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Time taken 1 hour 9 mins

Points 25.00/25.00

Grade 100.00 out of 100.00

Question 1

Correct

1.00 points out
of 1.00

In the context of distributed multimedia systems, in order to specify the resource requirements of software components that process multimedia data, a test framework is usually required that will evaluate the resource utilization of a running component.

Select one:

- ☒ True ✓
- ☐ False

Question 2

Correct

1.00 points out
of 1.00

In the context of web services, comparing with the asynchronous messages by SOAP, it is more appropriate to use request reply communication protocol over the Internet as request reply protocol reduces the closer coupling between client and server that occurs with SOAP.

Select one:

- ☐ True
- ☒ False ✓

Question 3

Correct

In the context of mobile and ubiquitous computing, in-network processing for wireless sensor network can prevent unnecessary communication that is

1.00 points out of 1.00

a significant drain on power.

Select one:

- ☒ True ✓
- ☐ False

Question 4

Correct

1.00 points out of 1.00

In the context of mobile and ubiquitous computing, a volatile system is one in which certain types of change are exceptional rather than the rule (common).

Select one:

- ☐ True
- ☒ False ✓

Question 5

Correct

1.00 points out of 1.00

In the context of web services, centralized coordination approaches include a particular server that plays the role of coordinator and web services require coordination would send their coordination messages to the coordinator.

Select one:

- ☒ True ✓
- ☐ False

Question 6

Correct

1.00 points out of 1.00

In the context of distributed multimedia systems, traffic shaping (i.e., buffering at the destination, more specifically) technique is used for interactive applications such as Internet phone and video conferencing.

Select one:

- ☐ True
- ☒ False ✓

Question 7

Correct

1.00 points out of 1.00

In the context of system models and internetworking, a peer-to-peer system could use replication to ensure the data integrity; and use hash checking to

1.00 points out of 1.00

ensure the data availability.

Select one:

- ☐ True
- ☒ False ✓

Question 8

Correct

1.00 points out of 1.00

In the context of distributed multimedia systems, rarest-first download policy refers to that in a peer-to-peer system such as BitTorrent, each peer maintains a record of the number of copies of each piece in its peer set (the set of connected peers) and, based on this data structure, schedules downloads by randomly selecting a piece from its rarest piece set.

Select one:

- ☒ True ✓
- ☐ False

Question 9

Correct

1.00 points out of 1.00

In the context of web services, digital signatures are used to ensure that the information content has not changed since the document was digitally signed.

Select one:

- ☒ True ✓
- ☐ False

Question 10

Correct

1.00 points out of 1.00

In the context of inter-process communication, an overlay network is a computer network that is built on top of another network.

Select one:

- ☒ True ✓
- ☐ False

Question 11

Correct

1.00 points out

In the context of web services, the RPC semantics are defined between an application source and an application destination with a goal to provide a given semantics for message delivery.

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given semantics for message delivery.

Select one:

- ☐ True
- ☒ False ✓

Question 12

Correct

1.00 points out of 1.00

In the context of mobile and ubiquitous computing, a *smart space* offers a further indirect communication service by supporting a model where processes can place arbitrary items of structured data in a persistent space, and others can read and remove from that space by specifying patterns of interests.

Select one:

- ☐ True
- ☒ False ✓

Question 13

Correct

1.00 points out of 1.00

In the context of distributed multimedia systems, media synchronization refers to that certain streams are closely coupled, e.g., the audio that accompanies a video stream. They should be synchronized using timestamps embedded in the media data.

Select one:

- ☒ True ✓
- ☐ False

Question 14

Correct

1.00 points out of 1.00

In the context of distributed objects and components, it is generally more complex for a programmer to deal with an exception than an ordinary return because exceptions break the normal flow of control.

Select one:

- ☒ True ✓
- ☐ False

Question 15

In the context of mobile and ubiquitous computing, improving upon the

Correct

1.00 points out of 1.00

"pull" model of service discovery by multicasting (or broadcasting) and caching replies to queries may incur extra costs.

Select one:

- ☒ True ✓
- ☐ False

Question 16

Correct

1.00 points out of 1.00

In the context of operating system support, the sender of remote invocation is not delayed if it uses synchronous message passing.

Select one:

- ☐ True
- ☒ False ✓

Question 17

Correct

1.00 points out of 1.00

In the context of mobile and ubiquitous computing, users change their (pseudonymous) identifiers in the mix zone, and the mix zone does not prevent correlations between the identifiers used by a particular individual.

Select one:

- ☐ True
- ☒ False ✓

Question 18

Correct

1.00 points out of 1.00

In the context of networking, virtual circuit network protocol is not widely used in place of IP of the current Internet due to its overhead of registering circuits.

Select one:

- ☒ True ✓
- ☐ False

Question 19

Correct

1.00 points out

In the context of distributed objects and components, container-based approach could be adopted to provide migration transparency by having container to operate intercepting on incoming invocations and making a

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series of calls to implement the desired level of transparency before optionally passing on the invocation to the component.

Select one:

- ☒ True ✓
- ☐ False

Question 20

Correct

1.00 points out of 1.00

In the context of distributed objects and components, a oneway operation can have out or inout parameters, but it may not raise an exception because there are reply messages.

Select one:

- ☐ True
- ☒ False ✓

Question 21

Correct

1.00 points out of 1.00

In the context of web services, TLS provides secure transmission of information, whereas XML security applies the security measures to documents to be exchanged and stored.

Select one:

- ☒ True ✓
- ☐ False

Question 22

Correct

1.00 points out of 1.00

In the context of distributed systems, a hierarchic naming scheme usually scales worse than a naming scheme that uses linear structures.

Select one:

- ☐ True
- ☒ False ✓

Question 23

Correct

1.00 points out of 1.00

In the context of distributed objects and components, generally, if a method has void return value, has no out or inout parameters, and has no user-defined exceptions, it could be regarded as a oneway method.

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Select one:

- ☒ True ✓
- ☐ False

Question 24

Correct

1.00 points out
of 1.00

In the context of web services, DNS is used to convert the domain name into the internet address of a server. The client request is sent to that location where the server dispatcher selects an operation to be performed.

Select one:

- ☒ True ✓
- ☐ False

Question 25

Correct

1.00 points out
of 1.00

In the context of mobile and ubiquitous computing, in a data-oriented programming system such as the Web, the methods in the interface between components are always the same, the data passed through those methods and the semantics of the processing that is applied to that data are allowed to vary.

Select one:

- ☒ True ✓
- ☐ False