

Student: \_\_\_\_\_

1. A business-driven IT architectural approach that supports integrating a business as linked, repeatable tasks or services, is a description of which architecture trend that are quickly becoming requirements for business?  
 A. Service Oriented Architectures  
 B. Virtualization  
 C. Grid Computing  
 D. Cloud Computing
2. "A framework of dividing the resources of a computer into multiple execution environments", is a description of which architecture trend that are quickly becoming requirements for business?  
 A. Service Oriented Architectures  
 B. Virtualization  
 C. Grid Computing  
 D. Cloud Computing
3. "An aggregation of geographically dispersed computing, storage, and network resources, coordinated to deliver improved performance, higher quality of service, better utilization, and easier access to data", is a description of which architecture trend that are quickly becoming requirements for business?  
 A. Service Oriented Architectures  
 B. Virtualization  
 C. Grid Computing  
 D. Cloud Computing
4. A form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet", is a description of which architecture trend that are quickly becoming requirements for business?  
 A. Service Oriented Architectures  
 B. Virtualization  
 C. Grid Computing  
 D. Cloud Computing
5. What is a capability of Grid computing?  
 A. Optimize computing and data resources  
 B. Pool computing and data resources them for large-capacity workloads  
 C. Share computing and data resources them across networks  
 D. All are benefits Grid Computing
6. What is a benefit of Grid computing?  
 A. Improving productivity and collaboration of virtual organizations.  
 B. Allowing widely dispersed departments and businesses to create virtual organizations to share data.  
 C. Providing instantaneous access to massive computing and data resources.  
 D. All of the above
7. What includes the plans for how an organization will build, deploy, use, and share its data, processes, and IT assets?  
 A. Enterprise architect  
 B. Data architecture  
 C. Enterprise architecture  
 D. Infrastructure architecture

8. What determines how applications integrate and relate to each other?
- A. Application architecture
  - B. Data architecture
  - C. Enterprise architecture
  - D. Infrastructure architecture
9. What includes the hardware, software, and telecommunications equipment that, when combined, provide the underlying foundation to support the organization's goals?
- A. Application architecture
  - B. Data architecture
  - C. Enterprise architecture
  - D. Infrastructure architecture
10. Which of the following is not one of the three components of an enterprise architecture?
- A. Application architecture
  - B. Data architecture
  - C. Services architecture
  - D. Infrastructure architecture
11. Which of the following is not a component of a data architecture?
- A. Backup and recovery
  - B. Disaster recovery
  - C. Web services
  - D. Information security
12. Which architecture identifies where and how important data, like customer records, are maintained and secured?
- A. Enterprise architect
  - B. Data architecture
  - C. Enterprise architecture
  - D. Infrastructure architecture
13. What is recovery?
- A. The ability to get a system up and running in the event of a system crash
  - B. The ability to get a system up and running in the event of a system failure
  - C. Restoring the information backup
  - D. All of the above
14. What is a backup?
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time
15. What is failover?
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time

16. Recovery is defined as:
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time
17. What is fault tolerance?
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time
18. What is a separate and fully equipped facility where the company can move immediately after a disaster and resume business?
- A. Cold site
  - B. Hot site
  - C. Disaster recovery cost curve chart
  - D. Disaster recovery plan
19. What is a detailed process for recovering information or an IT system in the event of a catastrophic disaster such as a fire or flood?
- A. Cold site
  - B. Hot site
  - C. Disaster recovery cost curve chart
  - D. Disaster recovery plan
20. What refers to how well a system can adapt to increased demands?
- A. Scalability
  - B. Capacity planning
  - C. Reliability
  - D. Availability
21. What determines the future IT infrastructure requirements for new equipment and additional network capacity?
- A. Scalability
  - B. Capacity planning
  - C. Reliability
  - D. Availability
22. What addresses when systems can be accessed by employees, customers, and partners?
- A. Scalability
  - B. Capacity planning
  - C. Reliability
  - D. Availability
23. Which of the following is not a component of an application architecture?
- A. Services
  - B. Open system
  - C. Events
  - D. Capacity planning

24. What is an open system?  
A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services  
B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers  
● CA broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them  
D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
25. What is interoperability?  
A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services  
● B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers  
CA broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them  
D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
26. What are Web services?  
● A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services  
B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers  
CA broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them  
D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
27. Which of the following is not a primary business goal of enterprise architectures?  
A. Reduce costs/improve productivity  
● B. Improve customer satisfaction  
C. Generate goals  
D. Create competitive advantages
28. Which of the following is a type of backup/recovery media?  
A. DVD  
B. Tape  
C. Disk  
● D. All of the above
29. What is the primary difference between the different types of backup/recovery media?  
A. Speed  
B. Cost  
C. Expense  
● D. All of the above
30. What type of backup strategy would you recommend to an organization that deals with large volumes of critical information?  
● A. Hourly  
B. Daily  
C. Weekly  
D. Monthly

31. What type of backup strategy would you recommend to an organization that deals with small amounts of non-critical information?
- A. Hourly
  - B. Daily
  - C. Weekly
  - D. All of the above
32. What does the disaster recovery cost curve chart?
- A. The cost to the organization of the unavailability of information
  - B. The cost to the organization of recovering from a disaster over time
  - C. The cost to the organization of the unavailability of technology
  - D. All of the above
33. What is a separate facility that does not have any computer equipment, but is a place where employees can move after the disaster.
- A. Disaster recovery plan
  - B. Disaster recovery cost curve
  - C. Hot site
  - D. Cold site
34. Which of the following is not a characteristic of a solid infrastructure architecture?
- A. Flexibility
  - B. Scalability
  - C. Integrity
  - D. Performance
35. What ensures all systems are functioning correctly and providing accurate information?
- A. Reliability
  - B. Availability
  - C. Flexibility
  - D. Performance
36. What addresses the timeframes when systems can be accessed by employees, customers, and partners?
- A. Reliability
  - B. Availability
  - C. Flexibility
  - D. Performance
37. What measures how quickly a system performs a certain process or transaction in terms of efficiency IT metrics of both speed and throughput?
- A. Reliability
  - B. Availability
  - C. Flexibility
  - D. Performance
38. A widely held but difficult-to-achieve standard of availability for a system or product is known as \_\_\_\_\_.
- A. five 8s
  - B. three 9s
  - C. four 9s
  - D. five 9s
39. Availability is typically measured relative to \_\_\_\_\_.
- A. 100 percent operational
  - B. never failing
  - C. all of the above
  - D. none of the above

40. What is an open system?
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
  - CA broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D. Any program whose source code is made available for use or modification as users or other developers see fit.
41. Web services are based on \_\_\_\_\_ language for documents containing structured information?
- A. Formula Translation
  - B. Extensible Markup
  - C. Common Business Oriented
  - D. Java
42. What is loose coupling?
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B The capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.
  - CA broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
43. What are the technical concepts of SOA? **Service oriented achitecture**
- A. Services as business tasks
  - B. Interoperability, the capability of two or more computer systems to share data and resources
  - C Loose coupling, the capability of services to be joined together on demand to create composite services or disassembled just as easily into their functional components,
  - D. All of the above.
44. What are the regulatory issues concerning international telecommunications?
- A. Dealing with trans-border data flow restrictions
  - B. Managing international telecommunication regulations
  - C. Handling international politics
  - D. All of the above.
45. Which one of the following is not a regulatory issue concerning international telecommunications?
- A. Dealing with trans-border data flow restrictions
  - B. Improving operational efficiency of networks
  - C. Managing international telecommunication regulations
  - D. Handling international politics
46. What are the top international telecommunications issues that are network related?
- A. Improving operational efficiency of networks
  - B. Dealing with different networks
  - C. Controlling data communication security
  - D. All of the above.
47. Which one of the following is not a network issue related to international telecommunications?
- A. Handling international politics
  - B. Improving operational efficiency of networks
  - C. Dealing with different networks
  - D. Controlling data communication security

48. What are the top international telecommunications issues that are technology and country-oriented?
- A. Managing network infrastructure across countries
  - B. Managing international integration of technologies
  - C. Dealing with international tariff structures
  - D. All of the above.
49. Organizations should not choose a backup and recovery strategy that is in line with its business goals  
True False
50. Virtualization is a framework of dividing the resources of a computer into multiple execution environments.  
 True False
51. Storm computing is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."  
True False
52. Cloud computing offsets the need for organizations to purchase software and software licenses for applications.  
 True False
53. One of the advantages of the cloud computing approach is the loss of control over the applications that are used.  
True False
54. Many corporate executives are hesitant to take advantage of cloud computing because of the lack of control over their company's data and information.  
 True False
55. Web services are the capability of two or more computer systems to share data and resources, even though they are made by different manufacturers.  
True False
56. Infrastructure architecture identifies where and how important data, like customer records, is maintained and secured.  
True False
57. Fault tolerance is a computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service. Fault tolerance can be provided with software, or embedded in hardware, or provided by some combination  
 True False
58. The primary characteristics of a solid infrastructure include flexibility, scalability, reliability, availability, and performance.  
 True False
59. Technically, Web services are based on *Extensible Markup Language (XML)*, a markup language for documents containing structured information.  
 True False
60. Loose coupling is the capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.  
 True False
61. Organizations should choose a \_\_\_\_\_ and recovery strategy that is in line with its business goals  
\_\_\_\_\_

62. \_\_\_\_\_ is a framework of dividing the resources of a computer into multiple execution environments.  
\_\_\_\_\_
63. \_\_\_\_\_ is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."  
\_\_\_\_\_
64. \_\_\_\_\_ offsets the need for organizations to purchase software and software licenses for applications.  
\_\_\_\_\_
65. One of the \_\_\_\_\_ of the cloud computing approach is the loss of control over the applications that are used.  
\_\_\_\_\_
66. Many corporate executives are hesitant to take \_\_\_\_\_ of cloud computing because of the lack of control over their company's data and information  
\_\_\_\_\_
67. \_\_\_\_\_ architectures include the plans for how an organization will build, deploy, use, and share its data, processes, and IT assets.  
\_\_\_\_\_
68. \_\_\_\_\_ architecture determines how applications integrate and relate to each other.  
\_\_\_\_\_
69. A(n) \_\_\_\_\_ site is a separate and fully equipped facility where the company can move immediately after a disaster and resume business.  
\_\_\_\_\_
70. A(n) \_\_\_\_\_ site is a separate facility that does not have any computer equipment, but is a place where employees can move after the disaster.  
\_\_\_\_\_
71. \_\_\_\_\_ ensured all systems are functioning correctly and providing accurate information.  
\_\_\_\_\_
72. \_\_\_\_\_ is a backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time.  
\_\_\_\_\_
73. Managing \_\_\_\_\_ access to information is a critical piece of the data architecture.  
\_\_\_\_\_
74. \_\_\_\_\_ refers to how well a system can adapt to increased demands.  
\_\_\_\_\_
75. Technically, Web services are based on \_\_\_\_\_ language for documents containing structured information.  
\_\_\_\_\_
76. \_\_\_\_\_ is the capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.  
\_\_\_\_\_



83. List and describe the five characteristics of a solid infrastructure architecture.

84. Discuss three architecture trends that are quickly becoming requirements for all businesses.

85. Distinguish between open system and open source.

# 11 Key

1. (p. 357) A business-driven IT architectural approach that supports integrating a business as linked, repeatable tasks or services, is a description of which architecture trend that are quickly becoming requirements for business?
- A.** Service Oriented Architectures
  - B. Virtualization
  - C. Grid Computing
  - D. Cloud Computing

Service oriented architecture (SOA) is a business-driven IT architectural approach that supports integrating a business as linked, repeatable tasks or services.

*Chapter - Chapter 11 #1  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium*

2. (p. 361) "A framework of dividing the resources of a computer into multiple execution environments", is a description of which architecture trend that are quickly becoming requirements for business?
- A. Service Oriented Architectures
  - B.** Virtualization
  - C. Grid Computing
  - D. Cloud Computing

Virtualization is a framework of dividing the resources of a computer into multiple execution environments.

*Chapter - Chapter 11 #2  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium*

3. (p. 364) "An aggregation of geographically dispersed computing, storage, and network resources, coordinated to deliver improved performance, higher quality of service, better utilization, and easier access to data", is a description of which architecture trend that are quickly becoming requirements for business?
- A. Service Oriented Architectures
  - B. Virtualization
  - C.** Grid Computing
  - D. Cloud Computing

Grid computing is an aggregation of geographically dispersed computing, storage, and network resources, coordinated to deliver improved performance, higher quality of service, better utilization, and easier access to data.

*Chapter - Chapter 11 #3  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium*

4. (p. 367) A form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet", is a description of which architecture trend that are quickly becoming requirements for business?
- A. Service Oriented Architectures
  - B. Virtualization
  - C. Grid Computing
  - D. Cloud Computing**

Cloud computing is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."

Chapter - Chapter 11 #4  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium

5. (p. 365) What is a capability of Grid computing?
- A. Optimize computing and data resources
  - B. Pool computing and data resources them for large-capacity workloads
  - C. Share computing and data resources them across networks
  - D. All are benefits Grid Computing**

With grid computing, organizations can optimize computing and data resources, pool them for large-capacity workloads, share them across networks, and enable collaboration.

Chapter - Chapter 11 #5  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

6. (p. 366) What is a benefit of Grid computing?
- A. Improving productivity and collaboration of virtual organizations.**
  - B. Allowing widely dispersed departments and businesses to create virtual organizations to share data.
  - C. Providing instantaneous access to massive computing and data resources.
  - D. All of the above

Improving productivity and collaboration of virtual organizations and respective computing and data resources.

Chapter - Chapter 11 #6  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

7. (p. 345) What includes the plans for how an organization will build, deploy, use, and share its data, processes, and IT assets?
- A. Enterprise architect
  - B. Data architecture
  - C. Enterprise architecture**
  - D. Infrastructure architecture

This is the definition of enterprise architecture.

Chapter - Chapter 11 #7  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Easy

8. What determines how applications integrate and relate to each other?  
(p. 348) **A.** Application architecture  
B. Data architecture  
C. Enterprise architecture  
D. Infrastructure architecture

This is the definition of application architecture.

Chapter - Chapter 11 #8  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Easy

9. What includes the hardware, software, and telecommunications equipment that, when combined, provide the underlying foundation to support the organization's goals?  
(p. 348) A. Application architecture  
B. Data architecture  
C. Enterprise architecture  
**D.** Infrastructure architecture

This is the definition of infrastructure architecture.

Chapter - Chapter 11 #9  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Easy

10. Which of the following is not one of the three components of an enterprise architecture?  
(p. 348) A. Application architecture  
B. Data architecture  
**C.** Services architecture  
D. Infrastructure architecture

Services architecture is not a part of an enterprise architecture.

Chapter - Chapter 11 #10  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Medium

11. Which of the following is not a component of a data architecture?  
(p. 348) A. Backup and recovery  
B. Disaster recovery  
**C.** Web services  
D. Information security

Web services is not a part of a data architecture.

Chapter - Chapter 11 #11  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

12. Which architecture identifies where and how important data, like customer records, are maintained and secured?  
(p. 348)
- A. Enterprise architect
  - B. Data architecture**
  - C. Enterprise architecture
  - D. Infrastructure architecture

This is the definition of data architecture.

Chapter - Chapter 11 #12  
Gradable: automatic  
Learning Outcome: 11.8  
Level: Easy

13. What is recovery?  
(p. 348)
- A. The ability to get a system up and running in the event of a system crash
  - B. The ability to get a system up and running in the event of a system failure
  - C. Restoring the information backup
  - D. All of the above**

This is the definition of recovery.

Chapter - Chapter 11 #13  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

14. What is a backup?  
(p. 348)
- A. An exact copy of a system's information**
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time

This is the definition of backup.

Chapter - Chapter 11 #14  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

15. What is failover?  
(p. 349)
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C. A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - D. A backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time**

This is the definition of failover.

Chapter - Chapter 11 #15  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

16. Recovery is defined as:  
(p. 348)
- A. An exact copy of a system's information
  - B.** The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - DA backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time

This is the definition of recovery.

Chapter - Chapter 11 #16  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

17. What is fault tolerance?  
(p. 349)
- A. An exact copy of a system's information
  - B. The ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup
  - C** A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service
  - DA backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time

This is the definition of fault tolerance.

Chapter - Chapter 11 #17  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

18. What is a separate and fully equipped facility where the company can move immediately after a disaster and resume business?  
(p. 349)
- A. Cold site
  - B.** Hot site
  - C. Disaster recovery cost curve chart
  - D. Disaster recovery plan

This is the definition of hot site.

Chapter - Chapter 11 #18  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

19. What is a detailed process for recovering information or an IT system in the event of a catastrophic disaster such as a fire or flood?  
(p. 349)
- A. Cold site
  - B. Hot site
  - C. Disaster recovery cost curve chart
  - D.** Disaster recovery plan

This is the definition of disaster recovery plan.

Chapter - Chapter 11 #19  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

20. What refers to how well a system can adapt to increased demands?

- (p. 353)
- A.** Scalability
  - B. Capacity planning
  - C. Reliability
  - D. Availability

This is the definition of scalability.

Chapter - Chapter 11 #20  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

21. What determines the future IT infrastructure requirements for new equipment and additional network capacity?

- (p. 353)
- A. Scalability
  - B.** Capacity planning
  - C. Reliability
  - D. Availability

This is the definition of capacity planning.

Chapter - Chapter 11 #21  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

22. What addresses when systems can be accessed by employees, customers, and partners?

- (p. 353)
- A. Scalability
  - B. Capacity planning
  - C. Reliability
  - D.** Availability

This is the definition of availability.

Chapter - Chapter 11 #22  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

23. Which of the following is not a component of an application architecture?

- (p. 355)
- A. Services
  - B. Open system
  - C. Events
  - D.** Capacity planning

Capacity planning is a component of infrastructure architecture.

Chapter - Chapter 11 #23  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

24. What is an open system?  
(p. 356)
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
  - C** A broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service

This is the definition of open system.

Chapter - Chapter 11 #24  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

25. What is interoperability?  
(p. 358)
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B**. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
  - C A broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service

This is the definition of interoperability.

Chapter - Chapter 11 #25  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

26. What are Web services?  
(p. 354)
- A** Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
  - C A broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D A computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service

This is the definition of Web services.

Chapter - Chapter 11 #26  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

27. Which of the following is not a primary business goal of enterprise architectures?  
(p. 346)
- A. Reduce costs/improve productivity
  - B. Improve customer satisfaction
  - C. Generate goals**
  - D. Create competitive advantages

Generate growth, not generate goals, is a primary business goal of enterprise architecture.

Chapter - Chapter 11 #27  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Hard

28. Which of the following is a type of backup/recovery media?  
(p. 348)
- A. DVD
  - B. Tape
  - C. Disk
  - D. All of the above**

All of the above are types of backup/recovery media.

Chapter - Chapter 11 #28  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

29. What is the primary difference between the different types of backup/recovery media?  
(p. 348)
- A. Speed
  - B. Cost
  - C. Expense
  - D. All of the above**

All of the above are the differences between the different types of media.

Chapter - Chapter 11 #29  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

30. What type of backup strategy would you recommend to an organization that deals with large volumes of critical information?  
(p. 348)
- A. Hourly**
  - B. Daily
  - C. Weekly
  - D. Monthly

An organization that deals with large volumes of critical information will require an hourly backup strategy.

Chapter - Chapter 11 #30  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

31. What type of backup strategy would you recommend to an organization that deals with small amounts of non-critical information?  
(p. 349)
- A. Hourly
  - B. Daily
  - C. Weekly**
  - D. All of the above

An organization that deals with small amounts of non-critical information will require a weekly backup strategy.

Chapter - Chapter 11 #31  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

32. What does the disaster recovery cost curve chart?  
(p. 349-350)
- A. The cost to the organization of the unavailability of information
  - B. The cost to the organization of recovering from a disaster over time
  - C. The cost to the organization of the unavailability of technology
  - D. All of the above**

These are the definitions of disaster recovery cost curve.

Chapter - Chapter 11 #32  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

33. What is a separate facility that does not have any computer equipment, but is a place where employees can move after the disaster?  
(p. 349)
- A. Disaster recovery plan
  - B. Disaster recovery cost curve
  - C. Hot site
  - D. Cold site**

This is the definition of cold site.

Chapter - Chapter 11 #33  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

34. Which of the following is not a characteristic of a solid infrastructure architecture?  
(p. 352)
- A. Flexibility
  - B. Scalability
  - C. Integrity**
  - D. Performance

Integrity is not a characteristic of a solid infrastructure architecture.

Chapter - Chapter 11 #34  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

35. What ensures all systems are functioning correctly and providing accurate information?  
(p. 353) **A.** Reliability  
B. Availability  
C. Flexibility  
D. Performance

This is the definition of reliability.

Chapter - Chapter 11 #35  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

36. What addresses the timeframes when systems can be accessed by employees, customers, and partners?  
(p. 353) A. Reliability  
**B.** Availability  
C. Flexibility  
D. Performance

This is the definition of availability.

Chapter - Chapter 11 #36  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

37. What measures how quickly a system performs a certain process or transaction in terms of efficiency  
(p. 354) IT metrics of both speed and throughput?  
A. Reliability  
B. Availability  
C. Flexibility  
**D.** Performance

This is the definition of performance.

Chapter - Chapter 11 #37  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

38. A widely held but difficult-to-achieve standard of availability for a system or product is known as  
(p. 353) \_\_\_\_\_.  
A. five 8s  
B. three 9s  
C. four 9s  
**D.** five 9s

A widely held but difficult-to-achieve standard of availability for a system or product is known as "five 9s" (99.999 percent) availability.

Chapter - Chapter 11 #38  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

39. Availability is typically measured relative to \_\_\_\_\_.
- (p. 353)
- A. 100 percent operational
  - B. never failing
  - C.** all of the above
  - D. none of the above

Availability is typically measured relative to "100 percent operational" or "never failing."

Chapter - Chapter 11 #39  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

40. What is an open system?
- (p. 356)
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers
  - C A broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D.** Any program whose source code is made available for use or modification as users or other developers see fit.

This is the definition of open source.

Chapter - Chapter 11 #40  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

41. Web services are based on \_\_\_\_\_ language for documents containing structured information?
- (p. 360)
- A. Formula Translation
  - B.** Extensible Markup
  - C. Common Business Oriented
  - D. Java

Technically, Web services are based on *Extensible Markup Language (XML)*, a markup language for documents containing structured information.

Chapter - Chapter 11 #41  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium

42. What is loose coupling?
- (p. 358)
- A Contains a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services
  - B** The capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.
  - C A broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them
  - D. The capability of two or more computer systems to share data and resources, even though they are made by different manufacturers

This is the definition of loose coupling.

Chapter - Chapter 11 #42  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

43. What are the technical concepts of SOA?  
(p. 358)
- A. Services as business tasks
  - B. Interoperability, the capability of two or more computer systems to share data and resources
  - C. Loose coupling, the capability of services to be joined together on demand to create composite services or disassembled just as easily into their functional components,
  - D.** All of the above.

These are the technical concepts of SOA.

Chapter - Chapter 11 #43  
Gradable: automatic  
Learning Outcome: 11.9  
Level: Easy

44. What are the regulatory issues concerning international telecommunications?  
(p. 347)
- A. Dealing with trans-border data flow restrictions
  - B. Managing international telecommunication regulations
  - C. Handling international politics
  - D.** All of the above.

These are the regulatory issues (Figure 11.2).

Chapter - Chapter 11 #44  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

45. Which one of the following is not a regulatory issue concerning international telecommunications?  
(p. 347)
- A. Dealing with trans-border data flow restrictions
  - B.** Improving operational efficiency of networks
  - C. Managing international telecommunication regulations
  - D. Handling international politics

Refer to Figure 11.2.

Chapter - Chapter 11 #45  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

46. What are the top international telecommunications issues that are network related?  
(p. 347)
- A. Improving operational efficiency of networks
  - B. Dealing with different networks
  - C. Controlling data communication security
  - D.** All of the above.

These are the network issues (Figure 11.2).

Chapter - Chapter 11 #46  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

47. Which one of the following is not a network issue related to international telecommunications?  
(p. 347) **A.** Handling international politics  
B. Improving operational efficiency of networks  
C. Dealing with different networks  
D. Controlling data communication security

These are the network issues (Figure 11.2).

Chapter - Chapter 11 #47  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

48. What are the top international telecommunications issues that are technology and country-oriented?  
(p. 347) A. Managing network infrastructure across countries  
B. Managing international integration of technologies  
C. Dealing with international tariff structures  
**D.** All of the above.

These are the technology and country-oriented issues (Figure 11.2).

Chapter - Chapter 11 #48  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

49. Organizations should not choose a backup and recovery strategy that is in line with its business goals  
(p. 348) **FALSE**

Organizations should choose a backup and recovery strategy that is in line with its business goals

Chapter - Chapter 11 #49  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

50. Virtualization is a framework of dividing the resources of a computer into multiple execution environments.  
(p. 361) **TRUE**

Virtualization is a framework of dividing the resources of a computer into multiple execution environments.

Chapter - Chapter 11 #50  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium

51. Storm computing is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."  
(p. 367) **FALSE**

Cloud computing is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."

Chapter - Chapter 11 #51  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

52. Cloud computing offsets the need for organizations to purchase software and software licenses for applications.

(p. 367)

**TRUE**

Cloud computing offsets the need for organizations to purchase software and software licenses for applications.

Chapter - Chapter 11 #52  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

53. One of the advantages of the cloud computing approach is the loss of control over the applications that are used.

(p. 367)

**FALSE**

One of the disadvantages of the cloud computing approach is the loss of control over the applications that are used.

Chapter - Chapter 11 #53  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

54. Many corporate executives are hesitant to take advantage of cloud computing because of the lack of control over their company's data and information.

(p. 367)

**TRUE**

Many corporate executives are hesitant to take advantage of cloud computing because of the lack of control over their company's data and information.

Chapter - Chapter 11 #54  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

55. Web services are the capability of two or more computer systems to share data and resources, even though they are made by different manufacturers.

(p. 358)

**FALSE**

Interoperability is the capability of two or more computer systems to share data and resources, even though they are made by different manufacturers.

Chapter - Chapter 11 #55  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

56. Infrastructure architecture identifies where and how important data, like customer records, is maintained and secured.

(p. 348)

**FALSE**

Data architecture identifies where and how important data, like customer records, is maintained and secured.

Chapter - Chapter 11 #56  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

57. (p. 349) Fault tolerance is a computer system designed that in the event a component fails, a backup component or procedure can immediately take its place with no loss of service. Fault tolerance can be provided with software, or embedded in hardware, or provided by some combination  
**TRUE**

This is the definition of fault tolerance.

Chapter - Chapter 11 #57  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

58. (p. 352) The primary characteristics of a solid infrastructure include flexibility, scalability, reliability, availability, and performance.  
**TRUE**

These are the five characteristics of a solid infrastructure.

Chapter - Chapter 11 #58  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

59. (p. 360) Technically, Web services are based on *Extensible Markup Language (XML)*, a markup language for documents containing structured information.  
**TRUE**

Technically, Web services are based on *Extensible Markup Language (XML)*, a markup language for documents containing structured information.

Chapter - Chapter 11 #59  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Easy

60. (p. 358) Loose coupling is the capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.  
**TRUE**

Loose coupling is the capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.

Chapter - Chapter 11 #60  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

61. (p. 348) Organizations should choose a \_\_\_\_\_ and recovery strategy that is in line with its business goals  
**Backup**

Chapter - Chapter 11 #61  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

62. (p. 361) \_\_\_\_\_ is a framework of dividing the resources of a computer into multiple execution environments.  
**Virtualization**

Chapter - Chapter 11 #62  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Medium

63. \_\_\_\_\_ is a form of client/server computing operating over the Internet where the term "cloud" is used as a metaphor for the term "Internet."

**Cloud computing**

Chapter - Chapter 11 #63  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Medium

64. \_\_\_\_\_ offsets the need for organizations to purchase software and software licenses for applications.

**Cloud computing**

Chapter - Chapter 11 #64  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

65. One of the \_\_\_\_\_ of the cloud computing approach is the loss of control over the applications that are used.

**disadvantages**

Chapter - Chapter 11 #65  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

66. Many corporate executives are hesitant to take \_\_\_\_\_ of cloud computing because of the lack of control over their company's data and information

**advantage**

Chapter - Chapter 11 #66  
Gradable: automatic  
Learning Outcome: 11.5  
Level: Medium

67. \_\_\_\_\_ architectures include the plans for how an organization will build, deploy, use, and share its data, processes, and IT assets.

**Enterprise**

Chapter - Chapter 11 #67  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Easy

68. \_\_\_\_\_ architecture determines how applications integrate and relate to each other.

**Application**

Chapter - Chapter 11 #68  
Gradable: automatic  
Learning Outcome: 11.1  
Level: Easy

69. A(n) \_\_\_\_\_ site is a separate and fully equipped facility where the company can move immediately after a disaster and resume business.

**Hot**

Chapter - Chapter 11 #69  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

70. A(n) \_\_\_\_\_ site is a separate facility that does not have any computer equipment, but is a place where employees can move after the disaster.

**Cold**

Chapter - Chapter 11 #70  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

71. \_\_\_\_\_ ensured all systems are functioning correctly and providing accurate information.

**Reliability**

Chapter - Chapter 11 #71  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

72. \_\_\_\_\_ is a backup operational mode in which the functions of a computer component (such as a processor, server, network, or database) is assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time.

**Failover**

Chapter - Chapter 11 #72  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

73. Managing \_\_\_\_\_ access to information is a critical piece of the data architecture.

(p. 351) **User**

Chapter - Chapter 11 #73  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Hard

74. \_\_\_\_\_ refers to how well a system can adapt to increased demands.

(p. 353) **Scalability**

Chapter - Chapter 11 #74  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

75. Technically, Web services are based on \_\_\_\_\_ language for documents containing structured information.

(p. 360) **Extensible Markup**

Chapter - Chapter 11 #75  
Gradable: automatic  
Learning Outcome: 11.3  
Level: Easy

76. \_\_\_\_\_ is the capability of services to be joined together on demand to create composite services, or disassembled just as easily into their functional components.

(p. 358) **Loose coupling**

Chapter - Chapter 11 #76  
Gradable: automatic  
Learning Outcome: 11.2  
Level: Easy

77. Explain the three components of an enterprise architecture.

(p. 348)

Basic enterprise architectures contain three components. Data architecture identifies where and how important data, like customer records, is maintained and secured. Infrastructure architecture includes the hardware, software, and telecommunications equipment that, when combined, provide the underlying foundation to support the organization's goals. Application architecture determines how applications integrate and relate to each other.

Chapter - Chapter 11 #77  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy

78. Describe how an organization can implement a solid data architecture.

(p. 348)

A data architecture identifies where and how important data, like customer records, is maintained and secured. Three primary areas an enterprise information architecture should focus on are backup and recovery, disaster recovery, and security.

Chapter - Chapter 11 #78  
Gradable: manual  
Learning Outcome: 11.8  
Level: Easy

79. List and describe the five qualities of an infrastructure architecture.  
(p. 352)

Infrastructure architecture includes the hardware, software, and telecommunications equipment that, when combined, provide the underlying foundation to support the organization's goals. The following are the five primary characteristics of a solid infrastructure architecture, flexibility, scalability, reliability, availability, and performance.

*Chapter - Chapter 11 #79  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy*

80. Compare Web services and open systems.  
(p. 354-356)

Web services contain a repertoire of Web-based data and procedural resources that use shared protocols and standards permitting different applications to share data and services. Interoperability is the capability of two or more computer systems to share data and resources, even though they are made by different manufacturers. An open system is a broad, general term that describes nonproprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them.

*Chapter - Chapter 11 #80  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy*

81. List and describe the three primary steps an organization can take to protect its systems from disasters and catastrophes.  
(p. 348)

(1) Develop an appropriate backup and recovery strategy. (2) Create a disaster recovery plan. (3) Create data security plan.

*Chapter - Chapter 11 #81  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy*

82. Define backup and recovery and explain the importance of the disaster recovery cost curve to an organization.  
(p. 348)

Backup is an exact copy of a system's information. Recovery is the ability to get a system up and running in the event of a system crash or failure and includes restoring the information backup. Disaster recovery cost curve charts (1) the cost to the organization of the unavailability of information and technology and (2) the cost to the organization of recovering from a disaster over time.

*Chapter - Chapter 11 #82  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy*

83. List and describe the five characteristics of a solid infrastructure architecture.  
(p. 352-354)

(1) Flexibility-systems must meet all types of business changes. (2) Scalability-refers to how well a system can adapt to increased demands. (3) Reliability-ensures all systems are functioning correctly and providing accurate information. (4) Availability-addresses when systems can be accessed by employees, customers, and partners. (5) Performance-measures how quickly a system performs a certain process or transaction in terms of efficiency IT metrics of both speed and throughput.

*Chapter - Chapter 11 #83  
Gradable: manual  
Learning Outcome: 11.2  
Level: Easy*

84. Discuss three architecture trends that are quickly becoming requirements for all businesses.  
(p. 357)

The four architecture trends that are quickly becoming requirements for all businesses including: Service Oriented Architectures, Virtualization, Grid Computing, and Cloud Computing.

*Chapter - Chapter 11 #84  
Gradable: manual  
Learning Outcome: 11.2  
Level: Medium*

85. Distinguish between open system and open source.  
(p. 356)

An ***open system*** is a broad, general term that describes non-proprietary IT hardware and software made available by the standards and procedures by which their products work, making it easier to integrate them. In general, ***open source*** refers to any program whose source code is made available for use or modification as users or other developers see fit.

*Chapter - Chapter 11 #85  
Gradable: manual  
Learning Outcome: 11.2  
Level: Medium*

# 11 Summary

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