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 app
- ⦿ static web page
- ◯ web service

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

1 point

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

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

- ☑ JSON
- ☑ XML
- ☑ HTML
- ☐ CSS

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

1 point

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

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

1 point

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

- ◯ blocking
- ⦿ marshalling

○ invocation

○ binding

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

☑ object request broker

☑ facilities

☑ interface definition language

☐ client and server stubs

10. What are some disadvantages of CORBA? Choose the **two correct** answers.   1 point

☐ Clients and servers must be implemented in the same language

☐ Dynamic binding is impossible

☑ Objects are always called remotely

☑ Implementation is difficult

11. In what format are SOAP messages represented?   1 point

○ JSON

○ SOAP formatting is not based on any other format

◉ XML

○ HTML

12. Which part of a SOAP message can be included but is **NOT** required?   1 point

○ envelope

◉ header

○ body

○ HTTP method

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

○ WS-Description

○ UDDI

◉ WSDL

○ SOAP

15. Which section of WSDL 2.0 contains concrete information like physical ports and mapping interfaces to endpoints?   1 point

○ interfaces

○ bindings

○ bindings

○ portTypes

◉ services

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`

○ white pages

○ blue pages

◉ yellow 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 can only be done in a synchronous way

○ coordination is focused on pairwise interactions

◉ composition exposes a combination of services as another service

○ composition uses only objects

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 service logic can be stored on the client

◉ 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

23. Which of these formats can be used within the invocation of a REST service? Choose the **three correct** answers.   `1 point`

- [x] XML
- [x] simple text
- [ ] WSDL
- [x] JSON

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`

- [ ] /car/2
- [x] /cars/2
- [ ] /getCar/2
- [x] /cars/2/tires

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`

- ( ) DELETE
- ( ) GET
- (•) POST
- ( ) PUT

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

`1 point`

- (•) Accept:
- ( ) Content-Encoding:
- ( ) Host
- ( ) 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`

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

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

`1 point`

- ( ) In the HTTP request in XML format
- (•) In the HTTP request in JSON format
- ( ) In the HTTP header
- ( ) As parameters in the URL

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

`1 point`

- [ ] Good performance
- [x] Scaling through replication
- [ ] No centralized management
- [x] Services can be developed in different languages

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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