Chapter 2
The Origins of Software

Multiple Choice Questions

1. Sources of software include:
   a. hardware manufacturers
   b. packaged software providers
   c. application service providers
   d. all of the above
   Answer: d  Difficulty: Med  Reference: p. 32

2. The first administrative information system was:
   a. General Motor’s order tracking system
   b. Ford Motor Company’s order tracking system
   c. General Electric’s payroll system
   d. Coca-Cola’s payroll system
   Answer: c  Difficulty: Med  Reference: p. 32

3. Which of the following is a true statement regarding in-house development?
   a. In-house development of information systems has increased by a factor of 3 in the last three years.
   b. In-house development of information systems has increased by 42 percent in the last three years.
   c. In-house development of information systems has progressively become a smaller piece of all the systems development work that takes place in and for organizations.
   d. When developing administrative systems, in-house development of information systems is still the best choice.
   Answer: c  Difficulty: Med  Reference: p. 32

4. Reasons for outsourcing include:
   a. freeing up internal resources.
   b. increasing processing efficiencies.
   c. reducing time to market.
   d. all of the above.
   Answer: d  Difficulty: Med  Reference: p. 33
5. The practice of turning over responsibility of some to all of an organization's information systems applications and operations to an outside firm is referred to as:
   a. realignment
   b. downsizing
   c. outsourcing
   d. time sharing
   **Answer:** c
   **Difficulty:** Med
   **Reference:** p. 32

6. Hiring a company to run your applications at your site on your computers is an example of:
   a. a turnkey system
   b. outsourcing
   c. downsizing
   d. realignment
   **Answer:** b
   **Difficulty:** Med
   **Reference:** p. 32

7. Which of the following are major categories of organizations that produce software?
   a. hardware manufacturers
   b. packaged software producers
   c. custom software producers
   d. all of the above
   **Answer:** d
   **Difficulty:** Easy
   **Reference:** p. 34

8. Based on 2002 total revenues, which of the following companies had the highest revenues?
   a. Accenture
   b. IBM
   c. Microsoft
   d. NTT Data Corporation
   **Answer:** b
   **Difficulty:** Med
   **Reference:** p. 34

9. Based on total revenues, which of the following companies ranks fourth?
   a. Microsoft
   b. IBM
   c. Accenture
   d. EDS
   **Answer:** c
   **Difficulty:** Hard
   **Reference:** p. 34

10. Off-the-shelf software systems that cannot be modified to meet the specific needs of a particular organization are sometimes called:
    a. custom software systems
    b. in-house developed systems
    c. turnkey systems
    d. standard systems
    **Answer:** c
    **Difficulty:** Med
    **Reference:** p. 36
11. Based on service revenue, which of the following companies is the top global software company?
   a. Compaq
   b. Microsoft
   c. Accenture
   d. EDS

   **Answer:** d  **Difficulty:** Med  **Reference:** p. 36

12. A system that integrates 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 best describes:
   a. enterprise resource planning
   b. application service
   c. storage area network
   d. packaged software

   **Answer:** a  **Difficulty:** Med  **Reference:** p. 37

13. SAP AG is a(n):
   a. hardware manufacturer
   b. application service provider
   c. enterprise solution software provider
   d. custom software producer

   **Answer:** c  **Difficulty:** Med  **Reference:** p. 37

14. Benefits of enterprise solutions do not include:
   a. the flexibility of modules
   b. ease of implementation and less implementation time
   c. being an inexpensive alternative to custom development
   d. not requiring the company to change how it does business

   **Answer:** c  **Difficulty:** Med  **Reference:** p. 37

15. When a company uses different products from different ERP vendors, as opposed to dealing with a single vendor, the company is said to have adopted a(n):
   a. custom development strategy
   b. best-of-breed strategy
   c. application service strategy
   d. packaged strategy

   **Answer:** b  **Difficulty:** Med  **Reference:** p. 37
16. Organizations that host and run computer applications for other companies, typically on a per-use or license basis best describes:

   a. hardware manufacturers  
   b. application service providers  
   c. enterprise solution software providers  
   d. Internet service providers

   **Answer:** b  
   **Difficulty:** Med  
   **Reference:** p. 38

17. Advantages to using ASPs include:

   a. less need for internal information technology staff  
   b. saving money on internal infrastructure  
   c. saving money on initial capital outlays  
   d. all of the above

   **Answer:** d  
   **Difficulty:** Med  
   **Reference:** p. 38

18. An organization should acquire software from hardware manufacturers when:

   a. the supported task is generic  
   b. system software and utilities are needed  
   c. the task requires custom support and the system cannot be built internally  
   d. the resources and staff are available, and the system must be built from scratch

   **Answer:** b  
   **Difficulty:** Med  
   **Reference:** p. 39

19. An organization should acquire software from in-house developers when:

   a. the supported task is generic  
   b. system software and utilities are needed  
   c. the task requires custom support and the system cannot be built internally  
   d. the resources and staff are available and the system must be built from scratch

   **Answer:** d  
   **Difficulty:** Med  
   **Reference:** p. 39

20. An organization should acquire software from packaged software producers when:

   a. the supported task is generic  
   b. system software and utilities are needed  
   c. the task requires custom support and the system cannot be built internally  
   d. the resources and staff are available and the system must be built from scratch

   **Answer:** a  
   **Difficulty:** Med  
   **Reference:** p. 39

21. The choice to acquire software from outside sources should be made:

   a. at the beginning of the analysis phase  
   b. at the middle of the analysis phase  
   c. at the end of the analysis phase  
   d. at the end of the design phase

   **Answer:** c  
   **Difficulty:** Med  
   **Reference:** p. 39
22. Which of the following describes the internal staffing requirements when software components are acquired from packaged software producers?

a. Some internal staff are necessary, but mostly consultants are needed.
b. Some IS and user staff to define requirements and evaluate packages are needed.
c. Internal staff may be needed, depending on the application.
d. Internal staffing requirements vary

**Answer:** b  
**Difficulty:** Med  
**Reference:** p. 39

23. Which of the following describes the internal staffing requirements when software components are acquired from enterprise wide solutions providers?

a. Some internal staff are necessary, but mostly consultants are needed.
b. Some IS and user staff to define requirements and evaluate packages are needed.
c. Internal staff may be needed, depending on the application.
d. Internal staffing requirements vary

**Answer:** a  
**Difficulty:** Med  
**Reference:** p. 39

24. According to a study cited in the textbook, which of the following development methods can lead to a larger maintenance burden?

a. in-house development  
b. packaged software  
c. outsourcing  
d. enterprisewide solutions

**Answer:** a  
**Difficulty:** Med  
**Reference:** p. 39

25. Which of the following software producers is generally not a source of application software?

a. custom software producers  
b. hardware manufacturers  
c. packaged software producers  
d. in-house developers

**Answer:** b  
**Difficulty:** Med  
**Reference:** p. 40

26. When purchasing off-the-shelf software, you should consider:

a. flexibility  
b. response time  
c. vendor viability  
d. all of the above

**Answer:** d  
**Difficulty:** Med  
**Reference:** p. 40
27. When choosing off-the-shelf software, which of the following are the two most important criteria?
   a. vendor viability and vendor support
   b. cost and functionality
   c. documentation and response time
   d. flexibility and functionality

   **Answer:** a  **Difficulty:** Med  **Reference:** p. 40

28. Which of the following software criteria refers to the tasks the software can perform and the mandatory, essential, and desired system features?
   a. cost
   b. vendor viability
   c. functionality
   d. flexibility

   **Answer:** c  **Difficulty:** Easy  **Reference:** p. 40

29. Which of the following software criteria determines whether the software package can perform all or just some of the software tasks your users need?
   a. cost
   b. vendor viability
   c. functionality
   d. flexibility

   **Answer:** c  **Difficulty:** Easy  **Reference:** p. 40

30. Vendor support can take the form of:
   a. providing assistance to install software
   b. training users and system staff on the software
   c. providing help as problems arise after installation
   d. all of the above

   **Answer:** d  **Difficulty:** Easy  **Reference:** p. 40

31. Which of the following software evaluation criteria refers to the ease with which you or the vendor can customize the software?
   a. cost
   b. vendor viability
   c. functionality
   d. flexibility

   **Answer:** d  **Difficulty:** Easy  **Reference:** p. 40
32. Which of the software evaluation criteria refers to how long it takes the software package to respond to the user’s requests in an interactive session?
   a. functionality  
   b. return rate  
   c. response time  
   d. flexibility

   **Answer:** c  
   **Difficulty:** Easy  
   **Reference:** p. 40

33. Which of the following software evaluation criteria 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:** Easy  
   **Reference:** p. 40

34. Which of the following are ways of validating purchased software information?
   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. all of the above

   **Answer:** d  
   **Difficulty:** Med  
   **Reference:** p. 41

35. 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:** Med  
   **Reference:** p. 41

36. Which of the following is a true 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. All of the above.

   **Answer:** d  
   **Difficulty:** Med  
   **Reference:** p. 41
37. The reuse of object libraries can result in:
   a. reduced rework
   b. reduced defect density
   c. increased productivity
   d. all of the above

   Answer: d  Difficulty: Med  Reference: p. 42

38. When considering reuse, which of the following issues should be addressed?
   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. all of the above

   Answer: d  Difficulty: Med  Reference: p. 42

39. Which of the following 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. abstraction
   c. recontextualization
   d. conceptualization

   Answer: b  Difficulty: Med  Reference: p. 43

40. Which of the following is the software reuse step that involves making software assets available for others to use?
   a. storage
   b. abstraction
   c. recontextualization
   d. conceptualization

   Answer: a  Difficulty: Med  Reference: p. 43
“List …” Type Questions

1. List 8 main issues to consider in acquisition of information systems.
   Answer: PPT slide  Difficulty: High

2. List 8 main reasons for IS outsourcing.
   Answer: PPT slide  Difficulty: High

3. List 4 main forms of IS outsourcing and provide details.
   Answer: PPT slide  Difficulty: Med

4. List 4 main disadvantages of outsourcing.
   Answer: PPT slide  Difficulty: Med

5. What is ASP (main idea, advantages, and disadvantages)?
   Answer: PPT slide  Difficulty: High

6. What is in-sourcing (main idea, advantages, and disadvantages)?
   Answer: PPT slide  Difficulty: Med

7. What is self-sourcing (main idea, advantages, and disadvantages)?
   Answer: PPT slide  Difficulty: Med

8. List 8 main selection criteria for purchasing existing IS.
   Answer: PPT slide  Difficulty: High