Final Exam

Total points 30

1. Marlon is creating a web page. It's a simple page, which has a list of his current projects, a short bio about himself, and some GIF images of some of those same projects that he uploaded to the server himself. What type of web page is this?   **1 point**

- ○ dynamic web page
- ○ web service
- ○ web app
- ⦿ static web page

2. Which of these examples is a **web application**?   **1 point**

- ⦿ online poker
- ○ a website conducting a survey
- ○ a blog
- ○ an online shopping platform

3. Which of these formats can be used to express and structure content to be sent over the internet? Choose the **three correct** answers: **1 point**

- ☐ CSS
- ☑ JSON
- ☑ XML
- ☑ HTML

4. What are the essential parts of an HTTP request? Choose the **three correct** answers.   **1 point**

- ☑ request-line
- ☐ a message body
- ☑ headers
- ☑ a blank space

5. Which of these are essential parts of an HTTP server response? Choose the **two correct** answers.   **1 point**

- ☐ a message body
- ☐ response-line
- ☑ status-line
- ☑ headers

6. Consider the following two statements about Javascript. Choose the one correct option.

1 point

1. It can allow you to generate content within the browser
2. A Javascript file must be sent in addition to an HTML file

- ⦿ Only the first statement is true
- ◯ Only the second statement is true
- ◯ Both statements are true
- ◯ Neither statement is true

7. What is the term for the action that converts the parameters into a standardized message on the client side?

1 point

- ◯ invocation
- ◯ binding
- ◯ blocking
- ⦿ marshalling

8. Consider the following two statements about middleware and RPC. Choose the one correct option.

1 point

1. RPC (Remote Procedure Call) is a form of middleware
2. The IDL (Interface Definition Language) is responsible for generating stubs

- ◯ Only the first statement is true
- ◯ Only the second statement is true
- ⦿ Both statements are true
- ◯ Neither statement is true

9. Which of these can be found in Common Object Request Broker Architecture (CORBA)? Choose the **three correct** answers.

1 point

- ☐ client and server stubs
- ☑ object request broker
- ☑ interface definition language
- ☑ facilities

10. What are some disadvantages of CORBA? Choose the **two correct** answers.

1 point

- ☐ Clients and servers must be implemented in the same language
- ☑ Implementation is difficult
- ☑ Objects are always called remotely
- ☐ Dynamic binding is impossible

11. In what format are SOAP messages represented?

1 point

- ◯ HTML

○ JSON

◉ XML

○ SOAP formatting is not based on any other format

12. Which part of a SOAP message can be included but is **NOT** required?

1 point

○ body

○ envelope

○ HTTP method

◉ header

13. True or False: a SOAP message must be sent over HTTP.

1 point

○ True

◉ False

14. Which type of description will a service requester need to bind to a web service?

1 point

○ SOAP

○ WS-Description

◉ WSDL

○ UDDI

15. Which section of WSDL 2.0 contains concrete information like physical ports and mapping interfaces to endpoints?

1 point

○ portTypes

○ interfaces

◉ services

○ bindings

16. What does the types section of a WSDL 2.0 document allow developers to do?

1 point

◉ Define abstract data types

○ Specify document-style or RPC-style interaction

○ Specify which communications protocol is used (HTTP, SMTP...)

○ Specifies the type of interaction (request-response, solicit-response...)

17. Which aspects of web services does UDDI allow you to implement? Choose the **two correct** answers.

1 point

☐ invocation

☑ publication

☑ discovery

☐ composition

18. In which section of a UDDI description will you find information like the category of business and service?   **1 point**

⦿ yellow pages

◯ white pages

◯ blue pages

◯ green pages

19. Under which data structure of UDDI will you find a reference to the WSDL description?   **1 point**

◯ serviceInterface

⦿ tModel

◯ businessEntity

◯ businessService

20. What is the difference between coordination and composition in the context of services?   **1 point**

◯ coordination is focused on pairwise interactions

◯ composition uses only objects

⦿ composition exposes a combination of services as another service

◯ coordination can only be done in a synchronous way

21. Consider the following two statements. Choose the one correct option.   **1 point**

1. WS-BPEL only allows you to compose services out of basic services.

2. WS-BPEL has other features such as conditional logic and the ability to store state.

◯ Only the first statement is true

◯ Only the second statement is true

⦿ Both statements are true

◯ Both statements are false

22. What does it mean that RESTful services are cacheable?   **1 point**

⦿ the client can store a version of the server's response

◯ the server can store the state of the interaction

◯ the server can queue and prioritize requests

◯ the service logic can be stored on the client

23. Which of these formats can be used within the invocation of a REST service?   **1 point**

Choose the **three correct** answers.

- ☐ WSDL
- ☑ JSON
- ☑ XML
- ☑ simple text

24. Which of these is a good name for a REST resource? In other words, which of these resource names follow best practices? Choose the **two correct** answers.

1 point

- ☑ /cars/2/tires
- ☑ /cars/2
- ☐ /getCar/2
- ☐ /car/2

25. You received an HTTP status code 201 from the server, which means that a resource was created. In a well-designed REST service, which HTTP methods did you send to the server?

1 point

- ○ PUT
- ○ GET
- ◉ POST
- ○ DELETE

26. Which of these elements in the HTTP header of a request specifies the format of the response?

1 point

- ○ Content-Encoding:
- ○ Host
- ◉ Accept:
- ○ Content-Type:

27. What is the most important difference between WS*-style web services (which utilize SOAP, WSDL, etc.) and RESTful web services?

1 point

- ◉ RESTful services are simpler
- ○ They do not use the same transfer protocol
- ○ Their differences are very minor
- ○ WS* are more secure

28. Where are the formats of the input and output data specified, according to REST best practices?

1 point

- ○ As parameters in the URL
- ○ In the HTTP request in XML format
- ◉ In the HTTP request in JSON format

○ In the HTTP header

29. What are some advantages of microservices architecture? Select the **two correct** answers.

1 point

☑ Services can be developed in different languages

☐ Good performance

☐ No centralized management

☑ Scaling through replication

30. Consider the following two statements about microservices architecture. Choose the one correct option.

1 point

1. Communication between microservices is stateless

2. Testing microservice architecture is complex

○ Only the first statement is true.

○ Only the second statement is true

⦿ Both statements are true

○ Neither statement is true

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