



Course: [System analysis and design \(SAD1\)](#)

University: King Faisal University

 Info 

Systems, Roles, and Development Methodologies, 8e (Kendall/Kendall)
Chapter 1 Systems, Roles, and Development Methodologies

1.1 Multiple Choice

1) Which of these systems processes large amounts of data for routine transactions?

- A) transaction processing systems
- B) decision support systems
- C) expert systems
- D) management information systems

Answer: A

Diff: 1 Page Ref: 2

2) Which of these is the most personalized?

- A) transaction processing systems
- B) decision support systems
- C) expert systems
- D) management information systems

Answer: B

Diff: 2 Page Ref: 3

3) Which of these systems allows management to think about strategic problems?

- A) transaction processing systems
- B) strategic support system
- C) executive support systems
- D) management information systems

Answer: C

Diff: 1 Page Ref: 4

4) Which of these is NOT a benefit to mounting or improving an application on the Web?

- A) Increasing user awareness of the availability of a service, product, industry, person, or group.
- B) Improving the usefulness and usability of the interface design.
- C) Creating a system that can extend globally rather than remain local, thus reaching people in remote locations without worry of the time zone in which they are located.
- D) Limiting user access to standard business hours only.

Answer: D

Diff: 1 Page Ref: 4-5

5) Which of these software packages are NOT open source software (OSS)?

- A) Microsoft Windows Vista
- B) Mozilla Firefox web browser
- C) Apache web server
- D) a Linux operating system

Answer: A

Diff: 1

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6) Which of

- A) communicator
- B) problem solver
- C) programmer
- D) project manager



remote locations without worry of the time zone in which they are located.

D) Limiting user access to standard business hours only.

Answer: D

Diff: 1 Page Ref: 4-5

5) Which of these software packages are NOT open source software (OSS)?

- A) Microsoft Windows Vista
- B) Mozilla Firefox web browser
- C) Apache web server
- D) a Linux operating system

Answer: A

Diff: 1 Page Ref: 5

6) Which of these characteristics is most important to a systems analyst?

- A) communicator
- B) problem solver
- C) programmer
- D) project manager

Answer: B

Diff: 2 Page Ref: 8

7) Which of these statements concerning the systems development life cycle is true?

- A) Designing the system is the first step in the SDLC.
- B) No phase can occur until the previous phase is completed.
- C) Although each phase is presented discretely, it is never accomplished as a separate step.
- D) There is widespread agreement that the SDLC is composed of seven phases.

Answer: C

Diff: 1 Page Ref: 8

8) During which phase of the SDLC should the analyst determine the who, what, where, when and how of the current system?

- A) Determining Human Information Requirements
- B) Analyzing System Needs
- C) Designing the System
- D) Implementing and Evaluating the System

Answer: A

Diff: 2 Page Ref: 10

9) In which phase of the SDLC are data flow diagrams constructed?

- A) Determining Human Information Requirements
- B) Analyzing System Needs
- C) Designing the System
- D) Testing and Maintaining the System

Answer: B

Diff: 2 Page Ref: 10

10) During which phase of the SDLC would a programmer develop an FAQ (Frequently Asked Questions)?

- A) Analyzing System Needs
- B) Designing the System
- C) Developing and Documenting Software
- D) Implementing and Evaluating the System

Answer: C

Diff: 2 Page Ref: 11

11) During which phase of the SDLC would a programmer develop an FAQ (Frequently Asked Questions)?

- A) Identifying and Analyzing Problems
- B) Determining Requirements
- C) Analyzing System Needs
- D) Implementing and Evaluating the System

Answer: A

Diff: 1 Page Ref: 9





20) When program software is distributed free with the code or computer instructions available for anyone to modify is called

- A) freeware.
- B) code independent software.
- C) a distributed system.
- D) open source software.

Answer: D

Diff: 1 Page Ref: 5

21) When groups need to work together to make semi-structured or unstructured decision, a solution is to use a(n)

- A) executive support system.
- B) group decision support system.
- C) expert system.
- D) knowledge work system.

Answer: B

Diff: 1 Page Ref: 3

22) A standardized language in which a system is broken down into a use case model is called

- A) artificial intelligence.
- B) a distributed system.
- C) the unified modeling language.
- D) multiview.

Answer: C

Diff: 2 Page Ref: 17

23) Which of the following is not one of the fundamental components of the agile approach?

- A) Pressure.
- B) Values.
- C) Principles.
- D) Core practices.

Answer: A

Diff: 2 Page Ref: 14

24) Which of the following is not one of the four values of the agile approach?

- A) Communication.
- B) Expertise
- C) Simplicity
- D) Courage

Answer: B

Diff: 2 Page Ref: 14

25) Which of the following is a human need taken into account when considering the human-computer interaction?

- A) The hardware that the system will run on.
- B) The pleasing, aesthetic and enjoyable aspects of using the system.
- C) The amount of training that will be required.
- D) The kind of monitoring that will take place for compliance.

Answer: B

Diff: 1 Page Ref: 11

1.2 True/False

1) A management information system in the context of transaction processing systems.

Answer: F

Diff: 2



2) Knowledge work systems use common software tools to manipulate but not create new information.

Answer: FALSE



25) Which of the following is a human need taken into account when considering the human-computer interaction?

- A) The hardware that the system will run on.
- B) The pleasing, aesthetic and enjoyable aspects of using the system.
- C) The amount of training that will be required.
- D) The kind of monitoring that will take place for compliance.

Answer: B

Diff: 1 Page Ref: 11

1.2 True/False

1) A management information system departs from the traditional transaction processing system in that it emphasizes the support of decision making in all its phases.

Answer: FALSE

Diff: 2 Page Ref: 3

2) Knowledge work systems use common software tools to manipulate but not create new information.

Answer: FALSE

Diff: 1 Page Ref: 3

3) Computer supported collaborative work might include groupware for teams via networked computers.

Answer: TRUE

Diff: 2 Page Ref: 4

4) User involvement throughout the systems project is of little importance in the successful development of business information systems.

Answer: FALSE

Diff: 1 Page Ref: 6

5) The three primary roles of the systems analyst are as consultant, supporting expert, and change agent.

Answer: TRUE

Diff: 2 Page Ref: 6

6) When analysts are hired specifically from outside the business to address information systems issues within a business, they are acting as supporting experts.

Answer: FALSE

Diff: 1 Page Ref: 6

7) Each phase of the system development life cycle is accomplished as a discrete, separate step.

Answer: FALSE

Diff: 2 Page Ref: 8

8) The first phase that the analyst enters into is that of determining information

requirements for the particular users involved.

Answer: FALSE

Diff: 2 Page Ref: 9

9) A systems r

Answer: TF

Diff: 1



10) Structured techniques like the structure charts and pseudocode are chiefly useful during the system evaluation and implementation phase.

Answer: FALSE



business.

Answer: information

Diff: 1 Page Ref: 1

2) _____ are computerized information systems developed to process large amounts of data for routine business transactions such as payroll and inventory.

Answer: Transaction processing systems

Diff: 3 Page Ref: 2

3) _____ are intended to bring a group together to solve a problem with the help of various supports such as polling, questionnaires, brainstorming, and scenario creation.

Answer: Group decision support systems

Diff: 3 Page Ref: 3

4) An _____, also called a knowledge based system, effectively captures and uses the knowledge of an expert for solving a particular problem experienced in an organization.

Answer: expert system

Diff: 2 Page Ref: 3

5) When analysts perform any activities in the systems development life cycle and are present in the business for an extended period of time, they are acting as _____.

Answer: change agents

Diff: 2 Page Ref: 7

6) The most prominent quality of an analyst is that of a _____.

Answer: problem solver

Diff: 1 Page Ref: 8

7) _____ are situations that the analyst believes can be improved through the use of information systems.

Answer: Opportunities

Diff: 2 Page Ref: 9

8) The _____ summarizes what has been found during the systems analysis phase, provides cost/benefit analyses of alternatives, and makes recommendations on what should be done.

Answer: systems proposal

Diff: 2 Page Ref: 10

9) The _____ contains input and output layouts, file specifications, and processing details for programmers.

Answer: program specifications packet

Diff: 2 Page Ref: 11

10) _____ involves training users to use the system and planning for the smooth conversion of the old system to the new one.

Answer: Implementation

Diff: 2 Page Ref: 11

11) One important justification for CASE tools is to increase analyst _____.

Answer: productivity

Diff: 3 Page Ref: 14

12) _____ tools generate computer code.

Answer: Lower CASE

Diff: 2



13) The _____ and the computer.

Answer: human computer interaction

Diff: 2 Page Ref: 9



16) A disadvantage of using lower CASE tools is that time to maintain systems is increased.

Answer: FALSE

Diff: 1 Page Ref: 14

17) Code generators create error free computer programs.

Answer: TRUE

Diff: 1 Page Ref: 14

18) Object oriented techniques are used when systems must change rapidly in response to dynamic business environments.

Answer: TRUE

Diff: 2 Page Ref: 17

19) The four values of the agile approach are communication, simplicity, feedback and courage.

Answer: TRUE

Diff: 2 Page Ref: 14

20) One of the advantages of ecommerce is creating a system that can extend globally.

Answer: TRUE

Diff: 2 Page Ref: 5

21) ERP is a method for developing Web sites for a single user group.

Answer: FALSE

Diff: 1 Page Ref: 5

22) Mcommerce systems are developed for handheld wireless devices.

Answer: TRUE

Diff: 1 Page Ref: 5

23) Open source software is distributed for free and then users pay for updates to the software.

Answer: FALSE

Diff: 1 Page Ref: 5

24) The open source software community is a monoculture, a single unified community.

Answer: FALSE

Diff: 2 Page Ref: 5

25) The human-computer interaction takes into account human frustrations and feelings.

Answer: TRUE

Diff: 1 Page Ref: 9

1.3 Fill-in-the-Blank

1) Decision makers are beginning to understand that _____ is not just a byproduct of conducting business, but a critical factor in determining the success or failure of a

business.

Answer: information

Diff: 1 Page Ref: 1

2) _____ are used to collect and analyze large amounts of data for research.

Answer: Text Mining

Diff: 3



3) _____ are intended to bring a group together to solve a problem with the help of various supports such as polling, questionnaires, brainstorming, and scenario creation.



- B) expediting the local area network
- C) increasing productivity
- D) integrating the work done during life cycle stages

Answer: B

Diff: 1 Page Ref: 14

15) An encyclopedia that is used to store all project information is called

- A) a data dictionary.
- B) an upper CASE tool.
- C) a CASE repository.

D) a lower CASE tool.

Answer: C

Diff: 3 Page Ref: 14

16) Which of the following is not a dimension used to categorize an open source community?

- A) Programming style
- B) Environment
- C) User community
- D) Licensing

Answer: A

Diff: 3 Page Ref: 5

17) Which of the following is not an advantage of mounting an application on the Web?

- A) It is easy to create a Web site that different cultures can relate to.
- B) the possibility of 24-hour access for users
- C) increasing awareness of the availability of a service, product, person, industry or group
- D) standardizing the design of the interface

Answer: A

Diff: 2 Page Ref: 4-5

18) Enterprise resource planning systems integrate

- A) different cultures across the globe in an ecommerce environment.
- B) legacy systems into an extranet.
- C) information systems existing on different management levels.
- D) resources so that capital expenditures are minimized.

Answer: C

Diff: 2 Page Ref: 5

19) Designing systems for wireless handheld devices is called

- A) small scale systems.
- B) wcommerce.
- C) mcommerce.
- D) enterprise resource planning.

Answer: C

Diff: 1 Page Ref: 5

20) When program software is distributed free with the code or computer instructions available for anyone to modify is called

- A) freeware.
- B) code independent software.
- C) a distributed system.
- D) open source software.

Answer: D

Diff: 1 Page Ref: 5

21) When group decision support systems are structured

- A) executive support system.
- B) group decision support system.
- C) expert system.
- D) knowledge work system.





22) After the system is installed, it must be _____, meaning that the computer programs must be modified and kept up to date.

Answer: maintained

Diff: 2 Page Ref: 12

23) By requiring people, software, and hardware to function in concert, _____ support users in accomplishing a broader spectrum of organizational tasks than transaction processing systems, including decision analysis and decision making.

Answer: management information systems

Diff: 1 Page Ref: 3

24) _____ help executives organize their interactions with the external environment by providing graphics and communications technologies in accessible places such as boardrooms or personal corporate offices.

Answer: Executive support systems (ESS)

Diff: 1 Page Ref: 4

25) _____ is an approach that is intended to facilitate the development of systems that must change rapidly in response to dynamic business environments.

Answer: Object-oriented analysis and design

Diff: 2 Page Ref: 17

1.4 Short Answer

1) List the three primary roles of the systems analyst.

Answer: The three primary roles of the systems analyst are consultant, supporting expert, and agent of change.

Diff: 1 Page Ref: 6

2) Describe how a transaction processing system is different from a decision support system.

Answer: A transaction processing system is used for large amounts of routine transactional data (company inventory or payroll), while decision support systems offers personalized data to an individual or group that is designed to support decision making in all its phases.

Diff: 1 Page Ref: 2

3) List four of the seven phases of the systems development life cycle.

Answer: Identifying problems, opportunities, and objectives - Determining human information requirements - Analyzing system needs - Designing the recommended system - Developing and documenting software - Testing and maintaining the system - Implementing and evaluating the system

Diff: 2 Page Ref: 8

4) Describe the differences between upper CASE tools and lower CASE tools.

Answer: Upper CASE tools allow the analyst to create and modify the system design, while lower CASE tools are used to generate the program code itself.

Diff: 2 Page Ref: 14

5) Describe a situation in which an analyst would choose to use object-oriented systems analysis and design, rather than the systems development life cycle.

Answer: Students should describe a situation in which the system to be designed must change rapidly in response to dynamic business environments or are undergoing continuous maintenance, adaptation and redesign.

Diff: 3 Page Ref: 17





Diff: 2 Page Ref: 10

9) The _____ contains input and output layouts, file specifications, and processing details for programmers.

Answer: program specifications packet

Diff: 2 Page Ref: 11

10) _____ involves training users to use the system and planning for the smooth conversion of the old system to the new one.

Answer: Implementation

Diff: 2 Page Ref: 11

11) One important justification for CASE tools is to increase analyst _____.

Answer: productivity

Diff: 3 Page Ref: 14

12) _____ tools generate computer code.

Answer: Lower CASE

Diff: 2 Page Ref: 14

13) The _____ is the layer of the computer that is between humans and the computer.

Answer: human computer interaction

Diff: 2 Page Ref: 9

14) _____ are available 24/7 and extend globally.

Answer: Web-based Technologies or Ecommerce Applications

Diff: 2 Page Ref: 4

15) _____ is the integration of many information systems existing on different management levels and within different functions.

Answer: Enterprise resource planning

Diff: 2 Page Ref: 5

16) Wireless ecommerce is referred to as _____.

Answer: mcommerce

Diff: 2 Page Ref: 5

17) Software that is distributed free along with the program source code is called _____.

Answer: open source software

Diff: 2 Page Ref: 5

18) The _____ is based on values, principles, and core practices.

Answer: agile approach

Diff: 1 Page Ref: 14

19) The most comprehensive and responsible role that the systems analyst takes on is that of an _____.

Answer: agent of change

Diff: 1

20) The _____ is that systems are best developed through the use of a specific cycle of analysis and user activities.

Answer: systems development life cycle

Diff: 2 Page Ref: 8





Diff: 2 Page Ref: 5

17) Software that is distributed free along with the program source code is called _____.

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18) The _____ is based on values, principles, and core practices.

Answer: agile approach

Diff: 1 Page Ref: 14

19) The most comprehensive and responsible role that the systems analyst takes on is that of an _____.

Answer: agent of change

Diff: 1 Page Ref: 7

20) The _____ is a phased approach to analysis and design that holds that systems are best developed through the use of a specific cycle of analyst and user activities.

Answer: systems development life cycle

Diff: 2 Page Ref: 8

21) An online manual or Frequently Asked Questions (FAQ) would be developed during the _____ phase.

Answer: Developing and Documenting Software

Diff: 2 Page Ref: 11

22) After the system is installed, it must be _____, meaning that the computer programs must be modified and kept up to date.

Answer: maintained

Diff: 2 Page Ref: 12

23) By requiring people, software, and hardware to function in concert, _____ support users in accomplishing a broader spectrum of organizational tasks than transaction processing systems, including decision analysis and decision making.

Answer: management information systems

Diff: 1 Page Ref: 3

24) _____ help executives organize their interactions with the external environment by providing graphics and communications technologies in accessible places such as boardrooms or personal corporate offices.

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Answer: Object-oriented analysis and design

Diff: 2 Page Ref: 17

1.4 Short Answer

1) List the three primary roles of the systems analyst.

Answer: The systems analyst is a supporting expert, a change agent, and agent of change.

Diff: 1



2) Describe how a transaction processing system is different from a decision support system.

Answer: A transaction processing system is used for large amounts of routine transactional data (company inventory or payroll), while decision support systems offers



Diff: 1 Page Ref: 6

7) Each phase of the system development life cycle is accomplished as a discrete, separate step.

Answer: FALSE

Diff: 2 Page Ref: 8

8) The first phase that the analyst enters into is that of determining information

requirements for the particular users involved.

Answer: FALSE

Diff: 2 Page Ref: 9

9) A systems proposal is prepared after the analysis of system needs.

Answer: TRUE

Diff: 1 Page Ref: 10

10) Structured techniques like the structure charts and pseudocode are chiefly useful during the system evaluation and implementation phase.

Answer: FALSE

Diff: 2 Page Ref: 11

11) During the life cycle of an information system, more time is spend in system maintenance than it took to design and develop the system.

Answer: TRUE

Diff: 1 Page Ref: 13

12) CASE tools have the potential of increasing systems analysts' productivity.

Answer: TRUE

Diff: 1 Page Ref: 14

13) CASE tools allow the user to easily draw and modify diagrams.

Answer: TRUE

Diff: 1 Page Ref: 14

14) It is the drawing of diagrams rather than in their modification that CASE tools excel over the use of templates.

Answer: FALSE

Diff: 1 Page Ref: 14

15) Upper CASE tools store data in an encyclopedia called a CASE repository.

Answer: TRUE

Diff: 1 Page Ref: 14

16) A disadvantage of using lower CASE tools is that time to maintain systems is increased.

Answer: FALSE

Diff: 1 Page Ref: 14

17) Code generators create error free computer programs.

Answer: TRUE

Diff: 1 Page Ref: 14

18) Object oriented dynamic bus architecture is used in response to

Diff: 2 Page Ref: 17



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1

19) The four values of the agile approach are communication, simplicity, feedback and



9) In which phase of the SDLC are data flow diagrams constructed?

- A) Determining Human Information Requirements
- B) Analyzing System Needs
- C) Designing the System
- D) Testing and Maintaining the System

Answer: B

Diff: 2 Page Ref: 10

10) During which phase of the SDLC would a programmer develop an FAQ (Frequently Asked Questions)?

- A) Analyzing System Needs
- B) Designing the System
- C) Developing and Documenting Software
- D) Implementing and Evaluating the System

Answer: C

Diff: 2 Page Ref: 11

11) During which phase of the SDLC is the analyst concerned with determining problems within the organization?

- A) Identifying Problems, Opportunities, and Objectives
- B) Determining Human Information Requirements
- C) Analyzing System Needs
- D) Implementing and Evaluating the System

Answer: A

Diff: 1 Page Ref: 9

12) In which phase of the SDLC is the analyst most heavily involved in user training?

- A) Designing the System
- B) Developing and Documenting Software
- C) Testing and Maintaining System
- D) Implementing and Evaluating the System

Answer: D

Diff: 2 Page Ref: 11

13) System maintenance must be performed to

- A) correct software errors.
- B) add capabilities to the software.
- C) incorporate new business requirements to the software.
- D) all of the above.

Answer: D

Diff: 3 Page Ref: 12

14) Which of these is not an approach taken by the analyst when adopting CASE tools?

- A) communicating more effectively with users
- B) expediting the local area network
- C) increasing productivity
- D) integrating the work done during life cycle stages

Answer: B

Diff: 1 Page Ref: 14

15) An encyclopedia that is used to store all project information is called

- A) a data dictionary.
- B) an upper CASE tool.
- C) a CASE repository.

D) a lower CASE tool

Answer: C

Diff: 3



16) Which of the following is not a dimension used to categorize an open source community?

- A) Programming style
- B) Environment