

Chapter 2

Application Layer

True-False Questions

The following are possible True/False questions for tests. The statement is given and the answer is provided. The level of difficulty (easy, medium, hard), the reference section relevant to the topic, and learning objective are also furnished.

1. An application architecture is the way in which the functions of the application layer are performed solely by the clients in the network.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

2. The five general functions of any application program are: data storage, data access logic, application logic, presentation logic, and Internet interface.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

3. A server farm is a group of computers that are linked together so they act as a one computer.

Answer: True
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

4. Host-based and client-based networks are similar in that the client computer performs most of the work.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

5. The earliest data communications networks were client-server networks.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

6. As the demand for more and more network applications grow; host-based computing becomes the best solution.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

7. Your typical web browsing scenario where a person using a web browser accesses a web page from a server on the Internet is a good example of a client-server application architecture.

Answer: True
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

8. In a client-server network, the presentation logic is the responsibility of the client computer.

Answer: True
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

9. The two functions of middleware are to: 1) provide a standard way of communicating that can translate between software from different vendors, and 2) manage the message transfer between clients and servers so that clients do not need to 'know' which server contains the application's data.

Answer: True
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

10. Middleware is the software that sits between the application software on the client and the application software on the server.

Answer: True
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

11. In the three-tier architecture, the software on the client computer is responsible for the presentation logic, an application server is responsible for the application logic and a separate database server is responsible for the data access logic and data storage.

Answer: True
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

12. A “thin client” approach places most of the application logic on the client.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

13. The application architecture called the distributed computing model uses the “thick” client approach.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

14. Scalability refers to the ability to increase or decrease the capacity of the computing infrastructure in response to changing capacity needs.

Answer: True
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

15. To use the Web, each client computer requires a data link layer software package called a Web browser.

Answer: False
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

16. The standard protocol for communication between a Web browser and a Web server is the web protocol.

Answer: False
Difficulty: Medium
Reference: World Wide Web
L.O.: Understand how the Web works

17. The World Wide Web was conceived at University of Utah as part of the development of the Internet.

Answer: False
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

18. A request header for an HTTP request starts with a command, such as GET, and ends with the HTTP version number that the browser understands.

Answer: False
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

19. All three parts (request line, request header, request body) of an HTTP request from a web browser to a web server are required when a request is made.

Answer: False
Difficulty: Medium
Reference: Electronic Mail
L.O.: Understand how email works

20. The Simple Mail Transfer Protocol is the least commonly used e-mail standard.

Answer: False
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

21. The two-tier e-mail architecture does not require any application software on the client computer.

Answer: False
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

22. Using the POP standard for client to server e-mail communication, the e-mail messages remain on the server computer.

Answer: False
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

23. Web-based e-mail like Gmail is an example of three-tier client-server architecture that provides access to e-mail messages.

Answer: True
Difficulty: Medium
Reference: Electronic Mail
L.O.: Understand how email works

24. The fundamental problem in client-based networks is that all data on the server must travel to the client for processing.

Answer: True
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

25. Cloud-hosted virtual desktops are now available through a service called DaaS allowing users to access the same client computer (virtual desktop) from any computer and any location.

Answer: True
Difficulty: Medium
Reference: Other Applications
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

26. There are four general functions of any application program.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

27. For an application program, the services logic is the user interface.

Answer: False
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

28. Cloud computing is just outsourcing.

Answer: True
Difficulty: Easy
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

29. There are only a handful of products one can choose from to do a webcast.

Answer: False
Difficulty: Easy
Reference: Other Applications
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

30. Telnet requires an application layer program on the client computer and an application layer program on the server or host computer.

Answer: True
Difficulty: Easy
Reference: Other Applications
L.O.: Be aware of how Telnet and instant messaging works

31. Telnet poses no security threat.

Answer: False
Difficulty: Easy
Reference: Other Applications
L.O.: Be aware of how Telnet and instant messaging works

32. Telnet is a fairly modern standard.

Answer: False
Difficulty: Easy
Reference: Other Applications
L.O.: Be aware of how Telnet and instant messaging works

33. Telnet encrypts keystrokes that are sent over the network.

Answer: False
Difficulty: Easy
Reference: Other Applications
L.O.: Be aware of how Telnet and instant messaging works

34. One program that conforms to the Telnet standard is PuTTY.

Answer: True
Difficulty: Easy
Reference: Other Applications
L.O.: Be aware of how Telnet and instant messaging works

35. With respect to costs for a client-server network, personal computers used as clients in a client-server network cost about the same as mainframes for the same amount of computing power.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

36. With respect to costs for a client-server network, more network capacity, which costs more money, is required for client-server networks than for client-based networks.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

37. With respect to costs for a client-server network, experts believe that client server architectures can be complex, but that developing application software for host based architectures is usually cheaper.

Answer: True
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

38. With respect to costs for a client-server network, updating the network with new version of software tends to be less expensive in a client-server network since the software is centralized in one client.

Answer: False
Difficulty: Medium
Reference: Application Architectures
L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

MULTIPLE CHOICE

The following are possible multiple-choice questions for tests. The question is posed and the answer is provided under the choices. The level of difficulty (easy, medium, hard), the reference section relevant to the topic, and learning objective are also furnished.

1. A(n) _____ is the way in which the functions of the application layer software are spread among the clients and servers in the network.
- a. anonymous FTP
 - b. data access logic
 - c. fat client
 - d. application architecture
 - e. response status architecture

Answer: d

Difficulty: Easy

Reference: **Application Architectures**

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

2. A _____ is a very large general-purpose computer that is capable of performing *very many* functions as if these are done simultaneously, and storing *extremely large* amounts of data.
- a. workstation
 - b. transaction terminal
 - c. cluster
 - d. mainframe
 - e. personal computer

Answer: d

Difficulty: Easy

Reference: **Application Architectures**

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

3. A _____ is a group of computers linked together so that they appear to act as one computer.

- a. workstation
- b. transaction terminal
- c. server farm
- d. network computer
- e. transaction terminal

Answer: c

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

4. With the two-tier client-server architecture, the server is responsible for the _____ logic.

- a. application
- b. presentation
- c. data access
- d. session
- e. physical

Answer: c

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

5. Which of the following is **not** a general function by any application program?

- a. data storage
- b. data access logic
- c. application logic
- d. presentation logic
- e. application access storage

Answer: e

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

6. _____ is an application program function that deals with storing and retrieving data.

- a. Data storage
- b. Data access logic
- c. Application logic
- d. Presentation logic
- e. Application access storage

Answer: a

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

7. An application program function is _____, or the processing required to access data.

- a. data storage
- b. data access logic
- c. application logic
- d. presentation logic
- e. application access storage

Answer: b

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

8. _____, or the algorithms or business logic programmed into the application, can be simple or complex depending on the application.

- a. Data storage
- b. Data access logic
- c. Application logic
- d. Presentation logic
- e. Application access storage

Answer: c

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

9. _____ is the presentation of information to the user and the acceptance of the user's commands.

- a. Data storage
- b. Data access logic
- c. Application logic
- d. Presentation logic
- e. Application access storage

Answer: d

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

10. One underlying problem with a host-based network is that:

- a. there are economies of scale because all computer resources are centralized.
- b. the server can get overloaded since it must process all messages.
- c. the architecture is relatively simple and works well.
- d. the server is the one point of control which simplifies security.
- e. clients (terminals) do not require sophisticated hardware/software because they do not perform most of the work in this type of architecture.

Answer: b

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

11. With a client-based network, one fundamental problem is that:

- a. the clients each must store all the data.
- b. the server does not have any data storage capability.
- c. the host or server must perform presentation logic, application logic, and data access logic at the same time.
- d. all data on the server must travel to the client for processing.
- e. the clients must perform the data storage logic.

Answer: d

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

12. With the two-tier client-server architecture, the client is responsible for the _____ logic.

- a. session
- b. presentation
- c. data access
- d. data storage
- e. networking

Answer: b

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

13. Client-server architectures:

- a. cannot connect computers that use different hardware
- b. are one of the least used network architectures today
- c. can use middleware to provide a standard way of communicating between software from more than one vendor
- d. assign the responsibility for the presentation logic to the server
- e. were the earliest type of network architectures

Answer: c

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

14. How are the application architecture functions split up in a client-server network?

- a. the presentation logic and data storage are on the client, while the data access logic is on the server
- b. the data storage, data access, and presentation logic are on the client
- c. the presentation logic is on the client, while the data storage and data access logic are on the server
- d. the data storage and data access logic are on the client, while the presentation logic are on the server
- e. the presentation logic and data access logic are on the client, and the data storage is on the server

Answer: c

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

15. In a client-server network, _____ gets software from different vendors to work together.

- a. a front-end processor
- b. serverware
- c. middleware
- d. centerware
- e. programmer

Answer: c

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

16. _____ is **not** an important middleware standard.

- a. CORBA (Common Object Request Broker Architecture)
- b. Distributed Computed Environment (DCE)
- c. Asynchronous Transfer Mode (ATM)
- d. Open Database Connectivity (ODBC)
- e. none of the above is an appropriate answer

Answer: c

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

17. A(n) _____-tiered architecture uses only two sets of computers: one set of clients and one set of servers.

- a. one
- b. two
- c. three
- d. five
- e. n

Answer: b

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

18. In the three tier architecture, the software on the client computer is responsible for the _____.

- a. presentation logic
- b. application logic
- c. data access logic
- d. data storage
- e. application storage

Answer: A

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

19. An n-tier architecture:

- a. is generally more “scalable” than a three-tiered architecture.
- b. is generally less “scalable” than a three-tiered architecture.
- c. uses only two sets of computers in which the clients are responsible for the application and presentation logic, and the servers are responsible for the data.
- d. uses exactly three sets of computers in which the client is responsible for presentation, one set of servers is responsible for data access logic and data storage, and application logic is spread across two or more different sets of servers.
- e. puts less load on a network than a two-tiered architecture because there tends to be less communication among the servers.

Answer: a

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

20. One disadvantage of the _____ architecture is that places a greater load on the network.

- a. one-tier
- b. two-tier
- c. three-tier
- d. n-tier
- e. layered

Answer: d

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

21. A “thin client” architecture approach:

- a. always is a two-tier network architecture
- b. always is an n-tiered architecture
- c. places all or almost all of the application logic on the client
- d. places all or almost all of the application logic on the server
- e. refers to the size of the cable connecting the clients to the network

Answer: d

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

22. A “thick client” architecture approach:

- a. always is a two-tier network architecture
- b. always is an n-tiered architecture
- c. places all or almost all of the application logic on the client
- d. places all or almost all of the application logic on the server
- e. refers to the size of the cable connecting the clients to the network

Answer: c

Difficulty: Easy

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

23. With the “thin client” architecture, when an application changes, only the _____ with the application logic needs to be updated.

- a. client
- b. server
- c. middleware
- d. hardware
- e. software

Answer: b

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

24. With respect to costs for a client-server network, which of the following is true?

- a. Personal computers used as clients in a client-server network cost about the same as mainframes for the same amount of computing power.
- b. More network capacity, which costs more money, is required for client-server networks than for client-based networks.
- c. Experts believe that client server architectures can be complex, but that developing application software for host based architectures is usually cheaper.
- d. Updating the network with new version of software tends to be less expensive in a client-server network since the software is centralized in one client.
- e. None of the above

Answer: c

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

25. The idea for a special hypertext network, called the World Wide Web, was conceived of by:

- a. Microsoft in 1994 as part of the Windows 95 project
- b. Tim Berners-Lee at the European Laboratory for Particle Physics (CERN) in 1989
- c. Vinton Cerf, for the U.S. Department of Defense in 1969 as a network of four computers called ARPANET
- d. Howard Flieshman of IBM in 1982 as part of the development of the IBM PC
- e. the University of Minnesota as an extension of Gopher

Answer: b
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

26. Marc Andreessen led a team that developed the first graphical Web browser, which was called:

- a. Internet Explorer
- b. Mosaic
- c. Firebird
- d. Netscape Navigator
- e. Mozilla

Answer: b
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

27. To interact with the World Wide Web, a client computer needs an application layer software package called a:

- a. web browser
- b. web server
- c. telnet package
- d. uniform resource locator package
- e. router package

Answer: a
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

28. Each server on a network that needs to act as a web server needs an application layer software package called a (n) _____.

- a. browser
- b. application web
- c. web server
- d. operating system
- e. none of the above

Answer: c
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

29. To get a page from the Web, a user must type in a URL, which stands for:

- a. Unknown Resource Locator
- b. Unknown Router Location
- c. Uniform Router Location
- d. Uniform Resource Locator
- e. Uniform Resource Library

Answer: d
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

30. The protocol that makes it possible for a Macintosh web browser to be able to retrieve a Web page from a Microsoft Web server is called the _____.

- a. Hypertext Transfer Protocol
- b. File Transfer Protocol
- c. Simple Mail Transfer Protocol
- d. Internet Message Access Protocol
- e. Hyperlink Transfer Protocol.

Answer: a
Difficulty: Medium
Reference: World Wide Web
L.O.: Understand how the Web works

31. There are optional and required parts of an HTTP request. They are:

- a. request address, request body
- b. request address, request header, request body
- c. request line, request header
- d. request line, request body
- e. request line, request header, request body

Answer: e
Difficulty: Medium
Reference: World Wide Web
L.O.: Understand how the Web works

32. There are required and optional parts of an HTTP response. They are:

- a. response status, response header, response body
- b. response address, response header, response body
- c. response status, response body
- d. response address, response header
- e. response status, response header

Answer: a
Difficulty: Medium
Reference: World Wide Web
L.O.: Understand how the Web works

33. A response status code of 404 means:

- a. the requested page was not found
- b. the server is currently unavailable
- c. the sever is currently busy
- d. your browser is incompatible with the Web server software.
- e. your browser needs to be updated to the latest version.

Answer: a
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

34. The acronym, HTML, refers to:

- a. Header Markup Language
- b. Hypertext Markup Locator
- c. Hypertext Markup Language
- d. Hypertext Markup Library
- e. Hypertext Modulating Language

Answer: c
Difficulty: Easy
Reference: World Wide Web
L.O.: Understand how the Web works

35. The most commonly used e-mail standard is:

- a. Simple Mail Transfer Protocol
- b. X.400
- c. CMC
- d. Post Office Protocol
- e. Telnet

Answer: a
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

36. In a two-tier client-server architecture, a client computer needs to use an application layer software package called a _____ to send e-mail:

- a. message transfer agent
- b. router agent
- c. mail user agent
- d. Webcast package
- e. gateway agent

Answer: c
Difficulty: Medium
Reference: Electronic Mail
L.O.: Understand how email works

37. Which of the following is **not** an example of a mail user agent software package?

- a. Outlook Express
- b. Microsoft Word
- c. Eudora
- d. Microsoft Outlook
- e. All of these are mail user agent packages

Answer: b
Difficulty: Medium
Reference: Electronic Mail
L.O.: Understand how email works

38. Another term for a mail user agent is:

- a. message transfer agent
- b. router agent
- c. e-mail client
- d. Webcast package
- e. Web client

Answer: c
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

39. IMAP (Internet Message Access Protocol):

- a. is a set of standards that define how email is to be processed between mail servers
- b. is exactly the same as SMTP
- c. copies an e-mail message from the client computer's hard disk, deletes it from the client, and stores it on the mail server
- d. is exactly the same as POP
- e. permits an e-mail message to remain stored on the mail server even after they have been read by a client computer

Answer: e
Difficulty: Easy
Reference: Electronic Mail
L.O.: Understand how email works

40. In a _____ architecture, computers are both client and server, thus sharing the work.

- a. Host-based
- b. Client-based
- c. Client-server
- d. Peer-to-peer
- e. Network

Answer: d

Difficulty: Medium

Reference: Application Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

41. The acronym, MIME, refers to:

- a. Multimedia Internet Mail Enterprise
- b. Multiple Internet Media Extension
- c. Multipurpose Internet Mail Extension
- d. Media Internet Mail Extension
- e. Multimedia Internet Mime Extension

Answer: c

Difficulty: Easy

Reference: Electronic Mail

L.O.: Understand how email works

42. One of the most frequently used Telnet applications is

- a. WS-FTP
- b. PuTTY
- c. Outlook
- d. Word
- e. FTP

Answer: b

Difficulty: Medium

Reference: Other Applications

L.O.: Be aware of how Telnet and instant messaging works

43. What technique is used by most videoconferencing applications to reduce the amount of data being transmitted?

- a. hashing
- b. encryption
- c. authentication
- d. identification
- e. compression

Answer: e

Difficulty: Medium

Reference: Other Applications

L.O.: Be aware of how Telnet and instant messaging works

44. Which of the following is **not** true about Telnet?

- a. Telnet requires an application layer program on the client computer and an application layer program on the server or host computer.
- b. Telnet poses no security threat.
- c. Telnet was designed in the early days of the Internet.
- d. Keystrokes are sent over the network in clear text.
- e. One program that conforms to the Telnet standard is PuTTY.

Answer: b

Difficulty: Medium

Reference: Other Applications

L.O.: Be aware of how Telnet and instant messaging works

45. _____ is a special type of one directional; videoconferencing in which content is sent from the server to the user.

- a. Broadcasting
- b. Instant messaging
- c. Webcasting
- d. H.323
- e. Net Meeting.

Answer: c

Difficulty: Medium

Reference: Other Applications

L.O.: Be aware of how Telnet and instant messaging works

46. In a host-based system with a mainframe, upgrades to the host are _____.

- a. Small
- b. Cheap
- c. Lumpy
- d. Never going to happen
- e. Always performed annually

Answer: c

Difficulty: Easy

Reference: Application Architecture

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

47. The software that runs on the mail server is referred to as the _____

- a. Mail transfer agent
- b. Mail user agent
- c. Microsoft Outlook
- d. Web server
- e. SMTP

Answer: A

Difficulty: Easy

Reference: Electronic Mail

L.O.: Understand how email works

48. The standards H.320, H.323, and MPEG-2 are commonly used with

- a. Telnet
- b. Videoconferencing
- c. Email
- d. IM
- e. Microsoft Office

Answer: B

Difficulty: Medium

Reference: Other Applications

L.O.: Be aware of how Telnet and instant messaging works

49. The _____ cloud deployment model provides the highest levels of control, privacy and security.

- a. private
- b. public
- c. community
- d. hybrid
- e. Amazon (AWS)

Answer: a

Difficulty: Easy

Reference: Application Architecture

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

50. The _____ clouds realize the benefits from cloud infrastructure (such as speed of deployment) with the added level of privacy and security that private clouds offer.

- a. private
- b. public
- c. community
- d. hybrid
- e. Amazon (AWS)

Answer: c

Difficulty: Easy

Reference: Application Architecture

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

51. With _____, the cloud provider manages the hardware including servers, storage, and networking components. The organization is responsible for all the software, including operating system (and virtualization software), database software, and its applications and data.

- a. private clouds
- b. hardware clouds
- c. storage services
- d. IaaS
- e. Amazon (AWS)

Answer: d

Difficulty: Easy

Reference: Application Architecture

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures

52. In this type of cloud model, the cloud provider manages the hardware, while the organization is responsible for everything else.

- a. platform as a service
- b. infrastructure as a service
- c. software as a service
- d. servers as a service

Answer: b

Difficulty: Easy

Reference: Cloud Computing Architectures

L.O.: Understand host-based, client-based, client-server, cloud-based, and peer-to-peer application architectures