

**Modern Systems Analysis and Design, 8e (Valacich/George)**  
**Chapter 2 The Origins of Software**

1) What is the practice of a company running a computer application for another organization?

- A) Outsourcing
- B) Information Technology Development
- C) In-house Payroll System
- D) Reusing

Answer: A

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

2) Which of the following companies did Shell NOT outsource any of its operations to?

- A) EDS
- B) IBM
- C) Accenture
- D) Nokia

Answer: D

Difficulty: Moderate

AACSB: Reflective Thinking

LO: 2.1 Explain outsourcing

Classification: Concept

3) Which of the following is a reason why a company may outsource certain operations?

- A) Decrease process efficiencies
- B) Outsource noncore activities
- C) Increase time to market
- D) Keep the information technology staff from being bored

Answer: B

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

4) What is one action that can happen if a company outsources all of their IT?

- A) The IT employees can sue.
- B) The IT employees take on different projects in the company.
- C) The IT employees are fired.
- D) The company re-hires the IT employees.

Answer: C

Difficulty: Moderate

AACSB: Reflective Thinking

LO: 2.1 Explain outsourcing

Classification: Concept

5) \_\_\_\_\_ is the practice of turning over responsibility of some to all of an organization's information systems applications and operations to an outside firm.

- A) Outsourcing
- B) Reuse
- C) Nearshoring
- D) Time to market

Answer: A

Difficulty: Moderate

AACSB: Reflective Thinking

LO: 2.1 Explain outsourcing

Classification: Concept

6) Which of the following is a reason why an organization might get rid of its entire information processing unit?

- A) To hire better IT staff
- B) Because the old system does not work anymore
- C) Because management does not like the IT department
- D) Because of political reasons

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

7) What is the practice of US firms contracting with countries in Latin America?

- A) Nearshoring
- B) Offshoring
- C) Nextshoring
- D) Neighbor redevelopment

Answer: A

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

8) Choose the list that represents the top three countries that are used for outsourcing as of 2014.

- A) India, Asia, and Brazil
- B) India, China, and Malaysia
- C) Bulgaria, China, and Mexico
- D) Mexico, Egypt, and China

Answer: B

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

9) Which of the following is NOT a major category of sources of software?

- A) Offshore
- B) Cloud computing vendors
- C) In-house developers
- D) Package software

Answer: A

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

10) Mexico is often seen as a common alternative to India for outsourcing.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

11) Because open source software is free, it is impossible to make money with it.

Answer: FALSE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

12) Today's system analysts only have a few languages to choose from when creating applications.

Answer: FALSE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

13) A component of outsourcing is development of applications outside of the organization.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

14) The first administrative information system was developed in the United States by J. Lyons & Sons.

Answer: FALSE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

15) Concerning outsourcing, some companies only supply the inputs and outputs.

Answer: TRUE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

16) When an organization outsources to a company, the company fires the employees of the original organization.

Answer: FALSE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

17) Companies outsource their information systems because they want to reduce their time to market.

Answer: FALSE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

18) The city of Grand Rapids Michigan outsourced its computing center in order to better manage its employees.

Answer: TRUE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

19) Malaysia is in the bottom ten of countries that organization's use for outsourcing.

Answer: FALSE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

20) If a company chooses to not to outsource their information technology, their only other option is to build the systems in-house.

Answer: FALSE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

21) IT services assist organizations with developing applications for customers.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

22) Amazon.com is a leader in cloud computing services.

Answer: TRUE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

23) Intuit is an example of an IT services firm.

Answer: FALSE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

24) Microsoft is the best known software company in the world.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

25) When software companies develop prepackaged software it is called off-the-shelf systems.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

26) Oracle is a software company known for productivity software.

Answer: FALSE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

27) Software that can be modified to meet the needs of an organization are called turnkey systems.

Answer: FALSE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

28) SAP provides ERP systems.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

29) An example of cloud computing is salesforce.com.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

30) Due to security concerns, cloud computing has experienced decreased growth in recent years.

Answer: FALSE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

31) Large organizations do not use open-source software due to a lack of support and maintenance options.

Answer: FALSE

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

32) Managed reuse is a less expensive method of managing software reuse.

Answer: FALSE

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Concept

33) What is outsourcing? Identify two outsourcing arrangements. Identify two reasons for outsourcing.

Answer: Outsourcing is the practice of turning over responsibility of some to all of an organization's information systems applications and operations to an outside firm. A company may hire a third party to develop and run its applications on the third party's computers. Another alternative is for the third party to run the applications on-site and on your computers. Reasons for outsourcing include cost-effectiveness and the company's core mission does not involve managing an information systems unit.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Synthesis

34) Why would an analyst need to have an awareness of outsourcing as an alternative to handling IT services in-house?

Answer: Analysts need to be aware of outsourcing as an alternative. When generating alternative system development strategies for a system, an analyst should consult with organizations in the area that provide outsourcing services. Perhaps outsourcing the replacement system should be one of your alternatives. Knowing what your system requirements are before you consider outsourcing means that you can carefully assess how well the suppliers of outsourcing services can respond to your needs. However, should you decide not to consider outsourcing, you need to determine whether some software components of your replacement system should be purchased and not built in-house.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Synthesis

35) Why would an organization outsource information systems operations?

Answer: Outsourcing may be cost-effective. If a company specializes in running payroll for other companies, it can leverage the economies of scale it achieves from running one stable computer application for many organizations into very low prices. Outsourcing also provides a way for firms to leapfrog their current position in information systems and to turn over development and operations to outside staff who possess knowledge and skills not found internally. Other reasons for outsourcing include: freeing up internal resources, increasing the revenue potential of the organization, reducing time to market, increasing process.

Difficulty: Easy

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Synthesis

36) List development specializations and provide an example of the leading software firms for the specialty.

Answer: The leading software firms and their specialties include: IT Services (Accenture, CSC, IBM, HP); Packaged software providers (Intuit, Microsoft, Oracle, SAP AG, Symantec); Enterprise Software Solutions (Oracle, SAP AG); Cloud Computing (Amazon.com, Google, IBM, Microsoft, salesforce.com); Open source (sourceforge.net).

Difficulty: Moderate

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Synthesis

37) Describe how an IT service firm can meet the needs of an organization. Provide an example of an IT service firm.

Answer: If a company needs an information system but does not have the expertise or the personnel to develop the system in-house, and a suitable off-the-shelf system is not available, the company will likely consult an information technology services firm. IT services firms help companies develop custom information systems for internal use, or they develop, host, and run applications for customers, or they provide other services. These firms employ people with expertise in the development of information systems. Their consultants may also have expertise in a given business area. Examples of IT firms include IBM, HP, and Computer Sciences Corp.

Difficulty: Difficult

AACSB: Information Technology

LO: 2.1 Explain outsourcing

Classification: Synthesis

38) Which of the following is a function of an IT service firm?

- A) Run applications for customers
- B) Support an order entry system
- C) Rent licenses
- D) Provide open source software

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

39) Which of the following is a firm that specializes in cloud computing?

- A) Accenture
- B) Intuit
- C) Oracle
- D) Salesforce.com

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept



40) Intuit's QuickBooks is an example of what type of software?

- A) ERP software
- B) In-house software
- C) Pre-packaged software
- D) Open source software

Answer: C

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

41) \_\_\_\_\_ software solutions consist of a series of integrated modules.

- A) Quicken
- B) Cloud Computing
- C) Open Source
- D) Enterprise Resource Planning

Answer: D

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

42) Which firm is best known for its ERP software solution?

- A) SAP AG
- B) Oracle
- C) Microsoft
- D) Google

Answer: A

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

43) \_\_\_\_\_ is/are off-the-shelf software systems that cannot be modified to meet the specific, individual needs of a particular organization.

- A) In-house designs
- B) Custom software
- C) Turnkey systems
- D) Open source systems

Answer: C

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

44) \_\_\_\_\_ solutions integrate individual traditional business functions into a series of modules so that a single transaction occurs seamlessly within a single information system rather than several separate systems.

- A) Turnkey
- B) ERP
- C) IBM
- D) Consultants

Answer: B

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

45) Which solution enables a firm to integrate all parts of a business process into a unified information system?

- A) Prepackaged
- B) Off the shelf
- C) Enterprise software solutions
- D) Azure

Answer: C

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

46) If an organization is using applications rented from a third party vendor running in a remote location, they are most likely using what type of software system?

- A) ERP
- B) Mobile software
- C) Cloud computing
- D) SAP

Answer: C

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

47) Why is open source software different than the other types of software?

- A) Companies make money by offering maintenance contracts.
- B) It is available via the Internet.
- C) The source code is free.
- D) Only major corporations offer it.

Answer: C

Difficulty: Difficult

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

48) Why is open source software different than the other types of software?

- A) Companies make money by offering maintenance contracts
- B) It is available via the Internet
- C) The source code is free
- D) Only major corporations offer it

Answer: C

Difficulty: Difficult

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

49) \_\_\_\_\_ measures the difficulty of loading the software and making it operational.

- A) Ease of installation
- B) Installation viability
- C) Functionality
- D) Flexibility

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

50) Together, SAP and Oracle control about 36 percent of the \_\_\_\_\_ market.

- A) ERP
- B) Cloud computing
- C) Ad hoc reuse
- D) In-house development

Answer: A

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

51) What is the primary concern of IT managers as it relates to cloud computing?

- A) Selecting an appropriate vendor
- B) Losing control of their data
- C) Not knowing the physical location of their applications
- D) Security

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

52) Which of the following is NOT a step in the process of securing applications that an organization is migrating to the cloud?

- A) Conduct a security background check of the cloud computing organization
- B) Involve the organization's security experts
- C) Clearly define requirements
- D) Perform a risk assessment

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

53) Which of the following is NOT an example of open-source software?

- A) MySQL
- B) Excel
- C) Firefox
- D) Linux

Answer: B

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

54) When an organization has the resources and a system must be built from scratch, an organization should choose what type of software?

- A) In-house development
- B) Prepackaged software
- C) Off the shelf
- D) Open source

Answer: A

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

55) When resources and staff are available and the system must be built from scratch, a company should consider \_\_\_\_\_.

- A) Outsourcing
- B) ERP systems
- C) Cloud computing
- D) In-house developers

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Concept

56) List the six sources of software used by organizations.

Answer: Software sources can be categorized as information technology firms, packaged software providers, vendors of ERP software, cloud computing, open source, and the organization itself.

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

57) Briefly describe why systems development is more difficult now than it was in the past.

Answer: There was a time, not too long ago, when no systems analysts and no symbolic computer programming languages existed. Yet people still wrote and programmed applications for computers. Even though today's systems analyst has dozens of programming languages and development tools to work with, systems development is even more difficult now than it was 60 years ago. Then, as well as even more recently, certain issues were decided for you: If you wanted to write application software, you did it in-house and wrote the software from scratch. Today there are many different sources of software and the focus is no longer exclusively on in-house development. Instead, the focus will be on where to obtain the many pieces and components that will be combined into the application system. Code will be written to mainly make all the different pieces work together.

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

58) What are enterprise resource planning systems? How do they differ from traditional approaches? Identify three enterprise resource planning system vendors.

Answer: Enterprise resource planning systems integrate individual traditional business functions into a series of modules so that a single transaction occurs seamlessly within a single information system rather than several separate systems. ERP modules focus on business processes rather than on business functional areas. SAP AG, Oracle, and PeopleSoft, Inc. are three ERP vendors.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

59) What are the advantages and disadvantages of an ERP system?

Answer: The benefits of the enterprise solutions approach include a single repository of data for all aspects of a business process and the flexibility of the modules. A single repository ensures more consistent and accurate data, as well as less maintenance. The modules are flexible because additional modules can be added as needed once the basic system is in place. There are disadvantages to enterprise solutions software. The systems are very complex, so implementation can take a long time to complete. Organizations typically do not have the necessary expertise in-house to implement the systems, so they must rely on consultants or employees of the software vendor, which can be very expensive. In some cases, organizations must change how they do business in order to benefit from a migration to enterprise solutions.

Difficulty: Easy

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

60) What is cloud computing? What are the advantages and disadvantages of using a cloud?

Answer: Cloud computing provides a means for applications to be hosted and run for other companies by a provider. Advantages include less need for internal information technology staff, gaining access to applications faster than internal development, and achieving lower-cost access to corporate-quality applications. Some concerns are reliability, security and compliance with government regulations.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

61) Describe the advantages of a company using cloud computing?

Answer: Cloud computing is rapidly growing. There are many advantages to engaging in cloud computing. Taking the cloud computing route has its advantages. The top three reasons for choosing to go with cloud computing, all of are (1) freeing internal IT staff, (2 ) gaining access to applications faster than via internal development, and (3) achieving lower cost access to corporate-quality applications. Especially appealing is the ability to gain access to large and complex systems without having to go through the expensive and time-consuming process of implementing the systems themselves in-house. Getting your computing through a cloud also makes it easier to walk away from an unsatisfactory systems solution. Other reasons include cost effectiveness, speed to market, and better performance.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.2 Describe six different sources of software

Classification: Synthesis

62) Which of the following is NOT a common criterion when choosing off-the-shelf software?

- A) Cost
- B) Functionality
- C) Reputation of the firm
- D) Documentation

Answer: C

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

63) When considering off-the-shelf software, which choice is one of the most important criteria to consider?

- A) Vendor support
- B) Cost
- C) Flexibility
- D) Response time

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

64) If a company has a generic software need, they should consider acquiring its software from a(n) \_\_\_\_\_.

- A) In-house development
- B) Cloud sourcing
- C) Packaged software producer
- D) Using a ERP system

Answer: C

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

65) \_\_\_\_\_ refers to the tasks the software can perform and the mandatory, essential, and desired system features.

- A) Vendor support
- B) Documentation
- C) Ease of installation
- D) Functionality

Answer: D

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

66) \_\_\_\_\_ refers to how long it takes the software package to respond to the user's request in an interactive session.

- A) Vendor support
- B) Flexibility
- C) Response time
- D) Ease of installation

Answer: C

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

67) How does an organization rank criteria for choosing off the shelf software?

- A) Look at cost and then go from there.
- B) Importance depends on the organization's requirements.
- C) The organization chooses the cheapest option.
- D) It does not matter the criteria order as long as ease of installation is considered.

Answer: B

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

68) Which of the following is NOT a function of vendor support?

- A) Assistance with choosing software
- B) Includes assistance to install the software
- C) Train user and systems staff on the software
- D) Provide help as problems arise after installation

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

69) Which criterion refers to how easy it is to customize the software?

- A) Response time
- B) Flexibility
- C) Vendor support
- D) Functionality

Answer: B

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept



70) Which of the following software evaluation criteria refers to the ease with which you or the vendor can customize the software?

- A) Vendor support
- B) Documentation
- C) Response time
- D) Flexibility

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

71) How long it takes the software package to respond to the user's requests in an interactive session refers to which software evaluation criteria?

- A) Functionality
- B) Return rate
- C) Response time
- D) Flexibility

Answer: B

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

72) All of the following are ways of validating purchased software information, except \_\_\_\_\_.

- A) Reviewing software documentation and technical marketing literature
- B) Sending prospective vendors a questionnaire asking specific questions about their packages
- C) Using the software yourself and running it through a series of tests based on the criteria for selecting software
- D) Asking the manufacturer if they feel their software is best

Answer: D

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

73) The document sent to vendors asking them to propose hardware and software that will meet the requirements of your new system is called a \_\_\_\_\_.

- A) Requirements statement
- B) Request for proposal
- C) Baseline project plan
- D) Business case

Answer: B

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

74) A document provided to vendors that asks them to propose hardware and system software that will meet the requirements of a new system is called a \_\_\_\_\_.

- A) Requirements request
- B) Request for information
- C) Request for proposal
- D) Viability report

Answer: C

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

75) \_\_\_\_\_ periodically evaluate(s) software and collect(s) user opinions, thus providing a range of opinions about possible software packages.

- A) Analysts
- B) IBM
- C) Vendors
- D) Independent software testing services

Answer: D

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

76) Which of the following is a company that provides independent software testing subscription services?

- A) Auerbach Publishers
- B) IBM
- C) Google
- D) SAP

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

77) \_\_\_\_\_ refers to the use of previously written software resources, especially objects and components, in new applications.

- A) Reorganization
- B) Reuse
- C) IT vendor support
- D) Software

Answer: B

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Concept

78) Identify the most common criteria for choosing off-the-shelf software. Which two criteria would be among the most important?

Answer: The most common criteria are cost, functionality, vendor support, vendor viability, flexibility, documentation, response time, and ease of installation. Cost involves comparing the cost of developing the same system in-house to the cost of purchasing or licensing the software package. Functionality refers to the tasks the software can perform and the mandatory, essential, and desired system features. While vendor support identifies the amount of support the vendor can be expected to provide, vendor viability examines the vendor's marketplace strength. Flexibility refers to the flexibility of customizing the software. The documentation criterion examines issues relating to the user's manual, technical documentation, and cost of acquiring additional copies of the documentation. Response time questions the length of time it takes the software package to respond to the user's requests in an interactive session and how long it takes the software to complete running a job. The ease of installation criterion examines the difficulty of loading the software and making it operational. Vendor support and viability will be among the most important.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Synthesis

79) Why would an organization use the request for proposal (RFP) process?

Answer: One way to get all of the information you want about a software package is to collect it from the vendor. If all of the information is not available, you may have to submit a request for proposal (RFP) or a request for quote (RFQ) process your organization requires when major purchases are made.

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Synthesis

80) How can a company validate purchased software information?

Answer: Information about the software can be obtained from the vendor in the form of marketing literature, an RFP, and software documentation. The company can use and test the software on a trial basis; speak with current users of the software, and use independent software testing and abstracting services.

Difficulty: Easy

AACSB: Information Technology

LO: 2.3 Discuss how to evaluate off-the-shelf software

Classification: Synthesis

81) Which of the following is NOT a basic reuse software step?

A) Abstraction

B) Testing

C) Storage

D) Recontextualization

Answer: B

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

82) \_\_\_\_\_ is the software reuse step that involves the design of a reusable piece of software, starting from existing software assets or from scratch.

A) Storage

B) Facilitated reuse

C) Abstraction

D) Designed reuse

Answer: C

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

83) \_\_\_\_\_ is the software reuse step that involves making software assets available for others to use.

A) Abstraction

B) Designed reuse

C) Component based development

D) Storage

Answer: D

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

84) \_\_\_\_\_ is the software reuse step that involves making the reusable asset understandable to developers who want to use it in their systems.

- A) Recontextualization
- B) Storage
- C) Object class
- D) Component reuse library

Answer: A

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

85) What is a result of the reuse of object classes?

- A) Reduced rework
- B) Reduced defect density
- C) Increased productivity
- D) All of the above

Answer: A

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

86) Which of the following issues should be addressed when considering reuse?

- A) The current lack of a methodology for creating and clearly defining and labeling reusable components for placement in a library
- B) The lack of commitment to reuse
- C) Lack of proper training and rewards needed to promote reuse
- D) The analyst's ability in using objects

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

87) Which best describes facilitated reuses?

- A) Developers are required to practice reuse.
- B) Developers are not required to practice reuse, but are encouraged to do so.
- C) Developers practice reuse when they desire.
- D) Developers are mandated to reuse documentation.

Answer: B

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

88) Which of the following is a FALSE statement about reusing software?

- A) Reuse should increase programmer productivity.
- B) Reuse should decrease development time.
- C) Reuse should result in higher-quality software.
- D) Reuse is always expensive

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

89) Which of the following is NOT an approach that an organization can take to software reuse?

- A) Flexible reuse
- B) Facilitated reuse
- C) Ad hoc reuse
- D) Managed reuse

Answer: A

Difficulty: Difficult

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

90) The software reuse approach that allows individuals to find or develop reusable assets on their own, and has few, if any, organizational rewards for reusing assets best describes

- \_\_\_\_\_.
- A) Flexible reuse
  - B) Facilitated reuse
  - C) Ad hoc reuse
  - D) Managed reuse

Answer: C

Difficulty: Difficult

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

91) \_\_\_\_\_ is where developers are not required to practice reuse, but are encouraged to do so.

- A) Flexible reuse
- B) Facilitated reuse
- C) Ad hoc reuse
- D) Managed reuse

Answer: B

Difficulty: Difficult

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

92) Which of the following is a software reuse approach that mandates the development, sharing, and adoption of reusable assets?

- A) Flexible reuse
- B) Facilitated reuse
- C) Ad hoc reuse
- D) Managed reuse

Answer: D

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

93) The most expensive and extensive reuse approach is \_\_\_\_\_.

- A) Designed reuse
- B) Facilitated reuse
- C) Ad hoc reuse
- D) Managed reuse

Answer: A

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

94) Which of the following is an organization that hosts and runs computer applications for other companies, typically on a per use or license basis?

- A) ERP firm
- B) Cloud computing application provider
- C) The Internet
- D) A software analyst

Answer: B

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

95) Designed reuse is the most expensive approach to reuse.

Answer: TRUE

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

96) Component based development is the opposite of object-oriented development.

Answer: FALSE

Difficulty: Difficult

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Concept

97) Briefly describe the process and policies for each reuse approach.

Answer: The ad hoc approach does not have a process or policies. The facilitated approach uses incentives, an asset check-in process, and limited review before publication. The managed approach includes a reuse-adapted process, mandated with specific goals; reuse reviews and asset documentation, packaging, and certification guidelines, and specified metrics. The designed approach includes some domain analysis, reuse-oriented architecture, and specific steps to design for and with reuse.

Difficulty: Easy

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Synthesis

98) Describe the three basic steps of reuse.

Answer: Software reuse has three basic steps: abstraction, storage, and recontextualization. Abstraction involves the design of a reusable piece of software, starting from existing software assets or from scratch. Storage involves making software assets available for others to use. Once an asset has been found, recontextualization becomes important. This involves making the reusable asset understandable to developers who want to use it in their systems.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Synthesis

99) Describe the four approaches to reuse.

Answer: There are four approaches to reuse: ad-hoc, facilitated, managed, and designed. The ad hoc approach to reuse is not really an approach at all. With this approach, individuals are free to find or develop reusable assets on their own, and there are few, if any, organizational rewards for reusing assets. With facilitated reuse developers are not required to practice reuse, but they are encouraged to do so. The organization makes available some tools and techniques that enable the development and sharing of reusable assets, and one or more employees may be assigned the role of evangelist to publicize and promote the program. With managed reuse, the development, sharing, and adoption of reusable assets is mandated. The most expensive and extensive approach to reuse is designed reuse.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Synthesis



100) For each reuse approach, briefly describe its process and policies.

Answer: The ad hoc approach does not have a process or policies. The facilitated approach uses incentives, an asset check-in process, and limited review before publication. The managed approach includes a reuse-adapted process, mandated with specific goals; reuse reviews and asset documentation, packaging, and certification guidelines, and specified metrics. The designed approach includes some domain analysis, reuse-oriented architecture, and specific steps to design for and with reuse.

Difficulty: Moderate

AACSB: Information Technology

LO: 2.4 Explain reuse and its role in software development

Classification: Synthesis