameras
- mirror unit
- machines
- none of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
a.

1 point

11)

Artificial intelligence is a \_\_\_\_\_

- Creation of manmade thinking power
- Creation of software having intuitive decision making ability
- Both a and b
- None

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.

1 point

12)

Significance of AI in Agriculture industry

- Crop and soil monitoring
- Precision agriculture
- Supply chain efficiency
- All of the above

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point

13)

How many components are there in PLM to handle the product across its lifecycle-

- Eight.
- Six.
- Nine.
- Ten.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
c.

1 point

14)

Why data analytics is required?

- For appropriate product recommendations.
- Helps to learn about competitors.
- Protect from wrongful decisions.
- All of the above.

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point

15)

Which devices are used for fully-immersive simulations?

- Head mounted display
- Motion detecting devices
- Machine gesture detection device
- Both (a) and (b)

- a.  
 b.  
 c.  
 d.

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
d.

1 point