

SAD Chapter 7

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. In what SDLC stage do we determine the business needs for an information systems project?
- a. The design phase
 - b. The analysis phase
 - c. The dissection stage
 - d. The installation stage
 - e. The big bang stage
- _____ 2. System design is the determination of the overall system architecture-consisting of a set of physical processing components, _____, and the communication among them-that will satisfy the system's essential requirements.
- a. Workmanship
 - b. Order entry methods, HR feedback
 - c. Hardware, Software, People
 - d. Engineering data plans, fiber optic specifications
 - e. None of the above
- _____ 3. In the initial stage of design, what are business requirements converted into?
- a. System Requirements
 - b. Work Order Summary
 - c. Computer Qualifications Checklist
 - d. Vanilla System
 - e. Hardware Blueprint

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- _____ 4. Where are the decisions stored that are made regarding the hardware and software that will be purchased to support the new system?
- a. Order Manifest
 - b. Hardware Sales Receipt
 - c. Suppliers' Computer System
 - d. President's Office
 - e. Hardware and Software Specification
- _____ 5. The system inputs and outputs will be designed along with a plan or _____ of the way the system's features will be navigated.
- a. Blueprint
 - b. Compass
 - c. Instructional Guide
 - d. Roadmap
 - e. FAQ
- _____ 6. _____ repository entries are updated to reflect specific technology decisions as they are made.
- a. DFD
 - b. Sequential
 - c. CASE
 - d. Hardware
 - e. None of the above

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- _____ 7. Which of the following lists indicates the correct ordering of deliverables in a system specification document?
- a. System Acquisition Weighted Alternative Matrix, Interface Design, Physical Data Model Data Storage Design
 - b. Data Storage Design, Interface Design, Architecture Design, Updated Crud Matrix
 - c. Hardware and Software Specifications, Interface Design, Data Storage Design, Architecture Design
 - d. Program Design Specifications, Physical Data Model, Data Storage Design, Architecture Design
 - e. Update CASE Repository Entries, Update CRUD Matrix, Interface Design, Architecture Design
- _____ 8. If on a limited time budget, the best way to be sure you remain efficient and effective in designing a system is to utilize the _____.
- a. Porters 5 Forces Model
 - b. Outsourcing Model
 - c. RAD and Timeboxing Techniques
 - d. Hire/Fire Motivational Theory
 - e. Not Attempt the Project
- _____ 9. For efficiency purposes, it is wise to _____ when there is a basic software need to be satisfied.
- a. Implement a company-wide project team to handle a custom software scripting
 - b. Purchase a packaged system
 - c. Design a blueprint and contract an outside vendor to develop a program
 - d. Make do with the current software package
 - e. Utilize a professional consultant to develop a system of servers7

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- ___ 10. Workarounds are:
- Not supported by a vendor who supplied the software
 - Designed by the vendor
 - Created to interface two software packages that are compatible with each other
 - Enterprise Wide Software Packages that are designed for satellite use
 - None of the above
- ___ 11. Systems Integration refers to:
- The process of synching all computers to the mainframe
 - The delivery of systems to the final destination office
 - Combining packaged software, the legacy system and new software
 - Adding the original hard drives to a newer system
 - Creating a new software to monitor power consumption
- ___ 12. What makes systems integration so difficult?
- Finding the original data to install on the new server
 - Creating a ghost drive to house the old information
 - Installing new software packages on older machines
 - Bringing legacy system data and new data together
 - None of the above
- ___ 13. Another name for custom development might be:
- Offshore outsourcing
 - In-house development
 - Vendor supplied in-house consulting
 - CASE tools
 - Package software

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- _____ 14. Which is probably true about packaged software
- In most cases, the software is a perfect fit for the companies need
 - Packaged software works best where the company has a unique need
 - The time frame is flexible to long
 - The business need is common
 - The project has a highly skills project manager who has been with the company for many years and has an excellent relationship with both business users and the IT development staff
- _____ 15. Outsourcing firms called _____ supply software applications and/or software related services through the Internet.
- Application Service Providers (ASPs)
 - Enterprise Resource Providers (ERPs)
 - System Development Life Cycle Companies (SDLCs)
 - Information Technology Developers (ITDs)
 - None of the above
- _____ 16. A time and arrangements deal is considered:
- Very flexible
 - Very rigid
 - Cheaper than any other option
 - Useless when considering a systems design
 - Always the best option for any project
- _____ 17. Fixed-price contracts are considered:
- Very flexible
 - Very rigid
 - Always cheaper than any other option
 - Useless when considering a systems design
 - Always the best option for any project

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- ___ 18. Custom development is used when:
- The business need is unique
 - The business need is not core to the business
 - The project has a project manager who can coordinate vendor efforts
 - The time frame is short
 - The skills are not strategic
- ___ 19. Packaged systems are used when:
- The business need is not core to the business
 - There is a desire to build in-house skills
 - The time frame is flexible
 - The project has a project manager who can coordinate vendor efforts
 - The decision to outsource is strategic
- ___ 20. Application service providers might be best associated with:
- In-house development
 - Packaged software
 - Unique and strategic systems
 - Outsourcing
 - Internet Service Providers
- ___ 21. Outsourcing is used when:
- The project has a project manager who can coordinate vendor efforts
 - There is a desire to build in-house skills
 - In-house functional and technical skills exist
 - The business need is not core to the business
 - None of the above

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- ___ 22. Requests for Proposals (RFPs) serve what purpose?
- Integrate systems with one another
 - Create synergy amongst staff members
 - Solicit information from providers
 - Engage mobile computers with mainframe technology
 - Develop morale amongst managers
- ___ 23. The following document is utilized with possible vendors on projects with smaller budgets, instead of sending a lengthy document to all possible vendors:
- Request for Proposal (RFP)
 - Request for Information (RFI)
 - Request for Quote (RFQ)
 - Request for Efficient Information Distribution (REID)
 - More Optimal Desires (MOD)
- ___ 24. Which of the following is normally NOT done in the design phase of the SDLC?
- Decisions for hardware and software purchases are made
 - User interactions are planned out (inputs, outputs, user interfaces)
 - Cost / Benefits of the new system are carefully calculated
 - Logical DFDs and ERDs are converted into physical DFDs and ERDs
 - The physical data model is created
- ___ 25. If (a) the business need is unique, (b) there is a desire to build in-house skills; (c) the time frame is flexible, it might be best to:
- Do in-house / custom development
 - Buy an ERP system
 - Outsource to India
 - Purchase a software package
 - Hire a consultant
- ___ 26. If (a) the business need is common; (b) the skills needed are not strategic; (c) the time frame is short; it might be best to:
- Use in-house / custom development
 - Hire a vendor to write the code for you
 - Outsource to India
 - Purchase a software package
 - Hire a consultant

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- _____ 27. One problem with using packages software systems is:
- It takes a very long time to get the system and get it installed
 - The company has to accept the functionality that is provided with the system
 - Many common software packages have been written and tested and are readily available
 - There are many good software packages that are reasonable in price
 - Most software packages allow for some customization
- _____ 28. An advantage of custom development might be:
- You get a system that is tailored to the current business and meets specific needs
 - The rapid development of custom systems
 - The low cost (as compared to buying a package)
 - The low risk factor
 - The ability for in-house developers to work on systems that are in new programming languages and in technologies that are unknown to them prior to the development
- _____ 29. Which is NOT a factor in choosing a development option?
- Data base normalization
 - In-house experience
 - Time frame
 - Project skills
 - Project management
- _____ 30. In terms of project management, which option might require excellent project management skills and a proven methodology?
- Outsourcing to Nebraska
 - Outsourcing to India
 - Buying a packaged solution
 - Doing custom development
 - Buying an ERP system
- _____ 31. Designing an architecture can be _____.
- Tedious and therefore younger members of the team are usually urged to take the lead.
 - Easy and therefore more experienced members of the department take the lead.
 - Difficult and therefore outside consultants are often sourced to do the task.
 - Difficult and therefore experienced internal members are sourced to the task
 - C and D

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- ___ 32. The objective of architecture design is to determine _____.
- a. How aesthetically pleasing the server system will be
 - b. What parts of the application software will be assigned to what hardware
 - c. How the computers will be arranged to provide ample storage
 - d. Where the mainframe will be situated
 - e. None of the above
- ___ 33. The major architectural components of any system are the _____.
- a. IT Department
 - b. Hardware
 - c. Software
 - d. A and B
 - e. B and C
- ___ 34. Software systems can be divided into how many basic functions?
- a. 1
 - b. 2
 - c. 3
 - d. 4
 - e. 5
- ___ 35. There are _____ primary hardware components of a system.
- a. 1
 - b. 2
 - c. 3
 - d. 4
 - e. 5

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- ___ 36. The primary hardware components of a system consist of:
- a. Client Computers
 - b. Servers
 - c. Network
 - d. A and B
 - e. A, B and C
- ___ 37. Servers can take on what “flavors”?
- a. Mainframes
 - b. Minicomputers
 - c. Microcomputers
 - d. A and B
 - e. A, B and C
- ___ 38. Form(s) of network connection(s) in a system include:
- a. ATM
 - b. T2
 - c. DSL
 - d. A and C
 - e. B and C
- ___ 39. Server-based architecture is:
- a. When the clients capture keystrokes
 - b. The very first architecture system
 - c. Outdated and never used
 - d. A and B
 - e. A, B and C

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- ___ 40. Client-based architectures are where the:
- Client computer is responsible for presentation logic
 - Client computer is responsible for application logic
 - Client computer is responsible for data access logic
 - The server stores the data
 - All of the above
- ___ 41. Client-server architecture holds the client responsible for ___ and server is only responsible for ____.
- Application Logic; Presentation Logic
 - Presentation Logic; Data Access Logic and Data Storage
 - Data Access Logic and Presentation Logic; Data Storage
 - Application Logic; Data Storage
 - Data Storage; Application Logic
- ___ 42. Thick clients contain:
- Enormous storage abilities
 - Almost all or most of the application logic
 - Almost none or less than half of the application logic
 - Almost all of the data logic
 - None of the above
- ___ 43. Which of the following is an advantage of client-server architectures?
- They are scalable
 - They can support different types of systems
 - It is easy to separate different logic functions
 - Reliability
 - All of the above

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- ___ 44. How many advantages are client-server based architectures known for?
- a. 2
 - b. 3
 - c. 4
 - d. 5
 - e. 7
- ___ 45. An n-tiered architecture is distinguished by:
- a. The number of drives installed
 - b. The number of logics on the local server
 - c. The number of terminals on the network
 - d. The number of specialized server computers
 - e. None of the above
- ___ 46. What is/are the disadvantage(s) associated with n-tiered architecture?
- a. Great load on the network
 - b. Difficult to program
 - c. They are always slower
 - d. B and C
 - e. A and B
- ___ 47. The cost of infrastructure associated with Server-Based systems is:
- a. Low
 - b. Low-Medium
 - c. High-medium
 - d. High
 - e. Very High

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- ___ 48. The cost of development associated with Client-Based systems is:
- Low
 - Low-Medium
 - High-medium
 - High
 - Very High
- ___ 49. The scalability associated with Client-Server systems is:
- Low
 - Low-Medium
 - High-medium
 - High
 - Very High
- ___ 50. Client-server architectures tend to be:
- More expensive than client-based architectures
 - Less expensive than client-based architectures
 - More less secure than client-based architectures
 - A and C
 - None of the above
- ___ 51. Maintaining a client-server architecture is:
- Easy
 - Four to Five times more expensive than server-based applications
 - Completely manageable with in-house expertise from the onset
 - Easy since the maturity of the application is more developed
 - None of the above

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- ___ 52. The development tools used to create mainframe-based systems are:
- Very user friendly
 - Not very user friendly
 - Require no special skills to maintain
 - Difficult at first, but the skills are easy to acquire
 - None of the above
- ___ 53. Project teams often _____ the _____ associated with creating secure, efficient client-server applications.
- Overestimate; Difficulty
 - Overestimate; Simplicity
 - Underestimate; Difficulty
 - Underestimate; Simplicity
 - None of the above
- ___ 54. Server-based applications typically utilize a _____, character-based interface that can be quite powerful for the _____ user.
- Complex; Basic
 - Plain; Skilled
 - Complex; Skilled
 - Plain; Basic
 - None of the above
- ___ 55. The current generation of system users expect a(n) _____ to access the system.
- GUI
 - Web-based interface
 - ERP
 - A or B
 - None of the above

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- ___ 56. An example of a capacity requirement would be:
- a. Transmissions require 287K of data
 - b. The systems uptime will be 99%
 - c. Response time must be <2.8 seconds for any transactions
 - d. The inventory database will be updated in real time
 - e. None of the above
- ___ 57. A sample access control requirement would be:
- a. Customer service reps can modify customer files but not delete them
 - b. Data will be encrypted for secure ordering
 - c. All uploaded files will be checked for viruses
 - d. The system will cost \$38,900 per minute of downtime in lost revenues
 - e. None of the above
- ___ 58. DES is an example of:
- a. Asymmetric Encryption Algorithm
 - b. Symmetric Encryption Algorithm
 - c. Bi-Adjusted Encryption Algorithm
 - d. Dynamic Encryption System
 - e. Alternative Systems Security Algorithms
- ___ 59. An example of a multilingual requirement is:
- a. The system will operate in English, French and Spanish
 - b. Country managers can define custom fields
 - c. All date fields will be presented in a uniform format
 - d. Personal information about English customers cannot be sent to Chinese systems
 - e. Country managers are able to change telephone number formats

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True/False

Indicate whether the statement is true or false.

- 60. System requirements are communicated through a collection of design documents and physical processes and data models.
- 61. The decision to make, to buy, or to outsource influences the design tasks that are performed throughout the rest of the design phase.
- 62. CASE repository entries are updated to reflect specific technology decisions as they are made.
- 63. Prototyping is the interface design step that often uncovers additional information that is needed in the system, leading to a revision of the physical DFDs or ERPs.
- 64. Building a system in-house builds technical skills and functional knowledge that one may not want to allow to walk out of the door.
- 65. In a custom software case, all parts of the system need to be completely customized and scripted to the company's specifications including ancillary software to the current system.
- 66. A workaround is a custom-built add-on program that interfaces with packaged applications to handle specific needs.
- 67. The key challenge in systems integration is avoiding a system wide crash upon installation of legacy software.
- 68. Outsourcing requires the least in-house resources.
- 69. Application Software Providers (ASPs) should be utilized when considering non-core programming and/custom needs.
- 70. Time and arrangements deals are potentially more expensive if the service provider requires unforeseen resources to complete the project on time.
- 71. A common need to the business should be satisfied by contracting with an Application Service Provider (ASP).

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- ___ 72. Custom development that can be achieved by the in-house team and core business practices are both examples of times when outsourcing is not an option.
- ___ 73. The only skills that are applied during systems projects are technical.
- ___ 74. The only skills that are applied during systems projects are functional.
- ___ 75. The score column in the Alternative Matrix represents how easily specific criteria are met by the alternative.
- ___ 76. An IT department has just received its newest onslaught of system maintenance requests from the finance, marketing and accounting divisions and has added them to the growing list of fixes needed. Tomorrow, there will be a request placed by the CTO that there is to be a new processing system put into place that will take the place of the current MS Word system. The best alternative is to utilize a custom program that will replace the original program.
- ___ 77. A department head is apprehensive as to what implementation system he should employ. The best method of ensuring a successful and efficient installation of the new systems would be to utilize an alternative matrix.
- ___ 78. The Design phase of the SDLC uses the requirements that were gathered during analysis to actually build (and code if necessary) the final system.
- ___ 79. The Design phase of the SDLC builds on the logical designs from the analysis phase (like logical ERDs and logical DFDs)
- ___ 80. The design phase decides *how* the new system will operate.
- ___ 81. During the initial part of design, the project team converts the business requirements for the system into system requirements.
- ___ 82. One systems development option is to have a system developed by using an outsourcing strategy.
- ___ 83. One systems development option is to let users build their own system using tools like Excel and Access, with support from the Microsoft help desk.
- ___ 84. CRUD stands for Create, Redesign, Update and Deploy – and is a matrix of table functions in databases.
- ___ 85. During the design phase, the project team carefully considers the nonfunctional business requirements (such as performance, cultural and political aspects).
- ___ 86. In the analysis phase, architecture decisions are made and written up in the ‘hardware and software specifications’.

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- ___ 87. The objective of architecture design is to determine what parts of the application software will be assigned to what hardware.
- ___ 88. The architectural components of any system are the network and the hardware.
- ___ 89. Data storage, Data Access Logic, Application Logic and Presentation Logic are the four basic functions of software systems.
- ___ 90. Client computers, Servers and Networks are the three primary hardware components of a system.
- ___ 91. An ATM dialing a network provides the IT department with a quick cash withdrawal for emergency purposes.
- ___ 92. Client-based architecture is complex and there is minimal chance of network circuits being overloaded due to growing network applications.
- ___ 93. There are three advantages associated with client-server architecture.
- ___ 94. There are four advantages associated with client-server architecture.
- ___ 95. Server-based architecture is more secure than client-based architecture.
- ___ 96. Server-based architecture is not more secure than client-based architecture.
- ___ 97. Client-based interface capabilities are greater than client-server architectures.
- ___ 98. Client-server scalability is less than server-based scalability.
- ___ 99. Client-server scalability is greater than server-based scalability.
- ___ 100. The infrastructure cost of client-server architectures is low due to the advancement in processing power of today's personal computers.
- ___ 101. The cost differential between maintaining client-server applications and server-based applications will be offset with organizational experience.

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- ___ 102. An example of an asymmetric encryption algorithm is public key encryption.
- ___ 103. An example of a cultural requirement would be offering the system in English and Spanish.
- ___ 104. An example of making an unstated norm explicit would be to make a field modifiable by a manager to represent the local format.
- ___ 105. An example of making an unstated norm explicit would be to make an input field explicitly defined, such as a date will use month-day-year format.
- ___ 106. It is not uncommon for the cost of a power disruption to be hundreds or thousands of times the cost of failed components.
- ___ 107. The design phase is the time to select the specific software that will operate the hardware.