

# Final Exam

points 30

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

- ☐ web app
- ☐ web service
- ☒ static web page
- ☐ dynamic web page

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

1 point

- ☐ online poker
- ☐ a website conducting a survey
- ☐ a blog
- ☒ an online shopping platform

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
- ☐ CSS
- ☒ HTML

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

1 point

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

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

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

- ☒ marshalling
- ☐ blocking
- ☐ binding
- ☐ invocation

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

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

1 point

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

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
- ☐ Dynamic binding is impossible
- ☒ Objects are always called remotely

In what format are SOAP messages represented?

1 point

- ☐ HTML
- ☒ XML
- ☐ SOAP formatting is not based on any other format
- ☐ JSON

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

1 point

- ☐ HTTP method
- ☐ body
- ☐ envelope
- ☒ 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

- ☐ 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

- ☐ bindings
- ☐ portTypes
- ☐ interfaces
- ☒ services

. 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...)

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

1 point

- ☐ invocation
- ☒ publication
- ☒ discovery
- ☐ composition

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

1 point

- ☒ yellow pages
- ☐ white pages
- ☐ green pages
- ☐ blue pages

Under which data structure of UDDI will you find a reference to the WSDL description?

1 point

- ☒ tModel
- ☐ businessService
- ☐ serviceInterface
- ☐ businessEntity

What is the difference between coordination and composition in the context of services?

1 point

- ☐ coordination can only be done in a synchronous way
- ☐ composition uses only objects
- ☐ coordination is focused on pairwise interactions
- ☒ composition exposes a combination of services as another service

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

What does it mean that RESTful services are cacheable?

1 point

- ☐ the server can store the state of the interaction
- ☐ the service logic can be stored on the client
- ☒ the client can store a version of the server's response
- ☐ the server can queue and prioritize requests

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

1 point

- ☒ JSON
- ☒ XML
- ☐ WSDL
- ☒ simple text

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
- ☐ /getCar/2
- ☒ /cars/2/tires
- ☒ /cars/2



5. 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

- ☒ POST
- ☐ PUT
- ☐ GET
- ☐ DELETE

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

1 point

- ☐ Content-Type:
- ☐ Host
- ☐ Content-Encoding:
- ☒ Accept:

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

1 point

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

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 header
- ☒ In the HTTP request in JSON format
- ☐ As parameters in the URL

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

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