1. If you have a program language that is largely procedural, which architecture style are you likely to use?　**1 point**

   ○ Pipe and Filter

   ○ Event Based

   ⦿ Main Program and Subroutine

   ○ Process Control

2. What are some **disadvantages** of Data-Centric Architecture? Select the **2 correct answers**.　**1 point**

   ☑ The existing data schema is difficult to change.

   ☐ Data integrity can be compromised by having it widely accessible.

   ☐ Considerable overhead for data transfer between data accessors.

   ☑ The system becomes heavily reliant on the central data.

3. Which of these principles is **NOT** characteristic of a layered system?　**1 point**

   ○ separation of concerns

   ⦿ tight coupling

   ○ abstraction

   ○ sandboxing

4. Which of the following is a common messaging pattern in client/server relationships?　**1 point**

○ solicit-response

○ one-way

○ handshake

◉ request-response

5. How does an n-Tier architecture differ from a layered architecture?　　**1 point**

○ A layered architecture is limited to three layers, whereas an n-tier can go to as many as are needed

◉ The interaction between tiers in an n-Tier architecture is strictly message based

○ Layered architectures are more loosely coupled

○ n-Tier architectures are only found on the Internet

6. Which of these is **NOT** a possible use for Interpreters?　　**1 point**

◉ Enhancing resource usage efficiency

○ Allowing developers to develop add-ons in a common language

○ Giving end users the opportunity to program scripts or macros

○ Abstracting away platform details

7. Which of these is an advantage of event-based architecture?　　**1 point**

○ All interactions happen synchronously

○ Events trigger responses in a predictable manner

◉ Event generators and event consumers are loosely coupled

○ Events are processed with more efficiency

8. There is a common technique that is used in event architectures to indicate whether or not a particular resource is being accessed by another process at that moment. What is it called?

1 point

- ◯ toggle
- ◯ occupied
- ⦿ semaphore
- ◯ access switch

9. Beverly is asked to develop a way to control a process. There is a device to measure the height of liquid in a tank, and when the tank is almost full, a pump turns on to empty the tank. Which type of process control architecture will she use?

1 point

- ◯ Feedforward Loop
- ◯ Open Loop
- ⦿ Feedback Loop
- ◯ Shooting Control

10. What are the steps in complex, process control system architectures, such as self-driving cars?

1 point

- ◯ read, plan, deliver
- ◯ analyze, model, plan, act
- ⦿ monitor, analyze, plan, execute
- ◯ sense, interpret, model, act

11. Which of these applications would be best suited to a procedural programming paradigm, such as the Main Program and Subroutine architecture?

1 point

- ○ A self-driving car
- ○ A user interface, such as a simple poker game
- ○ Accessing data from a repository
- ⦿ Analyzing data and producing reports

12. Which of these is **NOT** an advantage of pipe and filter architectures?

1 point

- ⦿ Data transformation is computationally efficient
- ○ Complex transformations can be broken down into subtasks
- ○ Filters are loosely coupled
- ○ Filters can be reused

Coursera Honor Code Learn more

☑ I, **Wei Wei**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

Submit   Save draft

👍 Like   👎 Dislike   🏳 Report an issue