***Experiencing MIS, 9e* (Kroenke)**
Chapter 12 Information Systems Development

1) The process of creating and maintaining information systems is called _____.
A) systems development
B) systems acquisition
C) systems definition
D) systems configuration
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

2) When compared to program development, systems development is _____.
A) narrower in focus
B) less comprehensive
C) broader in scope
D) more technical
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

3) Which of the following statements is TRUE of systems development?
A) It has little need for human relations skills as tasks are performed by individuals and not by groups.
B) It is a technical task undertaken exclusively by programmers and hardware specialists.
C) It has lesser scope than computer program development.
D) It requires business knowledge and an understanding of group dynamics.
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

4) Which of the following statements is TRUE of information systems?
A) They are off-the-shelf software without adaptation.
B) They can be adapted to fit business needs.
C) They can be purchased as off-the-shelf software.
D) They cannot be tailor-made.
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

5) Information systems cannot be tailor-made.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

6) Information systems involve people and procedures, so they can never be off-the-shelf.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

7) What is systems development? How is it different from program development?
Answer: Systems development is the process of creating and maintaining information systems. Systems development has a broader scope than computer program development as it involves all five components: hardware, software, data, procedures, and people. Developing a computer program, on the other hand, mostly involves software programs, with some focus on data and databases.
Compared to program development, systems development requires more than just programming or technical expertise. Establishing the system's goals, setting up the project, and determining requirements require business knowledge and management skill. Tasks like building computer networks and writing computer programs require technical skills. Creating data models requires the ability to interview users and understand their view of the business activities. Designing procedures, especially those involving group action, requires business knowledge and an understanding of group dynamics. Developing job descriptions, staffing, and training all require human resource and related expertise.
Thus, unlike program development, systems development is not an exclusively technical task undertaken by programmers and hardware specialists. Rather, it requires coordinated teamwork of both specialists and nonspecialists with business knowledge.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

8) Which of the following statements is TRUE of systems development for bigger systems and longer projects?
A) The diseconomies of scale are reduced.
B) The changes in requirements are increased.
C) The average contribution per worker is increased.
D) The project budgeting and scheduling becomes easy.
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

9) According to Brooks' Law, adding more people to a late project _____.
A) makes the project later
B) decreases the overall cost
C) requires decreased staff coordination
D) increases the project's timeline
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

10) According to Brooks' Law, which of the following is a consequence of adding more people to late projects?
A) The work allocation per team member increases.
B) The costs of training new people can overwhelm the benefits of their contribution.
C) Beyond a workgroup of about 20 employees, economies of scale begin to take over.
D) It allows the managers to extend the timeline of the project.
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

11) Systems development is easy and risk-free.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

12) It is essential to estimate a system's cost to calculate its rate of return.
Answer: TRUE
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

13) One of the major challenges in systems development is changing technology.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

14) As development teams become larger, the average contribution per worker decreases.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

15) Brooks' Law holds true because a larger staff requires decreased coordination.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

16) Why is systems development difficult and risky?
Answer: Systems development is difficult and risky because system requirements are often very difficult to determine. Even more difficult, systems development aims at a moving target. Requirements change as the system is developed, and the bigger the system and the longer the project, the more the requirements change. Systems development also faces difficulties in terms of scheduling and budgeting. It is often difficult to estimate the time taken to build a system. It is essential to determine the cost of developing a system, and if labor hours cannot be estimated, labor costs cannot be estimated. Yet another challenge is that while a project is underway, technology continues to change. Unfortunately, as development teams become larger, the average contribution per worker decreases. This is true because as staff size increases, more meetings and other coordinating activities are required to keep everyone in sync. There are economies of scale up to a point, but beyond a workgroup of, say, 20 employees, diseconomies of scale begin to take over.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

17) Explain how diseconomies of scale can affect systems development.
Answer: Unfortunately, as development teams become larger, the average contribution per worker decreases. This is true because, as staff size increases, more meetings and other coordinating activities are required to keep everyone in sync. There are economies of scale up to a point, but beyond a workgroup of, say, 20 employees, diseconomies of scale begin to take over. Brooks' Law points out a related problem: The addition of more people to a late project makes the project later. Brooks' Law is true not only because a larger staff requires increased coordination, but also because new people need training. The only people who can train the new employees are the existing team members, who are thus taken off productive tasks. The costs of training new people can overwhelm the benefit of their contribution.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

18) The _____ is the traditional process used to develop information systems.
A) rapid application development (RAD)
B) object-oriented design (OOD)
C) systems development life cycle (SDLC)
D) extreme programming (XP)
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

19) Which of the following is the first phase of the systems development life cycle?
A) requirements analysis
B) business planning process
C) implementation
D) system definition
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

20) In the _____ phase of the systems development life cycle, developers use management's statement of the system needs in order to develop a new information system.
A) system definition
B) requirements analysis
C) component design
D) implementation
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

21) In which of the following phases of the systems development life cycle do developers identify the particular features and functions of a new system?
A) system definition
B) requirements analysis
C) component design
D) implementation
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

22) The project plan resulting from system definition is the input for requirement analysis.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

23) The goals and scope of a new information system are determined during the requirements analysis phase of the systems development life cycle.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

24) The description of fixes and new requirements is the input to a system maintenance phase of a systems development life cycle.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

25) What are the five phases of the systems development life cycle (SDLC)?
Answer: The five phases of the systems development life cycle are (1) system definition, (2) requirements analysis, (3) component design, (4) implementation, and (5) system maintenance. Developers in the first SDLC phase, i.e. system definition, use management's statement of the system needs in order to begin to define the new system (for PRIDE, this statement is based on experience with the prototype). The resulting project plan is the input to the second phase, requirements analysis. Here developers identify the particular features and functions of the new system. The output of that phase is a set of approved user requirements, which become the primary input used to design system components. In phase 4, developers implement, test, and install the new system. Over time, users will find errors, mistakes, and problems. They will also develop new requirements. The description of fixes and new requirements is input into a system maintenance phase. The maintenance phase starts the process all over again, which is why the process is considered a cycle.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

26) Which of the following is the first step in defining a new information system?
A) assess the feasibility of the project
B) explain the goals and scope of the project
C) determine the schedule and budget for the project
D) form the project team
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

27) Which of the following steps in the systems definition process aims to eliminate obviously nonsensible projects?
A) define the system goals and scope
B) form the project team
C) assess the project feasibility
D) plan the project requirements
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

28) _____ feasibility concerns whether a new information system fits within a company's customs, culture, charter, or legal requirements.
A) Technical
B) Cost
C) Schedule
D) Organizational
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

29) During requirements definition, a development team's composition will be typically heavy with _____.
A) systems analysts
B) programmers
C) business users
D) beta testers
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

30) Which of the following statements is TRUE of the composition of a development team over the different phases of the systems development life cycle?
A) During conversion, the team will be heavy with database designers.
B) During requirements definition, the team will be heavy with testers and database designers.
C) During integrated testing and conversion, the team will be augmented with business users.
D) During design and implementation, the team will be augmented with business users.
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

31) During design and implementation, a development team will be heavy with _____.
A) business analysts
B) business users
C) programmers
D) senior managers
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

32) The cost feasibility of a systems development project depends on the scope of the project.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

33) Organizational feasibility refers to estimating the time it will take to complete a project.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

34) A development team's composition changes over time.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

35) Business analysts integrate the work of the programmers, testers, and users.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

36) Explain the tasks performed during the system definition phase of the systems development life cycle.
Answer: The first step is to define the goals and scope of the new information system. At this step, a development team defines the goal and purpose of the new system. A project's scope is defined by specifying the users who will be involved, or the business processes that will be involved, or the plants, offices, and factories that will be involved. The next step is to assess feasibility. This step answers the question, "Does this project make sense?" The aim here is to eliminate obviously nonsensible projects before forming a project development team and investing significant labor. Feasibility has four dimensions: cost, schedule, technical, and organizational. If the defined project is determined to be feasible, the next step is to form the project team. Typical personnel on a development team are a manager, systems analysts, business analysts, programmers, software testers, and users. The first major task for the assembled project team is to plan the project. Members of the project team specify tasks to be accomplished, assign personnel, determine task dependencies, and set schedules.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

37) Define the terms cost feasibility, technical feasibility, and organizational feasibility.
Answer: Cost feasibility approximates total costs and compares it to system value. Technical feasibility refers to whether existing information technology is likely to be able to meet the needs of the new system. Organizational feasibility concerns whether the new system fits within the organization's customs, culture, charter, or legal requirements.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

38) Who are the members of a systems project team? Explain the roles of business analysts and systems analysts.
Answer: Typical personnel on a development team are a manager (or managers for larger projects), business analysts, systems analysts, programmers, software testers, and users. Business analysts specialize in understanding business needs, strategies, and goals and helping businesses implement systems to accomplish their competitive strategies. Systems analysts are IT professionals who understand both business and technology. Systems analysts are closer to IT and are a bit more technical, though there is considerable overlap in the duties and responsibilities of business and systems analysts. Both are active throughout the systems development process and play a key role in moving a project through the systems development process. Business analysts work more with managers and executives; systems analysts integrate the work of the programmers, testers, and users. Depending on the nature of the project, the team may also include hardware and communications specialists, database designers and administrators, and other IT specialists.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

39) Which of the following is the most important phase in the SDLC?
A) define the goals and scope of the new information system
B) implement the information system
C) determine the system's requirements
D) adapt systems to changes in requirements
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

40) If a new system involves a new database or substantial changes to an existing database, then the development team will have to create a(n) _____.
A) data model
B) replica
C) archetype
D) test plan
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

41) The easiest and cheapest time to alter an information system is in the _____ phase of the systems development life cycle.
A) requirements analysis
B) system definition
C) component design
D) implementation
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

42) Which of the following is a typical concern for developers while using prototypes?
A) comparing a system's features with requirements
B) understanding a system's complete requirements
C) assessing a system's technical feasibility
D) developing a uniform funding solution for the system
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

43) Interviews are conducted with system users in the requirements analysis phase of the systems development life cycle.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

44) The security needs of an information system are determined during the component design phase of the systems development life cycle.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

45) Mock-ups of forms and reports can generate similar benefits as a working prototype.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

46) Explain the importance of the requirements analysis phase of the systems development life cycle (SDLC).
Answer: Determining the system's requirements is the most important phase in the systems development process. If the requirements are wrong, the system will be wrong. If the requirements are determined completely and correctly, then design and implementation will be easier and more likely to result in success. Examples of requirements are the contents and the format of Web pages and the functions of buttons on those pages, or the structure and content of a report, or the fields and menu choices in a data entry form. Security is another important category of requirements. The easiest and cheapest time to alter the information system is in the requirements phase. Changing a requirement at this stage is simply a matter of changing a description. Changing a requirement in the implementation phase may require weeks of reworking applications components and the database.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

47) While designing _____, a development team must produce design documentation for writing program code.
A) off-the-shelf with alteration software
B) custom-developed programs
C) off-the-shelf software
D) cloud-based programs
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

48) Normal processing procedures for operations personnel involve procedures for _____.
A) continuing operations when the system fails
B) backing up data and other resources
C) using the system to accomplish business tasks
D) starting, stopping, and operating the system
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

49) Procedures for a business information system are designed usually by _____.
A) testers
B) programmers
C) systems analysts
D) business analysts
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

50) In terms of software design for custom-developed programs, a development team identifies off-the-shelf products and then determines the alterations required.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

51) Explain how the software component of an information system is designed.
Answer: Software design depends on the source of the programs. For off-the-shelf software, the team must determine candidate products and evaluate them against the requirements. For off-the-shelf with alteration software, the team identifies products to be acquired off-the-shelf and then determines the alterations required. For custom-developed programs, the team produces design documentation for writing program code. For a cloud-based system, one important design decision is where application processing will occur. All can occur on mobile devices, all can occur on cloud servers, or a mixture can be used.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

52) During the _____ phase of the systems development life cycle process, developers construct, install, and test the components of the information system.
A) requirements analysis
B) database design
C) feasibility assessment
D) implementation
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

53) A comprehensive test plan should _____.
A) not include incorrect actions that users take
B) cause every line of program code to be executed
C) cause only critical error messages to be displayed
D) be constructed by only product quality assurance (PQA) personnel
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

54) Which of the following personnel in a development team has the final say on whether a system is ready for use?
A) managers
B) systems analysts
C) users
D) PQA personnel
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

55) _____ testing is the process of allowing future system users to try out a new system on their own.
A) Unit
B) Alpha
C) Integration
D) Beta
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

56) System _____ refers to the process of changing business activity from an old information system to a new system.
A) definition
B) testing
C) analysis
D) conversion
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

57) In a _____ installation, an organization implements an entire system on a limited portion of the business.
A) phased
B) parallel
C) pilot
D) plunge
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

58) In a _____ installation, a new system runs alongside the old one until the new one has been tested and is fully operational.
A) pilot
B) parallel
C) phased
D) plunge
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

59) Olive Inc., a chain of retail outlets, is converting its existing billing systems to a more robust online tool. In this process, the organization runs both the old and the new systems to compare their performances. In this case, the company is implementing the new system using _____ installation.
A) parallel
B) pilot
C) plunge
D) phased
Answer: A
AACSB: Reflective Thinking
Difficulty: 3: Challenging
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Application

60) Which of the following is the most expensive style of system conversion?
A) pilot installation
B) phased installation
C) parallel installation
D) plunge installation
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

61) Which of the following styles of system conversion shuts off the old system and starts a new system?
A) plunge installation
B) parallel installation
C) pilot installation
D) phased installation
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

62) Testing is often called product quality assurance (PQA).
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

63) Beta testing is the last phase of a testing process.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

64) In pilot installation, a new system is installed in phases across an organization.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

65) Plunge installation is sometimes called direct installation.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

66) What is a test plan?
Answer: Once developers have constructed and tested all of the system components, they integrate the individual components and test the system. Software and system testing are difficult, time-consuming, and complex tasks. Developers need to design and develop test plans and record the results of tests. A test plan consists of sequences of actions that users will take when using the new system. Test plans include not only the normal actions that users will take, but also incorrect actions. A comprehensive test plan should cause every line of program code to be executed. The test plan should cause every error message to be displayed.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

67) What is beta testing?
Answer: Beta testing is the process of allowing future system users to try out the new system on their own. Software vendors, such as Microsoft, often release beta versions of their products for users to try and to test. Such users report problems back to the vendor. Beta testing is the last stage of testing. Normally, products in the beta test phase are complete and fully functioning; they typically have few serious errors.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

68) What are the four ways in which organizations can implement a system conversion?
Answer: Organizations can implement a system conversion in one of four ways. In a pilot installation, an organization implements the entire system on a limited portion of the business. In a phased installation, a new system is installed in phases across the organization. With parallel installation, a new system runs in parallel with the old one until the new system is tested and fully operational. The final style of conversion is plunge installation (sometimes called direct installation). With it, an organization shuts off the old system and starts the new system.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

69) Software developers group the fixes for high-priority failures into a group that can be applied to all copies of a given product called a _____.
A) service pack
B) bug
C) patch
D) product key
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

70) Software vendors usually bundle fixes of low-priority problems into larger groups called _____.
A) patches
B) service packs
C) bugs
D) product keys
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

71) Which of the following statements is TRUE of system maintenance?
A) Software developers usually bundle fixes for low-priority problems into a patch.
B) Information systems (IS) personnel prioritize system problems on a first-come-first-served basis.
C) All commercial software products are shipped with known failures.
D) Service packs are developed to fix a single problem at a time.
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

72) The maintenance phase can start another cycle of the systems development life cycle (SLDC).
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

73) What are the tasks of system maintenance?
Answer: The last phase of the systems development life cycle (SDLC) is maintenance. Maintenance is a misnomer; the work done during this phase is either to fix the system so that it works correctly or to adapt it to changes in requirements. First, there needs to be a means for tracking both failures and requests for enhancements to meet new requirements. For small systems, organizations can track failures and enhancements using word-processing documents. Typically, IS personnel prioritize system problems according to their severity. They fix high-priority items as soon as possible, and they fix low-priority items as time and resources become available.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

74) What are patches and service packs?
Answer: Patches are group fixes for high priority failures that can be applied to all copies of a given product. Software vendors supply patches to fix security and other critical problems. They usually bundle fixes of low-priority problems into larger groups called service packs. Users apply service packs in much the same way that they apply patches, except that service packs typically involve fixes to hundreds or thousands of problems.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Describe the components of an information system (IS).
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

75) Which of the following is a major concern for developers in a systems development life cycle process?
A) having to work with a team of specialists
B) moving through the unstructured phases of the cycle
C) agreeing on the basic tasks to be performed to build a system
D) performing repetitive tasks of a completed phase
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

76) Projects are said to be in analysis paralysis if so much time is spent _____.
A) in the system definition phase of the systems development life cycle (SDLC)
B) on project scheduling
C) documenting the requirements
D) designing the system components
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

77) The systems development life cycle process is supposed to operate in a sequence of nonrepetitive phases.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

78) Actual systems development generally works in accordance with the waterfall nature of the systems development life cycle.
Answer: FALSE
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

79) Estimates of labor hours and completion dates are accurate for large, multiyear projects.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

80) Explain the problems caused due to the waterfall nature of the systems development life cycle.
Answer: One of the reasons for SDLC problems is due to the waterfall nature of the SDLC. Like a series of waterfalls, the process is supposed to operate in a sequence of nonrepetitive phases. For example, the team completes the requirements phase and goes over the waterfall into the design phase, and on through the process. Unfortunately, systems development seldom works so smoothly. Often, there is a need to crawl back up the waterfall, if you will, and repeat work in a prior phase. Most commonly, when design work begins and the team evaluates alternatives, they learn that some requirements statements are incomplete or missing. At that point, the team needs to do more requirements work, yet that phase is supposedly finished. On some projects, the team goes back and forth between requirements and design so many times that the project seems to be out of control.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

81) Systems development is exclusively a technical task.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

82) As a manager, you can pass over _____ to the IT department.
A) hardware problems
B) data problems
C) procedural problems
D) program problems
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

83) Systems development uses two of the five components in the five-component model.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

84) The single most important criterion for information systems success is _____.
A) users to take ownership of their systems
B) a good plan to guide the technical staff
C) good human relations skills
D) proper written procedures
Answer: A
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

85) All of the following are major challenges in systems development EXCEPT _____.
A) changes in requirements
B) high costs of labor
C) changing technology
D) diseconomies of scale
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

86) Systems development does not have to worry about requirement changes.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

87) _____ is the most common process for systems development.
A) Agile development
B) Object oriented programming
C) Systems development life cycle (SDLC)
D) Java programming
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

88) The basic tasks of the _____ was developed by seasoned project managers after they reviewed projects that were deemed disasters.
A) planning process
B) systems development life cycle
C) agile method
D) maintenance phase
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

89) All of the following are part of the systems development life cycle five-phase process EXCEPT _____.
A) system definition
B) requirements analysis
C) component design
D) business planning
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

90) Which of the following statement describes why SDLC is considered a process?
A) because every IT person must consider each document repeatedly
B) because it is difficult to identify requirements
C) because the maintenance phase starts the cycle over again
D) because it is difficult to implement a system just once
Answer: C
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

91) For a new system definition, the initial team will consist of both users and IS professionals.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

92) Jason desires to build a new system, but first he must decide if the potential benefits of the system are work the development and operational costs. To accomplish this, he must create a _____ report.
A) technical
B) cost feasibility
C) schedule feasibility
D) organizational chart
Answer: B
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

93) The first major task of the project team is to _____.
A) plan the project
B) decide the costs
C) assign members to the team
D) identify users
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

94) All of these steps are part of the requirements analysis phase EXCEPT _____.
A) creating a data model
B) evaluating existing systems
C) identifying new application features
D) developing a uniform funding solution for the system
Answer: D
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

95) If the requirements are wrong, the system should be changed.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

96) A design team decides the requirements of a new system are very complicated. They want to show a _____ to the users so they can interact with the new features before the full system is built. This process will also allow users to remember any features and functions they may have forgotten to mention to the team.
A) mock-up of forms and reports
B) prototype
C) functioning database
D) list of programs to be updated
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

97) Kim is determining hardware and software specifications for the new project. Kim is most likely in the _____ phase of the SDLC process.
A) component design
B) implementation
C) system design
D) requirements analysis
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

98) Describe the ways a team can determine hardware specifications.
Answer: For hardware, the team determines specifications for the hardware it needs and the source of that hardware. It can purchase the hardware, lease it, or lease time from a hosting service in the cloud.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

99) New information systems sometimes require new jobs.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

100) The budget was tight when the project entered the testing phase so Bob decided to implement the _____ for the new system. It was a disaster because the customer service agents could not log in to their accounts. So the testing team had to come and reinstall the old system.
A) plunge installation method
B) parallel installation method
C) pilot installation method
D) phased installation method
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

101) Users should never be involved in testing. They will get in the way and may break the new system.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

102) System testing is the easiest part of the implementation process since testing has been completed at the individual level.
Answer: FALSE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

103) All commercial products are shipped with known failures.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

104) All of these statements are true about the maintenance phase EXCEPT _____.
A) the system is fixed during this phase
B) the system is adapted to changes in requirements during this phase
C) system test happens during this phase
D) service packs are deployed during this phase
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

105) Because enhancements are adaptation of new requirements, developers usually _____.
A) prioritize enhancements separate from failures
B) work on enhancements as they are requested
C) fix the old issues before analyzing the new issues
D) categorize the new requirements for the next project team
Answer: A
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

106) When developing a budget for a large, multi-year projects estimations are _____.
A) accurate because of past projects
B) so approximate they are not real
C) budgeted one phase at a time
D) easy based on management experience
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

107) All of the following are new technologies to deal with the issues of SDLC EXCEPT _____.
A) scrum
B) object-oriented development
C) extreme programming
D) the waterfall method
Answer: D
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

108) On some projects, the team goes back and forth between requirements and design so many times the project appears to be out of control.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept

109) If your department does not have appropriate procedures and trained personnel, you must take corrective action.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.1: What Is Systems Development?
Classification: Concept

110) According to _____ the costs of training new people can overwhelm the benefit of their contribution?
A) Labor Laws
B) Brooks' Law
C) diseconomies of scale
D) Training Law
Answer: B
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.2: Why Is Systems Development Difficult and Risky?
Classification: Concept

111) Over time, users will find errors, mistakes, and problems. They will also develop new requirements. The description of fixes and new requirements is input into a system maintenance phase.
Answer: TRUE
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.3: What Are the Five Phases of the SDLC?
Classification: Concept

112) The first major task of an assembled team is to _____.
A) plan the project
B) decide the costs
C) assign members to the team
D) identify users
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.4: How Is System Definition Accomplished?
Classification: Concept

113) What is the role of a prototype?
Answer: Because requirements are difficult to specify, building a working prototype, can be quite beneficial. Whereas future systems users often struggle to understand and relate to requirements expressed as word descriptions and sketches, working with a prototype provides direct experience. As they work with a prototype, users will assess usability and remember features and functions they have forgotten to mention. Additionally, prototypes provide evidence to assess the system's technical and organizational feasibility. Further, prototypes create data that can be used to estimate both development and operational costs.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.5: What Is the Users' Role in the Requirements Phase?
Classification: Concept

114) Thinking about the five components, what occurs in software design when managing a project?
Answer: Software design depends on the source of the programs. For off-the-shelf software, the team must determine candidate products and evaluate them against the requirements. For off-the shelf-with-alteration software, the team identifies products to be acquired off-the-shelf and then determines the alterations required. For custom-developed programs, the team produces design documentation for writing program code.
AACSB: Information Technology
Difficulty: 2: Moderate
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.6: How Are the Five Components Designed?
Classification: Concept

115) A _____ consists of sequences of actions that users will take when using the new system.
A) test plan
B) requirements document
C) document review
D) system conversion
Answer: A
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Compare and contrast different methods for developing information systems.
Learning Obj: LO 12.7: How Is an Information System Implemented?
Classification: Concept

116) What is the first task of the maintenance phase?
A) To send the application back to the testing team.
B) To create a requirements document.
C) Track failures and obtain feedback for new requirements.
D) To deploy the service packs.
Answer: C
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.8: What Are the Tasks for System Maintenance?
Classification: Concept

117) Briefly, define analysis paralysis.
Answer: Projects that spend too much time documenting requirements hurt, not help, the SDLC process.
AACSB: Information Technology
Difficulty: 1: Easy
Course LO: Discuss the key issues involved in managing the components of IT infrastructure.
Learning Obj: LO 12.9: What Are Some of the Problems with the SDLC?
Classification: Concept