

 Online Exams

Sri Lanka Institute of Information Technology

Question 1
Not yet answered
Marked out of 2.00

Which of the following is NOT a design principle of microservices?

Select one:

- a. Align each service with business requirements
- b. Having fine grained services with limited scope
- c. Having single responsibility for each service
- d. Having services that have broad scope



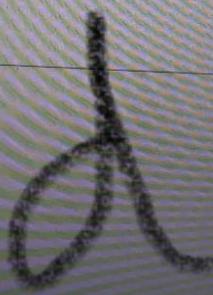
Online Exams

Sri Lanka Institute of Information Technology

Suppose an organization is managing 50 web services related to healthcare industry. Which of the following is NOT a reason to involve in the governance of the services?

Select one:

- a. Show who is responsible for managing each service
- b. Managing different versions of web services
- c. Maintaining documentation of web services
- d. Integrating multiple services from different platforms
- e. Monitor the usage and any errors caused by the services





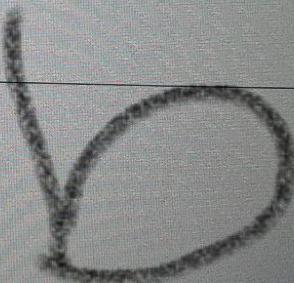
Online Exams

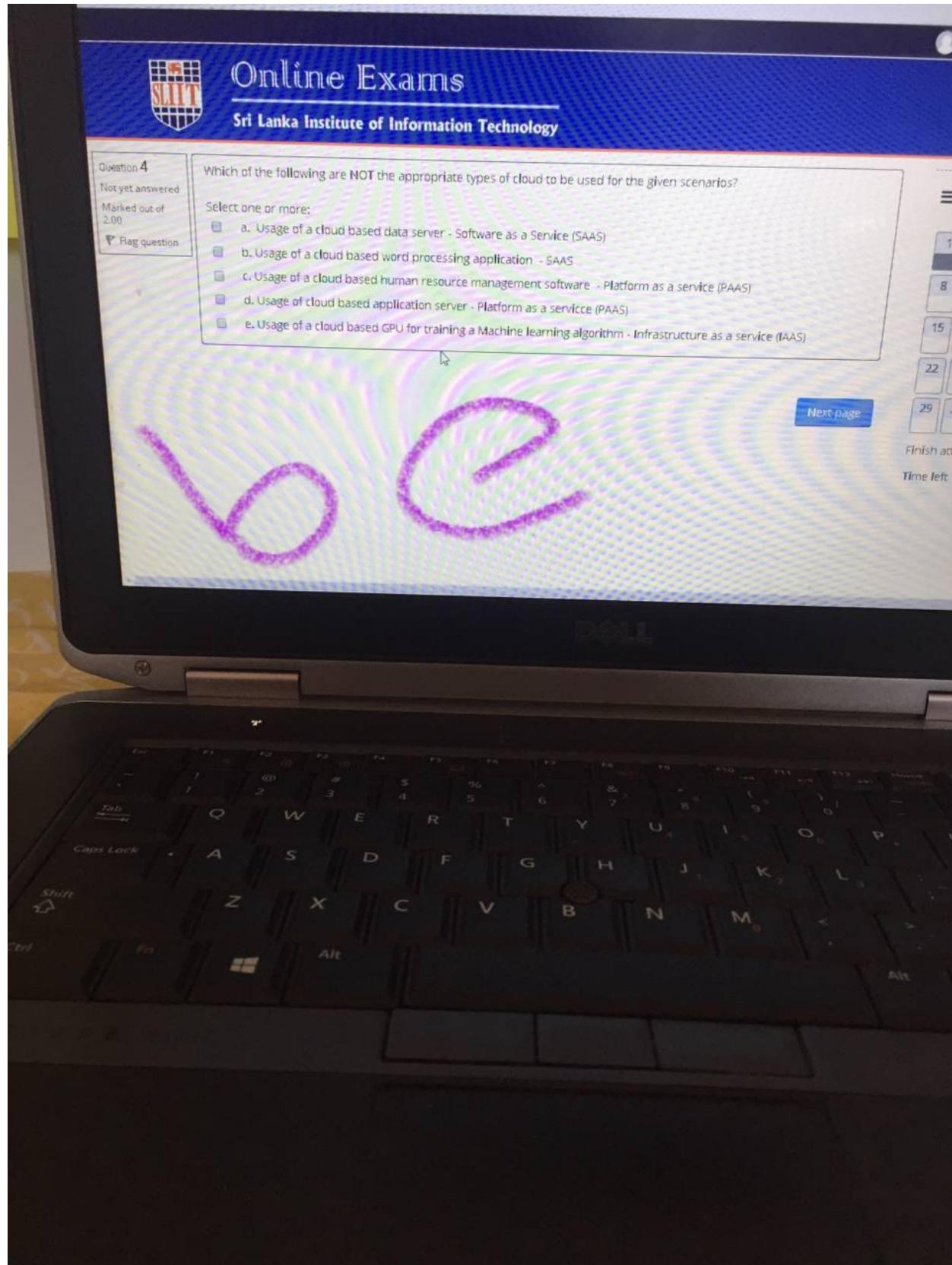
Sri Lanka Institute of Information Technology

Which of the following is NOT a potential application of JMS?

Select one:

- a. A highly scalable enterprise application with multiple components implemented with different technologies
- b. A client server intranet java application
- c. A monitoring application that allows asynchronous messaging
- d. An online message forum





Moodle

Online Exams

Sri Lanka Institute of Information Technology

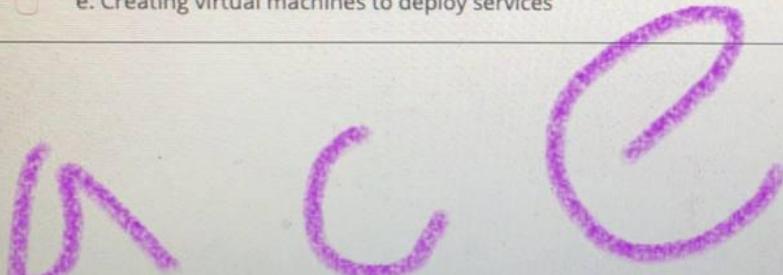
What are the uses of Kubernetes or any other microservices orchestration framework in the microservices architecture?

Select one or more:

- a. Managing the data storage of the application
- b. Self healing or restarting service instances if there's a service failure
- c. Automatically scaling up and down the services, based on user demand
- d. Version control of services
- e. Creating virtual machines to deploy services

Next

MacBook Pro



Moodle

Sri Lanka Institute of Information Technology

Question 5
Not yet answered
Marked out of 20.00
Flag question

a. Which of the following scenario refer to the 'security', 'reliability', 'accessibility' and 'heterogeneity' related challenges in developing an application. Indicate the most appropriate challenge for each scenario. (2 marks)

- Making sure that a mobile app is accessible via multiple Operating systems and mobile platforms.
- Ensuring the network communication cannot be intercepted.
- Making sure that an application does not crash in the middle of a transaction.
- Making sure an application is accessible by a large number of users without any delay or hindrance.

b. Name the most appropriate Software Architectural style (out of Layered architecture, Component based, Event based, Data Centric) for each of the following application. (2 marks)

- A remote monitoring system for Mobile base stations
- An app for taxi ordering
- A legal document sharing system
- A cloud based Examination system.

c. Name the most appropriate System architectural style (out of Client-server, Peer to Peer, Hybrid) for each of the following application. (3 marks)

- A robust file sharing system with millions of potential users.
- A social media platform where the content is stored in central data centers.
- A robust audio streaming platform with a relatively small number of users and where each node has the capability to stream data.

d. Identify the most appropriate Distributed communication technology (out of Java RMI polling, Java RMI remote callback, Socket programming, Java RMI blocking) for each of the following applications. (4 marks)

- Obtain the temperature from remote weather stations periodically.
- Get notified by a remote mobile client when a share price of a particular company goes up over a certain value.
- Authenticating a mobile app user using the username and password.
- Fire alarm system that is capable of sending/receiving data yet does not have the JVM installed.

e. Name the most appropriate Enterprise Java Bean (EJB) type (out of Entity Beans, Stateless session beans, Stateful session beans, Message driven beans) for each of the following application. (4 marks)

- Storing the details of students in a student management system.
- Storing the shopping cart details in an eCommerce web site.
- Counting the number of clients connected to an eCommerce web site.
- Passing an asynchronous message from a customer to an email service in an eCommerce system.

f. Give three advantages of Asynchronous message queues when developing large scales distributed systems. (3 marks)

g. What's the most appropriate message format for each of the following application (out of Binary message formats and Open message formats). (2 marks)?

- An ecommerce system where it needs to collaborate with third party systems developed using heterogeneous technologies.
- A intranet content streaming application where the performance is paramount.

SLIT

Online Exams

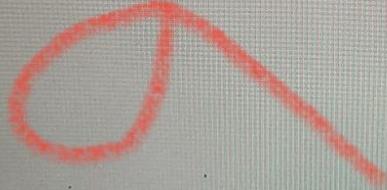
Sri Lanka Institute of Information Technology

Question 1
Not yet answered
Marked out of 2.00
Flag question

Which of the following is NOT an advantage of the event based architecture?

Select one:

- a. Tight coupling between components
- b. High scalability
- c. Facilitate publisher subscriber messaging
- d. Asynchronous communication



← → ✘ C | O | E



Online Exams

Sri Lanka Institute of Information Technology

Question 5

Not yet answered
Marked out of
2.00

Flag question

Which of the following is the valid reason for having a two phase or three phase commit instead of one phase commits in a distributed system?

Select one:

- a. In one phase commit, there's no way to allow auto scaling
- b. In one phase commit, there's no way for the coordinator to know whether a process has failed
- c. In one phase commit, there's no way to manage load balancing
- d. In one phase commit, there's no way to allow secure messaging

Q



4
answered
out of
question

What is the main reason for using the same DatagramSocket class both at the client and server side of a UDP application?

Select one or more:

- a. The usage of the same socket class can make the implementation simpler
- b. The same socket class is used to handle multiple connections simultaneously
- c. The same socket class is used to ensure secure communication
- d. There's no continuous connection, so the identical sockets can be used to facilitate communication at either end

Moodle

← → X C | ⓘ | A

 Online Exams
Sri Lanka Institute of Information Technology

Question 15
Not yet answered
Marked out of 2.00
Flag question

Which of the following is NOT a correct statement with respect to failure classification?

Select one:

- a. Arbitrarily failures refer to scenarios where the server responds with arbitrary responses
- b. Response failure is where a server may not respond at all
- c. Omission failures is where the server fails to respond
- d. Timing failures refer to scenarios where the server does not respond within an accepted time interval
- e. Crash failure refers to scenarios where the server halts but it works correctly until it halts



Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 6

Not yet answered

Marked out of 0

Flag question

Which of the following are NOT appropriate REST urls and HTTP methods for the given operations?

Select one or more:

- a. Get user details - HTTP POST - <http://wso2.com/general/dbusers/user/1>
- b. Add user - HTTP GET - <http://wso2.com/general/dbusers/user/1/sam>
- c. Add user - HTTP POST - <http://wso2.com/general/dbusers/user/1/sam>
- d. Update user - HTTP PUT - <http://wso2.com/general/dbusers/user/1/mimal>
- e. Remove user - HTTP DELETE - <http://wso2.com/general/dbusers/user/1>

A large handwritten mark 'Alo' is written across the bottom right of the page.

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 8

Not yet answered

Marked out of 2.00

Flag question

Which of the following is NOT a component of the JMS specification?

Select one:

- a. Message consumer
- b. JMS Session
- c. Reduce the scalability of applications
- d. Message registry
- e. Message Producer

C

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 10

Not yet answered

Marked out of 2.00

Flag question

Suppose there is a service that needs to query the stock price of a company from multiple stock services deployed around the world at different stock exchanges. What is the enterprise integration pattern that is suitable for this?

Select one:

- a. Aggregator pattern
- b. Polling pattern
- c. Process manager pattern
- d. None of the above
- e. Enricher pattern

Quiz navigation

1	2	3	4	5
9	10	11	12	13
17	18	19	20	21
25	26	27	28	29
36				

Finish attempt ...

Time left 1:41:08

Next page





Online Exams

Sri Lanka Institute of Information Technology

Question 15

Not yet answered
Marked out of
2.00

Flag question

In a student management system, some student related operations may take a long time and therefore need to be handled in asynchronous mode. Which of the following beans would be appropriate for that?

Select one:

- a. StudentOperations - Message Driven bean
- b. StudentManagement - Stateless session bean
- c. StudentAdministration - Stateful session bean
- d. Student - Entity bean

A

Online Exams

Sri Lanka Institute of Information Technology

Which of the following definition is NOT correct regarding cloud computing?

Select one:

- a. Over-provisioning - Allocating more resources in the cloud than required
- b. Under-provisioning - Not having enough resources in the cloud
- c. Multi-tenancy - Having multiple users sharing the same set of resources in the cloud, without interfering each other
- d. Horizontal scaling - Adding more CPU or memory to an existing virtual server

Next page

MacBook Pro

Spur

```
<tr>
<td><xsl:value-of select="title" /></td>
<td><xsl:value-of select="artist" /></td>
<td><xsl:value-of select="year" /></td>
</tr>
<xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

e. In the cloud based Exam management system, assume that there are select, select all, create, update and delete remote operations to be performed on an Examination object. For each examination, the subject code, subject name and exam type (numeric value of 1 or 2) are maintained. Write sample RESTful service URLs that can be used to perform these operations. Indicate the appropriate HTTP method to use with the URL. (3 marks)

f. Name two advantages of the Microservices architecture in comparison of the Monolithic systems. (2 marks)

g. Which of the following are examples of Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) in Cloud computing? (3 marks)

i. A high end virtual machine with a GPU (graphics processing unit) being obtained from the cloud to train a Machine learning model.

ii. A cloud based online student management system being used

iii. An IOT (Internet of things) integration platform that is hosted in the cloud being used to build an IOT application

h. Select the most appropriate cloud architecture for each of the following application, out of Private cloud, Public cloud and Hybrid cloud. (3 marks)

i. Hosting banking data in a virtualized environment.

ii. Using the cheapest possible cloud architecture to manage an enterprise application

iii. Continue to use an organization's existing in-house data-centers, without investing to buy additional hardware when there's additional peak-hour traffic.

Push

```
<xs:complexType>
</xs:element>
```

```
<tr>
<td><xsl:value-of select="title" /></td>
<td><xsl:value-of select="artist" /></td>
<td><xsl:value-of select="year" /></td>
</tr>
<xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

e. In the cloud based Exam management system, assume that there are select, select all, create, update and delete remote operations to be performed on an Examination object. For each examination, the subject code, subject name and exam type (numeric value of 1 or 2) are maintained. Write sample RESTful service URLs that can be used to perform these operations. Indicate the appropriate HTTP method to use with the URL. (3 marks)

f. Name two advantages of the Microservices architecture in comparison of the Monolithic systems. (2 marks)

g. Which of the following are examples of Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) in Cloud computing? (3 marks)

i. A high end virtual machine with a GPU (graphics processing unit) being obtained from the cloud to train a Machine learning model.

ii. A cloud based online student management system being used

iii. An IOT (Internet of things) integration platform that is hosted in the cloud being used to build an IOT application

h. Select the most appropriate cloud architecture for each of the following application, out of Private cloud, Public cloud and Hybrid cloud. (3 marks)

i. Hosting banking data in a virtualized environment.

ii. Using the cheapest possible cloud architecture to manage an enterprise application

iii. Continue to use an organization's existing in-house data-centers, without investing to buy additional hardware when there's additional peak-hour traffic.

```
<xs:complexType>
</xs:element>
```

Pub P

```
<td><xsl:value-of select="title" /></td>
<td><xsl:value-of select="artist" /></td>
<td><xsl:value-of select="year" /></td>
</tr>
<xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

e. In the cloud based Exam management system, assume that there are select, select all, create, update and delete remote operations to be performed on an Examination object. For each examination, the subject code, subject name and exam type (numeric value of 1 or 2) are maintained. Write sample RESTful service URLs that can be used to perform these operations. Indicate the appropriate HTTP method to use with the URL. (3 marks)

f. Name two advantages of the Microservices architecture in comparison of the Monolithic systems. (2 marks)

g. Which of the following are examples of Software as a Service (SaaS), Platform as a Service (PAAS) and Infrastructure as a Service (IAAS) in Cloud computing? (3 marks)

i. A high end virtual machine with a GPU (graphics processing unit) being obtained from the cloud to train a Machine learning model.

ii. A cloud based online student management system being used

iii. An IOT (Internet of things) integration platform that is hosted in the cloud being used to build an IOT application

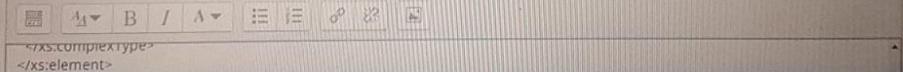
h. Select the most appropriate cloud architecture for each of the following application, out of Private cloud, Public cloud and Hybrid cloud. (3 marks)

i. Hosting banking data in a virtualized environment.

ii. Using the cheapest possible cloud architecture to manage an enterprise application

iii. Continue to use an organization's existing in-house data-centers, without investing to buy additional hardware when there's additional peak-hour traffic.

h



a

Online Exams

Sri Lanka Institute of Information Technology

What of the following is NOT an advantage of having a separate business logic tier in a share market system?

Select one:

- a. Ability to handle miscalculations of computation in servers due to electro magnetic radiation.
- b. Load balancing depending on the number of transactions per second.
- c. Ability to handle abrupt server failures.
- d. Parallelize the computation of large datasets
- e. Sequentially compute a complex scientific computation

Next page



Online Exams

Sri Lanka Institute of Information Technology

Which of the following technologies has NOT been greatly advanced with the advent of SOA and web services?

Select one:

- a. Messaging middleware
- b. Web APIs
- c. Cloud computing
- d. Supercomputers

8

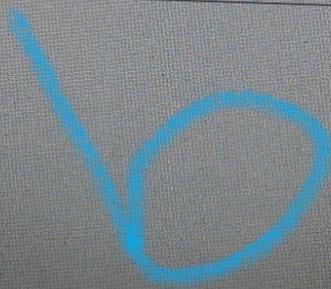
Online Exams

Sri Lanka Institute of Information Technology

What is the reason for using Inputstream/Outputstream classes in Java for socket communication?

Select one:

- a. They are used to ensure secure communication
- b. As reading from/writing to sockets is similar to reading from/writing to a file. Both as input/output operations.
- c. These classes are used to allow peer to peer communication
- d. These classes are used to facilitate multithreading



Online Exams

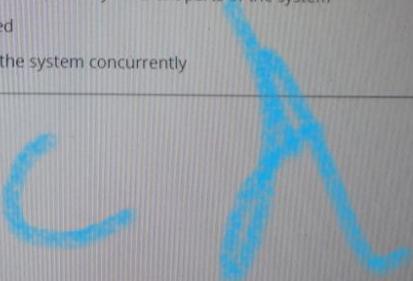
Sri Lanka Institute of Information Technology

Question 19
Not yet answered
Marked out of 2.00
Flag question

Which of the following are NOT examples of heterogeneity in distributed systems?

Select one or more:

- a. Multiple hardware platforms being used by the servers
- b. Multiple Operating systems being used by the clients
- c. Multiple encryption algorithms used by different parts of the system
- d. Messages being encrypted
- e. Multiple users accessing the system concurrently



Moodle

Online Exams

Sri Lanka Institute of Information Technology

ed

n

Which of the following are NOT a result of the prevalence of Distributed systems?

Select one or more:

- a. Online job listing web sites
- b. Postal service being used to send utility bills
- c. Mobile app based taxi services
- d. Outsourcing of the IT projects to global teams.
- e. Traditional pharmacies that dispense medicine

✓ ✓

Which of the following is NOT a reason to do enterprise integration?

Select one:

- a. Having a simple homogeneous client server application that is unlikely to change in the future
- b. Need to integrated legacy systems with newer products and APIs
- c. Have to use products from multiple vendors
- d. Diverse business requirements that may change in the future
- e. Need to support multiple message formats

C



Question 21

Not yet answered

Marked out of
2.00

 Flag question

What is the purpose of using namespaces in XML?

Select one:

- a. Enable checking for well-formedness
- b. Enable transforming the xml into an html
- c. Enable checking for validity
- d. Enable unique identification of each xml element

d





Online Exams

Sri Lanka Institute of Information Technology

26

answered
out of
question

Which of the following are NOT applications of Asynchronous calls (both local and remote)?

Select one or more:

- a. Execute a function that doesn't consume much computational time, to create a thread and return the control immediately back to the main thread in the server
- b. Having remote Asynchronous calls in a web application to reduce the amount of data exchanged and to improve user experience
- c. Block the client application till a remote validation is made
- d. Having local asynchronous calls to maintain UI responsiveness
- e. Reduce the waiting time of a client application due to a long running database read.

C C @

Next page

Moodle

Online Exams

Sri Lanka Institute of Information Technology

32
Answered
out of
Question

Which of the following is NOT a strength of RMI?

Select one:

- a. Can use the object oriented principles and design patterns in Java
- b. Language interoperability
- c. Platform interoperability
- d. Enables the secure access of system resources through policy files

6



Online Exams

Sri Lanka Institute of Information Technology

Question 29

Not yet answered

Marked out of
2.00

Flag question

What are the usages of Docker or other container frameworks in the Microservices architecture?

Select one or more:

- a. Docker facilitates the discovery of services
- b. Docker allows a virtual machine to be run when deploying a service
- c. Docker allows a service to be deployed independently of other services
- d. Docker allows the services to be scaled up or down independently

[Next page](#)

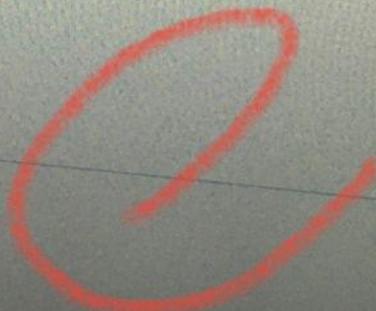
Online Exams

Sri Lanka Institute of Information Technology

Which of the following are NOT characteristics of SOA?

Select one or more:

- a. Uses vendor specific message formats
- b. Composable
- c. Reusable
- d. Standard based
- e. Tight coupling



Moodle

Sri Lanka Institute of Information Technology

Question 1
Not yet answered
Marked out of 2.00
Flag question

Which of the following is the correct JSON file for the given xml segment?

```
<course id="1">
    <lecturer>
        <firstname> H.T. </firstname>
        <lastname> Shen </lastname>
    </lecturer>
    <title>SOA</title>
    <code>INFS3204</code>
    <code2>INFS3204</code2>
</course>
```

Select one:

a.

```
{
    "@id": "1",
    "lecturer": {
        "firstname": "H.T.",
        "lastname": "Shen"
    },
    "title": "SOA"
}
```

SLIIT Online Exams

Sri Lanka Institute of Information Technology

Question 1
Not yet answered
Marked out of 20.00
Flag question

a. Write a sample XML file for the following XML schema. (3 marks)

```
<?xml version="1.0" encoding="UTF-8"?>
<xss:schema xmlns:xss="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
    <xss:element name="CATALOG">
        <xss:complexType>
            <xss:sequence>
                <xss:element ref="CD" maxOccurs="unbounded"/>
            </xss:sequence>
        </xss:complexType>
    </xss:element>
    <xss:element name="CD">
        <xss:complexType>
            <xss:sequence>
                <xss:element name="TITLE" type="xs:string"/>
                <xss:element ref="ARTIST"/>
                <xss:element name="COUNTRY" type="xs:string"/>
                <xss:element name="COMPANY" type="xs:string"/>
                <xss:element name="PRICE" type="xs:string"/>
                <xss:element name="YEAR" type="xs:string"/>
            </xss:sequence>
            <xss:attribute name="id" type="xs:string"/>
        </xss:complexType>
    </xss:element>
    <xss:element name="ARTIST">
        <xss:complexType>
            <xss:sequence>
                <xss:element name="FIRST_NAME" type="xs:string"/>
                <xss:element name="LAST_NAME" type="xs:string"/>
            </xss:sequence>
        </xss:complexType>
    </xss:element>
</xss:schema>
```

b. Write a sample JSON object to represent the sample xml file that you wrote in part a. (2 marks)

c. Name two applications of XSL transformations. (2 marks)

Finish at: 17:25 21:25

Time left: 00:00

ASUS



Online Exams

Sri Lanka Institute of Information Technology

Question 4

Not yet answered

Marked out of
2.00

Flag question

Which of the following are NOT the appropriate types of cloud to be used for the given scenarios?

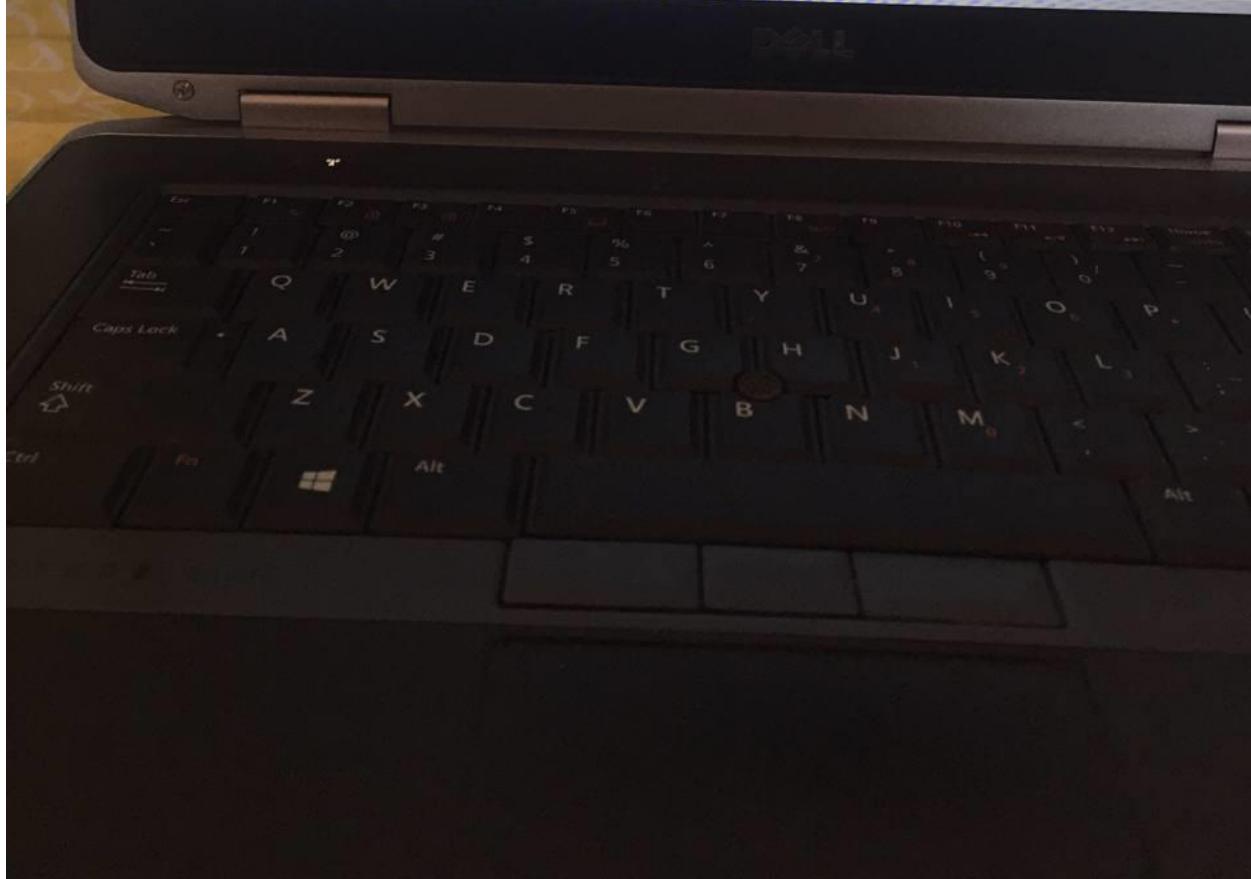
Select one or more:

- a. Usage of a cloud based data server - Software as a Service (SaaS)
- b. Usage of a cloud based word processing application - SaaS
- c. Usage of a cloud based human resource management software - Platform as a service (PaaS)
- d. Usage of cloud based application server - Platform as a service (PaaS)
- e. Usage of a cloud based GPU for training a Machine learning algorithm - Infrastructure as a service (IaaS)

Next page

Finish att

Time left: 1



Moodle

Online Exams

Sri Lanka Institute of Information Technology

What are the uses of Kubernetes or any other microservices orchestration framework in the microservices architecture?

Select one or more:

- a. Managing the data storage of the application
- b. Self healing or restarting service instances if there's a service failure
- c. Automatically scaling up and down the services, based on user demand
- d. Version control of services
- e. Creating virtual machines to deploy services

Next

MacBook Pro

Question 5
Not yet answered
Marked out of 20.00
 Flag question:

a. Which of the following scenario refer to the 'security', 'reliability', 'accessibility' and 'heterogeneity' related challenges in developing an application. Indicate the most appropriate challenge for each scenario. (2 marks)

- i. Making sure that a mobile app is accessible via multiple Operating systems and mobile platforms. ↗
- ii. Ensuring the the network communication cannot be intercepted. ↘
- iii. Making sure that an application does not crash in the middle of a transaction. ↙
- iv. Making sure an application is accessible by a large number of users without any delay or hindrance. ↘

b. Name the most appropriate Software Architectural style (out of Layered architecture, Component based, Event based, Data Centric) for each of the following application. (2 marks)

- i. A remote monitoring system for Mobile base stations ↘
- ii. An app for taxi ordering ↗
- iii. A legal document sharing system ↙
- iv. A cloud based Examination system. ↘

c. Name the most appropriate System architectural style (out of Client-server, Peer to Peer, Hybrid) for each of the following application. (3 marks)

- i. A robust file sharing system with millions of potential users ↗
- ii. A social media platform where the content is stored in central data centers. ↘
- iii. A robust audio streaming platform with a relatively small number of users and where each node has the capability to stream data. ↗

d. Identify the most appropriate Distributed communication technology (out of Java RMI polling, Java RMI remote callback, Socket programming, Java RMIS blocking) for each of the following applications. (4 marks)

- i. Obtain the temperature from remote weather stations periodically. ↗
- ii. Get notified by a remote mobile client when a share price of a particular company goes up over a certain value. ↗
- iii. Authenticating a mobile app user using the username and password. ↗
- iv. Fire alarm system that is capable of sending/receiving data yet does not have the JVM installed. ↗

e. Name the most appropriate Enterprise Java Bean (EJB) type (out of Entity Beans, Stateless session beans, Stateful session beans, Message driven beans) for each of the following application. (4 marks)

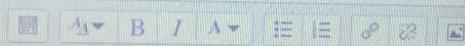
- i. Storing the details of students in a student management system. ↗
- ii. Storing the shopping cart details in an eCommerce web site. ↗
- iii. Counting the number of clients connected to an eCommerce web site. ↗
- iv. Passing an asynchronous message from a customer to an email service in an eCommerce system. ↗

f. Give three advantages of Asynchronous message queues when developing large scales distributed systems. (3 marks)

g. What's the most appropriate message format for each of the following application (out of Binary message formats and Open message formats). (2 marks)?

- i. An ecommerce system where it needs to collaborate with third party systems developed using heterogeneous technologies.
- ii. Intranet content streaming application where the performance is paramount.

- ii. Get notified by a remote mobile client when a share price of a particular company goes up over a certain value.
- iii. Authenticating a mobile app user using the username and password
- iv. Fire alarm system that is capable of sending/receiving data yet does not have the JVM installed.
- e. Name the most appropriate Enterprise Java Bean (EJB) type (out of Entity Beans, Stateless session beans, Stateful session beans, Message driven beans) for each of the following application. (4 marks)
- i. Storing the details of students in a student management system.
- ii. Storing the shopping cart details in an eCommerce web site.
- iii. Counting the number of clients connected to an eCommerce web site.
- iv. Passing an asynchronous message from a customer to an email service in an eCommerce system
- f. Give three advantages of Asynchronous message queues when developing large scales distributed systems. (3 marks)
- g. What's the most appropriate message format for each of the following application (out of Binary message formats and Open message formats). (2 marks) ?
- i. An ecommerce system where it needs to collaborate with third party systems developed using heterogeneous technologies.
- ii. A intranet content streaming application where the performance is paramount.



- a. Which of the following scenario refer to the 'security', 'reliability', 'accessibility' and 'heterogeneity' related challenges in developing an application. Indicate the most appropriate challenge for each scenario. (2 marks)
- i. Making sure that a mobile app is accessible via multiple Operating systems and mobile platforms.
- ii. Ensuring the network communication cannot be intercepted.
- iii. Making sure that an application does not crash in the middle of a transaction.
- iv. Making sure an application is accessible by a large number of users without any delay or hindrance.



Online Exams

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of
2.00

Flag question

Which of the following is NOT an advantage of the event based architecture?

Select one:

- a. Tight coupling between components
- b. High scalability
- c. Facilitate publisher subscriber messaging
- d. Asynchronous communication



Online Exams

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of
2.00

Flag question

Which of the following is NOT an advantage of the event based architecture?

Select one:

- a. Tight coupling between components
- b. High scalability
- c. Facilitate publisher subscriber messaging
- d. Asynchronous communication



Online Exams

Sri Lanka Institute of Information Technology

Question 5

Not yet answered
Marked out of
2.00

Flag question

Which of the following is the valid reason for having a two phase or three phase commit instead of one phase commits in a distributed system?

Select one:

- a. In one phase commit, there's no way to allow auto scaling
- b. In one phase commit, there's no way for the coordinator to know whether a process has failed
- c. In one phase commit, there's no way to manage load balancing
- d. In one phase commit, there's no way to allow secure messaging

SLIIT

Online Exams

Sri Lanka Institute of Information Technology

4 answered out of 4 question

What is the main reason for using the same DatagramSocket class both at the client and server side of a UDP application?

Select one or more:

- a. The usage of the same socket class can make the implementation simpler
- b. The same socket class is used to handle multiple connections simultaneously
- c. The same socket class is used to ensure secure communication
- d. There's no continuous connection, so the identical sockets can be used to facilitate communication at either end

SLIIT

Online Exams

Sri Lanka Institute of Information Technology

Question 5
Not yet answered
Marked out of 2.00
 Flag question

What of the following is the correct XSD definition for the given element?

```
<lecturer>
  <name>Perera</name>
  <grade>senior lecturer</grade>
</lecturer>
```

Select one:

- a. `<x:element name="lecturer">
 <x:complexType>
 <x:element name="name" type="x:string"/>
 <x:element name="grade" type="x:string"/>
 </x:complexType>
</x:element>`
- b. `<x:element name="lecturer">
 <x:complexType>
 <x:sequence>
 <x:element name="name" type="x:string"/>
 <x:element name="grade" type="x:string"/>
 </x:sequence>
 </x:complexType>
</x:element>`
- c. `<x:element name="lecturer">
 <x:complexType>
 <x:sequence>`

Quiz navigation

1	2	3	4
9	10	11	12
17	18	19	20
25	26	27	28

Finish attempt ...
Time left 1:46:14

Moodle

← → X C | ⓘ | A

 Online Exams
Sri Lanka Institute of Information Technology

Question 15
Not yet answered
Marked out of 2.00
Flag question

Which of the following is NOT a correct statement with respect to failure classification?

Select one:

- a. Arbitrary failures refer to scenarios where the server responds with arbitrary responses
- b. Response failure is where a server may not respond at all
- c. Omission failures is where the server fails to respond
- d. Timing failures refer to scenarios where the server does not respond within an accepted time interval
- e. Crash failure refers to scenarios where the server halts but it works correct until it halts

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 6

Not yet answered

Marked out of 2.00

Flag question

Which of the following are NOT appropriate REST urls and HTTP methods for the given operations?

Select one or more:

- a. Get user details - HTTP POST - <http://wso2.com/general/dbusers/user/1>
- b. Add user - HTTP GET - <http://wso2.com/general/dbusers/user/1/sam>
- c. Add user - HTTP POST - <http://wso2.com/general/dbusers/user/1/sam>
- d. Update user - HTTP PUT - <http://wso2.com/general/dbusers/user/1/mimal>
- e. Remove user - HTTP DELETE - <http://wso2.com/general/dbusers/user/1>

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 9

Not yet answered

Marked out of 2.00

Flag question

Which of the following is NOT a reason to do enterprise integration?

Select one:

- a. Need to support multiple message formats
- b. Having a simple homogeneous client server application that is unlikely to change in the future
- c. Need to integrate legacy systems with newer products and APIs
- d. Have to use products from multiple vendors
- e. Diverse business requirements that may change in the future

1
9
17
25

Next page

Finish

Time

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 8

Not yet answered

Marked out of 2.00

Flag question

Which of the following is NOT a component of the JMS specification?

Select one:

- a. Message consumer
- b. JMS Session
- c. Reduce the scalability of applications
- d. Message registry
- e. Message Producer

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 10

Not yet answered

Marked out of 2.00

Flag question

Suppose there is a service that needs to query the stock price of a company from multiple stock services deployed around the world at different stock exchanges. What is the enterprise integration pattern that is suitable for this?

Select one:

- a. Aggregator pattern
- b. Polling pattern
- c. Process manager pattern
- d. None of the above
- e. Enricher pattern

Quiz navigation

1	2	3	4	5
9	10	11	12	13
17	18	19	20	21
25	26	27	28	29
30				

Finish attempt ...

Time left 1:41:08

Next page

Online Exams

Sri Lanka Institute of Information Technology

Question 5

Not yet answered

Marked out of 2.00

Flag question

Which of the following instance will throw a validation error, provided the given schema definition segment?
`<xs:element name="StockPurchase" minOccurs="1" maxOccurs="10"/>`

Select one or more:

- a. 12 StockPurchase elements in the xml file that uses the above schema definition segment
- b. 10 StockPurchase elements in the xml file that uses the above schema definition segment
- c. 7 StockPurchase elements in the xml file that uses the above schema definition segment
- d. No StockPurchase elements in the xml file that uses the above schema definition segment
- e. 1 StockPurchase element in the xml file that uses the above schema definition segment

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 11

Not yet answered

Marked out of 2.00

Flag question

In a TCP application, why is multithreading necessary?

Select one:

- a. To allow the server to simultaneously communicate with multiple clients
- b. To enable fault tolerance
- c. To enable secure communication
- d. To ensure the reliability in communication

Next page

Quiz navigation

1	2	3
9	10	11
17	18	19
25	26	27

Finish attempt ...

Time left 1:39:55



Online Exams

Sri Lanka Institute of Information Technology

Question 15

Not yet answered
Marked out of
2.00

Flag question

In a student management system, some student related operations may take a long time and therefore need to be handled in asynchronous mode. Which of the following beans would be appropriate for that?

Select one:

- a. StudentOperations - Message Driven bean
- b. StudentManagement - Stateless session bean
- c. StudentAdministration - Stateful session bean
- d. Student - Entity bean

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 12

Not yet answered

Marked out of 2.00

Flag question

How can a TCP server handle the sudden crash of a client gracefully and close the server side socket?

Select one:

- a. Handling the IO Exception from the server side and closing the server side socket
- b. Closing the server side socket as well
- c. Setting the server side socket variable to null
- d. By handling the Socket Exception at the server side and closing the respective socket at the server side

Next page

it1718225

Quiz navigation

1	2	3
9	10	11
17	18	19
25	26	27

Finish attempt ...

Time left 1:39:03

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 12

Not yet answered

Marked out of 2.00

Flag question

How can a TCP server handle the sudden crash of a client gracefully and close the server side socket?

Select one:

- a. Handling the IO Exception from the server side and closing the server side socket
- b. Closing the server side socket as well
- c. Setting the server side socket variable to null
- d. By handling the Socket Exception at the server side and closing the respective socket at the server side

Next page

it1718225

Quiz navigation

1	2	3
9	10	11
17	18	19
25	26	27

Finish attempt ...

Time left 1:39:03

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 13

Not yet answered

Marked out of 2.00

Flag question

Out of the following, what are the characteristics of a distributed system?

Select one or more:

a. Restricted access

b. Distributed memory

c. Message passing

d. Shared memory

Next page

Finish attempt

Time left 1:37:39

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 14

Not yet answered

Marked out of 2.00

Flag question

Which of the following is NOT a function of the skeletons and stubs in RMI?

Select one:

a. Marshalling, which converts the method parameters in the remote function into a transferable format

b. Ensuring the security of the messages transferred

c. Serialization, which converts the objects that needs to be transferred to the remote function, into a transferable format

d. Enable the client to call a remote function without having to manually handle socket communication

Next page

Finish attempt

Time left

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 17

Not yet answered

Marked out of 2.00

Flag question

Which of the following remote method mechanism are NOT appropriate to the given scenario?

Select one or more:

- a. Getting an alert if the temperature of a server room exceeds a certain limit - Asynchronous remote callback
- b. Checking the humidity of a remote weather station periodically - Asynchronous Callback
- c. Validating the credit card details of a transaction - Blocking
- d. Checking the share market price periodically - Message Polling
- e. Validating the login details of a user - Asynchronous Remote callback

Next page

Finish attempt

Time left 1

1 2
9 10
17 18
25 26

Online Exams

Sri Lanka Institute of Information Technology

Which of the following definition is NOT correct regarding cloud computing?

Select one:

- a. Over-provisioning - Allocating more resources in the cloud than required
- b. Under-provisioning - Not having enough resources in the cloud
- c. Multi-tenancy - Having multiple users sharing the same set of resources in the cloud, without interfering each other
- d. Horizontal scaling - Adding more CPU or memory to an existing virtual server

[Next page](#)

MacBook Pro

<td><xsl:value-of select="title" /></td>
<td><xsl:value-of select="artist" /></td>
<td><xsl:value-of select="year" /></td>
</tr>
<xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>

e. In the cloud based Exam management system, assume that there are select, select all, create, update and delete remote operations to be performed on an Examination object. For each examination, the subject code, subject name and exam type (numeric value of 1 or 2) are maintained. Write sample RESTful service URLs that can be used to perform these operations. Indicate the appropriate HTTP method to use with the URL. (3 marks)

f. Name two advantages of the Microservices architecture in comparison of the Monolithic systems. (2 marks)

g. Which of the following are examples of Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) in Cloud computing? (3 marks)

i. A high end virtual machine with a GPU (graphics processing unit) being obtained from the cloud to train a Machine learning model. ✓ X

ii. A cloud based online student management system being used ✓

iii. An IOT (Internet of things) integration platform that is hosted in the cloud being used to build an IOT application ✓

h. Select the most appropriate cloud architecture for each of the following application, out of Private cloud, Public cloud and Hybrid cloud. (3 marks)

i. Hosting banking data in a virtualized environment. P

ii. Using the cheapest possible cloud architecture to manage an enterprise application P

iii. Continue to use an organization's existing in-house data-centers, without investing to buy additional hardware when there's additional peak-hour traffic. b

File Edit View Insert Tools Window Help

</xs:complexType>
</xs:element>

Online Exams

Sri Lanka Institute of Information Technology

What of the following is NOT an advantage of having a separate business logic tier in a share market system?

Select one:

a. Ability to handle miscalculations of computation in servers due to electro magnetic radiation.

b. Load balancing depending on the number of transactions per second.

c. Ability to handle abrupt server failures.

d. Parallelize the computation of large datasets

e. Sequentially compute a complex scientific computation

Next page



Online Exams

Sri Lanka Institute of Information Technology

Which of the following technologies has NOT been greatly advanced with the advent of SOA and web services?

Select one:

- a. Messaging middleware
- b. Web APIs
- c. Cloud computing
- d. Supercomputers



Online Exams

Sri Lanka Institute of Information Technology

What is the reason for using InputStream/OutputStream classes in Java for socket communication?

Select one:

- a. They are used to ensure secure communication
- b. As reading from/writing to sockets is similar to reading from/writing to a file. Both as input/output operations.
- c. These classes are used to allow peer to peer communication
- d. These classes are used to facilitate multithreading



Question 23

Not yet answered
Marked out of
2.00

Flag question

Which of the following XSLT transformation may extract the 'price' attribute of the given input file to an output xml file?

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet type="text/xsl" href="stocks.xsl"?>
<investments>
    <item type="stock" exch="nyse" symbol="ZCHM" company="Zack corp." price="29.56"/>
    <item type="stock" exch="nasdaq" symbol="ZFFX" company="Zaffss Inc." price="30.00"/>
    <item type="stock" exch="nasdaq" symbol="FMMS" company="Freemans corp." price="33.56"/>
</investments>
```



Select one:

- a. <xsl:for-each select="investments/item[@type='stock']">
<stock>
<stock_price>
<xsl:value-of select="price"/>
</stock_price>
</stock>
</xsl:for-each>
- b. <xsl:for-each select="*"/>
<stock>
<stock_price>
<xsl:value-of select="@price"/>
</stock_price>
</stock>
</xsl:for-each>
- c. <xsl:for-each select="investments/item[@type='price']">
<stock>
<stock_price>
<xsl:value-of select="@stock"/>
</stock_price>

 Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT correct regarding OpEx (operational expenditure) and CapEx (Capital expenditure) in different types of clouds?

Select one:

- a. Community clouds have both CapEx and OpEx
- b. Public clouds don't have CapEx but have OpEx
- c. Hybrid clouds have both CapEx and OpEx
- d. Private clouds don't have CapEx

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Question 19

Not yet answered

Marked out of 2.00

Flag question

What of the following is the correct XSD definition for the given element?

```
<lecturer>
  <name>Perera</name>
  <grade>senior lecturer</grade>
</lecturer>
```

Select one:

- a.

```
<x:element name="lecturer">
<x:complexType>
<x:sequence>
  <x:element name="name" type="x:string"/>
  <x:element name="grade" type="x:string"/>
</x:sequence>
</x:complexType>
</x:element>
```
- b.

```
<x:element name="lecturer">
<x:complexType>
<x:sequence>
  <x:element name="name" type="x:string"/>
  <x:element name="grade" type="x:string"/>
</x:sequence>
</x:complexType>
</x:element>
```
- c.

```
<x:element name="lecturer">
<x:complexType>
  <x:element name="name" type="x:string"/>
  <x:element name="grade" type="x:string"/>
</x:complexType>
</x:element>
```
- d.

```
<x:element name="lecturer">
<x:complexType>
  <x:sequence>
    <x:element name="name" type="x:string"/>
  </x:sequence>
</x:complexType>
</x:element>
```



Online Exams

Sri Lanka Institute of Information Technology

Question 19

Not yet answered

Marked out of
2.00

Flag question

Which of the following are NOT examples of heterogeneity in distributed systems?

Select one or more:

- a. Multiple hardware platforms being used by the servers
- b. Multiple Operating systems being used by the clients
- c. Multiple encryption algorithms used by different parts of the system
- d. Messages being encrypted
- e. Multiple users accessing the system concurrently

Moodle

Online Exams

Sri Lanka Institute of Information Technology

Which of the following are NOT a result of the prevalence of Distributed systems?

Select one or more:

- a. Online job listing web sites
- b. Postal service being used to send utility bills
- c. Mobile app based taxi services
- d. Outsourcing of the IT projects to global teams.
- e. Traditional pharmacies that dispense medicine

Which of the following is NOT a reason to do enterprise integration?

Select one:

- a. Having a simple homogeneous client server application that is unlikely to change in the future
- b. Need to integrated legacy systems with newer products and APIs
- c. Have to use products from multiple vendors
- d. Diverse business requirements that may change in the future
- e. Need to support multiple message formats



Question 21

Not yet answered

Marked out of
2.00

 Flag question

What is the purpose of using namespaces in XML?

Select one:

- a. Enable checking for well-formedness
- b. Enable transforming the xml into an html
- c. Enable checking for validity
- d. Enable unique identification of each xml element



Online Exams

Sri Lanka Institute of Information Technology

26

answered
out of
question

Which of the following are NOT applications of Asynchronous calls (both local and remote)?

Select one or more:

- a. Execute a function that doesn't consume much computational time, to create a thread and return the control immediately back to the main thread in the server
- b. Having remote Asynchronous calls in a web application to reduce the amount of data exchanged and to improve user experience
- c. Block the client application till a remote validation is made
- d. Having local asynchronous calls to maintain UI responsiveness
- e. Reduce the waiting time of a client application due to a long running database read.

Next page

Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT an appropriate error handling pattern in Microservice architecture?

Select one:

- a. Process manager pattern
- b. Timeout pattern
- c. Circuit breaker pattern
- d. Bulkhead pattern

Moodle

Online Exams

Sri Lanka Institute of Information Technology

32 unanswered out of 1 question

Which of the following is NOT a strength of RMI?

Select one:

- a. Can use the object oriented principles and design patterns in Java
- b. Language interoperability
- c. Platform interoperability
- d. Enables the secure access of system resources through policy files



Online Exams

Sri Lanka Institute of Information Technology

Question 29

Not yet answered

Marked out of
2.00

Flag question

What are the usages of Docker or other container frameworks in the Microservices architecture?

Select one or more:

- a. Docker facilitates the discovery of services
- b. Docker allows a virtual machine to be run when deploying a service
- c. Docker allows a service to be deployed independently of other services
- d. Docker allows the services to be scaled up or down independently

Next page



Online Exams

Sri Lanka Institute of Information Technology

Which of the following are NOT examples of redundancy being used to provide fault tolerance?

Select one or more:

- a. Using encryption to ensure secure messaging
- b. Using authentication to prevent authorized access
- c. Using error detection codes to identify message errors
- d. Using backup servers to account for abrupt server failures
- e. Using timeouts and re-attempts of requests to account for response failures

Online Exams

Sri Lanka Institute of Information Technology

Which of the following are NOT characteristics of SOA?

Select one or more:

- a. Uses vendor specific message formats
- b. Composable
- c. Reusable
- d. Standard based
- e. Tight coupling



Online Exams

Sri Lanka Institute of Information Technology

Which of the following are NOT benefits of using message queues?

Select one or more:

- a. Enable tight coupling between components
- b. Reduce the scalability of applications
- c. Manage transactions in the business logic
- d. Persistence of messages
- e. Prioritize messages based on the requirement



Online Exams

Sri Lanka Institute of Information Technology

In developing a hotel reservation system, which of the following statements are NOT true, in a BPEL process?

Select one or more:

- a. 'switch' operation is used to call the external services
- b. 'flow' operations are used to simultaneously call the taxi and room reservation services
- c. 'sequence' operations are used to simultaneously call the taxi and room reservation services
- d. 'switch' operation is used to select the payment option based on user preference
- e. 'invoke' operation is used to call the payment service

 Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT correct regarding OpEx (operational expenditure) and CapEx (Capital expenditure) in different types of clouds?

Select one:

- a. Private clouds don't have CapEx
- b. Community clouds have both CapEx and OpEx
- c. Hybrid clouds have both CapEx and OpEx
- d. Public clouds don't have CapEx but have OpEx

[Finish attempt ...](#)

 Online Exams

Sri Lanka Institute of Information Technology

Suppose an organization is managing 50 web services related to healthcare industry. Which of the following is NOT a reason to involve in the governance of the services?

Select one:

- a. Integrating multiple services from different platforms
- b. Maintaining documentation of web services
- c. Show who is responsible for managing each service
- d. Monitor the usage and any errors caused by the services
- e. Managing different versions of web services

[Next page](#)

Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT provided by most application servers to the application developers?

Select one:

- a. Managing the EJB object created
- b. Implementation of the business logic
- c. Session management
- d. Load balancing

Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT a function of the skeletons and stubs in RMI?

Select one:

- a. Enable the client to call a remote function without having to manually handle socket communication
- b. Marshalling, which converts the method parameters in the remote function into a transferable format
- c. Serialization, which converts the objects that needs to be transferred to the remote function, into a transferable format
- d. Ensuring the security of the messages transferred



Online Exams

Sri Lanka Institute of Information Technology

Which of the following is NOT a function of the skeletons and stubs in RMI?

Select one:

- a. Enable the client to call a remote function without having to manually handle socket communication
- b. Marshalling, which converts the method parameters in the remote function into a transferable format
- c. Ensuring the security of the messages transferred
- d. Serialization, which converts the objects that needs to be transferred to the remote function, into a transferable format

Finish attempt ...