Question 1

Correct

Mark 2.00 out of 2.00

Flag question

Which task in the step of decomposing the IoT system gathers information about approaches to input validation, authentication, authorization, configuration, and any other areas of the IoT system that are vulnerable?

Select one:

- Identify privileged code.
- Document the security profile. ✔
- Identify entry points.
- Identify trust boundaries.

Refer to curriculum topic: 2.3.1
During the step of decomposing the IoT system, information about the IoT system can be gathered using these tasks:

- **Identify trust boundaries** between trusted components and untrusted components.
- **Identify data flow** between devices, the communications network, and the applications
- **Identify entry points** where data is input into the system
- **Identify privileged code** within the IoT system where secure resources are stored and manipulated.
- **Document the security profile** to include approaches to input validation, authentication, authorization, configuration, and any other areas of the IoT system that are vulnerable.

The correct answer is: Document the security profile.

Question 2

Correct

Mark 2.00 out of 2.00

Flag question

What is the function of the DREAD tool?

Select one:

- It is used to prevent threats from attacking the system.
- It is used to rate threats. ✔
- It is used to identify threats.
- It is used to mitigate threats.

Question **3**

Correct

Mark 2.00 out of 2.00

Flag question

What is the function of the network access layer in the TCP/IP model?

Select one:

- supports communications across diverse networks
- represents data to the user and controls dialogs
- determines the best path through the network
- controls hardware devices and media ✔

Refer to curriculum topic: 2.1.1
The functions of the TCP/IP layers are as follows:

- The network access layer controls hardware devices and media.
- The internet layer determines the best path through the network.
- The application layer represents data to the user and controls dialogs.
- The transport layer supports communications across diverse networks.

The correct answer is: controls hardware devices and media

Question **4**

Correct

Mark 2.00 out of 2.00

Flag question

Which function is provided by the data abstraction level of the IoT reference model?

Select one:

- to transcend multiple applications to include the communication and collaboration required between people and processes
- to interpret information based on the nature of the device data and business needs
- to enable data in motion to be converted to data at rest
- to render data and data storage in ways that enable application development ✔

Refer to curriculum topic: 2.1.2
The data abstraction (aggregation and access) level of the IoT reference model is focused on rendering data and its storage in ways to enable application development.

Question **5**

Correct

Mark 2.00 out of 2.00

Flag question

After threats are rated, what is the next step recommended by the Threat Model Analysis for an IoT system?

Select one:

- Recommend mitigation. ✔
- Decompose the IoT system.
- Identify security objectives.
- Document the IoT system architecture.

Refer to curriculum topic: 2.3.1
After identifying and rating the threats, an organization must determine the mitigation techniques needed for each threat and select the most appropriate technology that would reduce or eliminate the threat.

The correct answer is: Recommend mitigation.

Question **6**

Correct

Mark 2.00 out of 2.00

Flag question

Which document created in the Threat Model Analysis process will describe the IoT system architecture?

Select one:

- the impact of privacy concerns as well as regulation requirements
- the expected availability and guaranteed uptime of the IoT system
- the components of the IoT system at each layer ✔
- the controls that are in place to ensure that evidence is collected on the identity of users accessing and using the IoT system

Refer to curriculum topic: 2.3.1
During the step of documenting the IoT system architecture of the Threat Model Analysis for an IoT System, the documents created should include the following:

- Components of the IoT system at each layer
- The flow of data between components and between layers
- The technologies, protocols, and standards used to implement the IoT system

Question 7

Incorrect

Mark 0.00 out of 2.00

Flag question

Which task in the step of decomposing the IoT system gathers information where secure resources are stored and manipulated to see who has elevated rights?

Select one:

- Identify sensitive data.
- Identify data flow.
- Identify entry points. ✖
- Identify trust boundaries.

Refer to curriculum topic: 2.3.1

During the step of decomposing the IoT system, information about the IoT system can be gathered using these tasks:

- **Identify trust boundaries** between trusted components and untrusted components.
- **Identify data flow** between devices, the communications network, and the applications.
- **Identify entry points** where data is input into the system.
- **Identify sensitive data** within the IoT system where secure resources are stored and manipulated.
- **Document the security profile** to include approaches to input validation, authentication, authorization, configuration, and any other areas of the IoT system that are vulnerable.

The correct answer is: Identify sensitive data.

Question 8

Correct

Mark 2.00 out of 2.00

Flag question

Match the term to the description.

threats	potential dangers to any asset such as data or components of the IoT system ✔
attack surfaces	different points where attackers could get into a system and where they could get data out of the system ✔
threat actors	people or entities who exploit vulnerabilities ✔
vulnerabilities	weaknesses in the IoT system that could be exploited by a threat ✔

Refer to curriculum topic: 2.3.1

Question **9**

Correct

Mark 2.00 out of 2.00

Flag question

Which level of the IoT reference model converts data into information that is suitable for storage and higher level processing?

Select one:

- data accumulation
- data abstraction
- application
- fog computing ✔

Refer to curriculum topic: 2.1.2
The edge (fog) computing (data element analysis and transformation) level of the IoT reference model converts data into information that is suitable for storage and higher level processing.

The correct answer is: fog computing

Question **10**

Incorrect

Mark 0.00 out of 2.00

Flag question

Which domain of the ETSI model includes sensors and gateways connecting to the network through Bluetooth?

Select one:

- M2M
- application ✖
- network
- transport

Refer to curriculum topic: 2.1.2
The M2M device domain is where end devices, such as sensors, actuators, controllers, and gateways, connect to the network through various protocols, such as the IEEE 802.15.4 and Bluetooth.

The correct answer is: M2M

Question 11

Correct

Mark 2.00 out of 2.00

Flag question

What are two benefits of using a layered model to explain protocols and operations? (Choose two.)

Select one or more:

- [x] They assist in protocol design because protocols operating at a specific layer have defined information that they act upon and a defined interface to the layers above and below. ✔
- [ ] They provide an exclusive language to describe networking functions and capabilities.
- [ ] They describe which functions occur at each layer of the model to encourage the removal of industry standardization.
- [x] They prevent technology or capability changes in one layer from affecting other layers above and below. ✔
- [ ] They limit competition because products from different vendors will not work together.

Refer to curriculum topic: 2.1.1
There are many benefits to using a layered model to explain protocols and operations:

- They assist in protocol design because protocols operating at a specific layer have defined information that they act upon and a defined interface to the layers above and below.
- They foster competition because products from different vendors can work together.
- They prevent technology or capability changes in one layer from affecting other layers above and below.
- They provide a common language to describe networking functions and capabilities.

The correct answers are: They assist in protocol design because protocols operating at a specific layer have defined information that they act upon and a defined interface to the layers above and below., They prevent technology or capability changes in one layer from affecting other layers above and below.

Question 12

Correct

Mark 2.00 out of 2.00

Flag question

What are the three broad requirements specified by the CIA security triad?

Select one or more:

- [x] Data must be protected from theft and unauthorized alteration or destruction. ✔
- [ ] Data must be protected from firmware alteration.
- [ ] Data should never leave the location from which it was gathered.
- [ ] Data must be retained for an appropriate amount of time before it can be deleted.
- [x] Data must be protected from unauthorized access. ✔
- [x] Data must always be acessible by the people who need to use it when they need to use it. ✔

Question 13

Correct

Mark 2.00 out of 2.00

Flag question

Which three types of documents should be included when documenting the IoT system architecture using the Threat Model Analysis for an IoT System? (Choose three.)

Select one or more:

- [x] the technologies, protocols, and standards used to implement the IoT system ✔
- [ ] the financial risks of the various aspects of the IoT system
- [ ] any possible impact on the reputation of the organization if the IoT system is attacked
- [x] the flow of data between components and between layers ✔
- [x] components of the IoT system at each layer ✔
- [ ] the impact of privacy concerns as well as regulation requirements

Refer to curriculum topic: 2.3.1
During the step of documenting the IoT system architecture of the Threat Model Analysis for an IoT System, the documents created should include the following:

- Components of the IoT system at each layer
- The flow of data between components and between layers
- The technologies, protocols, and standards used to implement the IoT system

The correct answers are: components of the IoT system at each layer, the flow of data between components and between layers, the technologies, protocols, and standards used to implement the IoT system

Question 14

Correct

Mark 2.00 out of 2.00

Flag question

What is the primary focus of data management in the IoT realm?

Select one:

- ( ) which data protocols are used
- ( ) what applications are being used
- ( ) how things are connected to the networks
- (•) when and where data is processed ✔

cloud.

The correct answer is: when and where data is processed

Question 15

Correct

Mark 2.00 out of 2.00

Flag question

In the IoT reference model, at which layer or layers of the model is security implemented?

Select one:

- physical devices & controllers level
- application level
- all levels of the IoT reference model ✔
- connectivity level

Refer to curriculum topic: 2.1.2
Security must permeate all the levels of the IoT reference model.

The correct answer is: all levels of the IoT reference model

Finish review

◄ Chapter 2 Terms and Concepts Practice

Jump to...

Read Chapter 3: The IoT Device Layer Attack Surface ►