

CSE445/598 Distributed Software Development Quiz 1

This is an open book and open notes test. Choose one answer only in each question, unless otherwise specified. There are 20 points available. The time allowed is 20 minutes.

- 1 Which of the followings belong to software architecture? Select all that apply.
☐ **Blackboard architecture** ☐ SOAP over HTTP architecture
☐ Client-server architecture ☐ **Pipe and filter architecture**
- 2 Multi tenancy is a key concept in
(A) client-server systems (B) federation of servers
(C) **cloud computing** (D) virtualization of servers
- 3 Which of the followings belong to fallacies of distributed computing? Select all that apply.
☐ Network is based on object-oriented computing.
☐ **The network is reliable.**
☐ Network is the bottle-neck of distributed computing.
☐ **Bandwidth is infinite.**
- 4 What system is truly based on a vendor-independent standard?
(A) CORBA (B) DCOM
(C) **Enterprise Service Bus (ESB)** (D) J2EE
- 5 What is the key difference between object-oriented and service-oriented development cycles?
(A) Static binding vs. dynamic binding (B) Java vs. C#
(C) CORBA vs. ESB (D) **One cycle vs. three parallel cycles**
- 6 What computing paradigm best supports distributed development of software?
(A) functional computing (B) object-oriented computing
(C) distributed object computing (D) **service-oriented computing**
- 7 What is the standard language in CORBA used for defining the interface between distributed objects?
(A) HTML (B) **IDL** (C) Java (D) WSDL
- 8 Where does the database normally reside in a fat-client (of client-server) architecture?
(A) in the client layer (B) **in the server layer**
(C) in a separate data management layer (D) the architecture does not support database.
- 9 In service-oriented computing, the building blocks of software systems are services, which are
(A) always stored in a service broker. (B) always developed by the application builder.
(C) **loosely coupled.** (D) accessed by remote procedure calls.

- 10 In Distributed Object Architecture, what component is called the software bus?
(A) a pair of distributed objects (B) communication protocols SOAP/HTTP
(C) Enterprise Service Bus (ESB) (D) **Object Request Broker**
- 11 Java Enterprise Edition (Java EE) applications are based on a 4-tier architecture, which includes (Select all that apply):
☐ **Client tier** ☐ **Business tier** ☐ **Ontology tier** ☐ **SOAP tier**
- 12 What communication protocol is used for accessing RESTful services?
(A) SOAP (B) IP (C) WSDL (D) UDDI (E) **HTTP**
- 13 What communication protocol is directly used by the WSDL Web services for transferring data?
(A) **SOAP** (B) IP (C) ebXML (D) UDDI (E) HTTP
- 14 If you want to create a standard service broker with both service directory and service repository, what standard should be used?
(A) **ebXML** (B) SOAP (C) XML (D) UDDI (E) WSDL
- 15 What protocol in the Web services protocol stack is normally in the layer directly below the SOAP protocol?
(A) HTML (B) **HTTP** (C) TCP (D) UDP (E) WSDL
- 16 If you write a program to search a UDDI service broker, what UDDI pages do you search?
(A) White Pages (B) Yellow Pages (C) **Green Pages** (D) Blue Pages
- 17 Service-oriented software development achieves the platform-independent computing by
(A) integrating service code into the application. (B) **creating service proxies in the application.**
(C) migrating service code to application site. (D) using the same language for all parts.
- 18 A design pattern is a
(A) **software pattern** (B) architectural pattern
(C) computing pattern (D) all of the above
- 19 The process of application building in SOA style includes (Select all that apply)
☐ developing the code of each service
☐ **code-level assembling and binding of components**
☐ **process level specification**
☐ defining the WSDL interfaces of services
- 20 What statements best describe the architecture-driven approach? Select all that apply.
☐ **top-down approach** ☐ separate architecture design from coding
☐ Bottom-up approach ☐ **derive the executable directly from the architecture design**