Chapter 02: Investigating System Requirements

1. Systems analysis involves the creation of logical models.
    a. True
    b. False

ANSWER: True
POINTS: 1
REFERENCES: p43
       p58

2. The reason an analyst uses many different models is that each relates to a different aspect of the system.
    a. True
    b. False

ANSWER: True
POINTS: 1
REFERENCES: p43
       p59

3. Sometimes a narrative description is the best form to use for recording information.
    a. True
    b. False

ANSWER: True
POINTS: 1
REFERENCES: p 59

4. A key reason that modeling is important in system development is the complexity of describing information systems.
    a. True
    b. False

ANSWER: True
POINTS: 1
REFERENCES: p58

5. Before gathering detailed information, and analyst identifies every type of stakeholder.
    a. True
    b. False

ANSWER: True
POINTS: 1
REFERENCES: p47

6. In the RMO CSMS project, customers are not considered stakeholders because it is not feasible to interview them or use them in the project activities.
    a. True
    b. False

ANSWER: False
POINTS: 1
REFERENCES: p48

7. Core Process 3 involves defining in great detail what the information system needs to accomplish in order to provide

the organization with the desired benefits.
    a. True
    b. False
ANSWER: True
POINTS: 1
REFERENCES: p42
                p43

8. Beginning analysts often underestimate how much there is to learn about the work the users perform.
    a. True
    b. False
ANSWER: True
POINTS: 1
REFERENCES: p43

9. A fact finding user interview can usually be completed in one comprehensive session.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p50
                p52

10. If the analysts understand the major business processes, it is not usually necessary to create a comprehensive list of all business processes.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p50

11. The first and most important step in preparing for an interview is to determine who should be involved.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p51

12. Asking about error conditions usually is done in later interviews after the analyst understands and documents the basic processing requirements.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p52

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13. A good way to remember the details of an interview is to use a tape recorder.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p53

14. Reviewing existing documentation is a good idea for analysts because it is a dependable source of accurate policies and procedures.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p56

15. When observing business processes, it is not necessary to observe all the processes at the same level of detail.
    a. True
    b. False
ANSWER: True
POINTS: 1
REFERENCES: p57

16. It is a good idea to observe user processes so that the analyst will know exactly how to build the functions into the new system.
    a. True
    b. False
ANSWER: False
POINTS: 1
REFERENCES: p57

17. The term "I'll know it when I see it" applies to one valid way to get requirements definition.
    a. True
    b. False
ANSWER: True
POINTS: 1
REFERENCES: p58

18. A decision point within an activity diagram may be shown with an activity symbol.
    a. True
    b. False
ANSWER: True
POINTS: 1
REFERENCES: p60

19. A synchronization bar in an activity diagram allows multiple agents or actors to participate in a workflow in separate rows.

a. True

b. False

ANSWER: False

POINTS: 1

REFERENCES: p60-61

20. FURPS and FURPS+ are synonymous.

a. True

b. False

ANSWER: False

POINTS: 1

REFERENCES: p46

21. The term technology architecture refers to

a. the software resources which make up the information systems

b. the hardware, network, and system software

c. the combination of information systems and the hardware infrastructure

d. the configuration of the old technology and new technology within an organization

ANSWER: b

POINTS: 1

REFERENCES: p39

22. Application architecture is used to refer to

a. the organization and configuration of all software solutions into information systems

b. the application of the information system to solve business problems

c. the architectural structure of the subsystems within a software application

d. the relationship between software applications and the areas of the organization that they support

ANSWER: a

POINTS: 1

REFERENCES: p40

23. Which of the following items is NOT a part of the application architecture?

a. software

b. programming languages and development tools

c. user-interface technology

d. virtual private networks

ANSWER: d

POINTS: 1

REFERENCES: p40

24. Which of the following describes what the system is required to do?

a. Functional requirements

b. General requirements

c. User requirements

d. Nonfunctional requirements

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ANSWER: a
POINTS: 1
REFERENCES: p45

25. _____ requirements are based on the procedures and rules that the organization uses to run its business.
    a. Physical
    b. Functional
    c. Logical
    d. System
ANSWER: b
POINTS: 1
REFERENCES: p45

26. _____ requirements are characteristics of the system other than the business procedures it must support.
    a. System
    b. Physical
    c. Nonfunctional
    d. Implementation
ANSWER: c
POINTS: 1
REFERENCES: p45

27. The S in the FURPS acronym stands for _____.
    a. Screen and reporting requirements
    b. Software requirements
    c. System requirements
    d. Security requirements
ANSWER: d
POINTS: 1
REFERENCES: p45-46

28. The P in the FURPS acronym stands for _____.
    a. Physical requirements
    b. Performance requirements
    c. People requirements
    d. Processing requirements
ANSWER: b
POINTS: 1
REFERENCES: p45-46

29. _____ requirements are most often documented in graphical and textual models.
    a. Security
    b. Nonfunctional
    c. Technical
    d. Functional

ANSWER: d
POINTS: 1
REFERENCES: p59

30. Diagrams and schematic representations of some aspect of a system are examples of a _____ model.
     a. logical
     b. graphical
     c. mathematical
     d. textual
ANSWER: b
POINTS: 1
REFERENCES: p59

31. A representation of some aspect of the system being built is a _____.
     a. requirement
     b. technique
     c. model
     d. user interface
ANSWER: c
POINTS: 1
REFERENCES: p58

32. A series of formulas that describe technical aspects of a system is a(n) model.
     a. textual
     b. descriptive
     c. graphical
     d. mathematical
ANSWER: d
POINTS: 1
REFERENCES: p59

33. What does the Acronym UML stand for?
     a. User Modification Language
     b. Unified Modeling Language
     c. User Mode Listings
     d. Unix Modeling Language
ANSWER: b
POINTS: 1
REFERENCES: p59

34. The term _____ refers to all the people who have an interest in the successful implementation of the system.
     a. users
     b. clients
     c. managers
     d. stakeholders

ANSWER: d
POINTS: 1
REFERENCES: p47

35. Persons who regularly interact with the system as part of their jobs are called _____.
    a. user stakeholders
    b. client stakeholders
    c. operational stakeholders
    d. executive stakeholders
ANSWER: c
POINTS: 1
REFERENCES: p47

36. What type of stakeholders are those that do not use the system on day to day tasks, but use information, such as reports, from the system.
    a. Business stakeholders
    b. Client stakeholders
    c. External stakeholders
    d. Executive stakeholders
ANSWER: d
POINTS: 1
REFERENCES: p48

37. What do we call the person or group who provides funding for the development of the new system?
    a. Oversight committee
    b. Client
    c. Board of directors
    d. Department head
ANSWER: b
POINTS: 1
REFERENCES: p48

38. The group that provides direction for the configuration of the new system in the existing computing environment are called _____.
    a. Technical stakeholders
    b. Support staff
    c. System programmers
    d. Operational stakeholders
ANSWER: a
POINTS: 1
REFERENCES: p48

39. Clients play what role in the development of the new system?
    a. Develop the project plan
    b. Fund the project

c. Define business processes

d. Lead the project team

ANSWER: b

POINTS: 1

REFERENCES: p48

40. Questionnaires can be useful in information gathering when users _____.

a. are widely distributed geographically

b. need prompting to respond to questions

c. are not well-informed

d. do not have time for interviews

ANSWER: a

POINTS: 1

REFERENCES: p54

41. Questions that have a simple, definitive answer are called _____ questions.

a. true/false

b. close-ended

c. open-ended

d. multiple choice

ANSWER: b

POINTS: 1

REFERENCES: p51

42. Which of the following is normally the most time-consuming and resource-expensive operation?

a. Building prototypes

b. Observing business processes

c. Researching vendor solutions

d. Interview stakeholders

ANSWER: d

POINTS: 1

REFERENCES: p50

43. Questionnaires can be used to ask questions that _____.

a. determine user opinions

b. determine the stakeholders

c. define system functions

d. detail user procedures

ANSWER: a

POINTS: 1

REFERENCES: p54

44. During a fact-finding interview, an important guideline is ____.

a. to include as many users as possible

b. not to waste project time by including too many analysts

    c. to probe to get sufficient details

    d. to include the client in important decisions

ANSWER: c

POINTS: 1

REFERENCES: p52

45. The strength of closed-ended questions is that they _____.

    a. invite discussion and elaboration

    b. limit answers to a set of choices

    c. speed up the interview process

    d. are easier for the users to answer

ANSWER: b

POINTS: 1

REFERENCES: p51

46. Which of the following statements is correct about questionnaires?

    a. Questionnaires are well suited to help you learn about processes, workflows, or techniques.

    b. Stakeholders always return questionnaires that contain many open-ended questions.

    c. Questionnaires have a limited and specific use in information gathering.

    d. Questionnaires are the most frequently used method to gather user information.

ANSWER: c

POINTS: 1

REFERENCES: p54-55

47. The most important step in preparing for an interview is to _____.

    a. determine the correct users

    b. build a list of questions

    c. establish an objective

    d. determine the project team members

ANSWER: c

POINTS: 1

REFERENCES: p51

48. Asking many detailed, probing questions during an initial interview usually _____.

    a. makes the users uncomfortable

    b. is necessary to understand the business process

    c. can wait until follow-up interviews

    d. indicates that the analyst does not understand the business

ANSWER: b

POINTS: 1

REFERENCES: p52

49. _____ is an important part of each interview.

    a. Follow-up

    b. Review of the requirements models

  c. An agenda

  d. Finalize processing decisions

ANSWER: a

POINTS: 1

REFERENCES: p54

50. _____ is an important part of the follow-up after an interview.

  a. Establishing documentation guidelines

  b. Building models

  c. Making copies of everyone's notes

  d. Setting the time for the next meeting

ANSWER: b

POINTS: 1

REFERENCES: p54

51. Every successful interview requires ____.

  a. open-ended questions

  b. preparation

  c. an activity diagram

  d. finding the exception conditions

ANSWER: b

POINTS: 1

REFERENCES: p51

52. As part of the interview process, any unresolved issues should be _____.

  a. noted in the analyst's meeting notes

  b. given a tentative resolution

  c. brought to the attention of the appropriate manager

  d. put on an open-items list

ANSWER: d

POINTS: 1

REFERENCES: p54

53. One of the dangers in researching vendor solutions is that users and analysts _____.

  a. may discover and desire too many unimportant "bells and whistles"

  b. may not understand the vendor solution

  c. may discover different methods to perform business processes

  d. may want to buy one of these solutions prematurely

ANSWER: d

POINTS: 1

REFERENCES: p57

54. The term "I'll know it when I see it" refers to what method of requirements definition.

  a. Questionnaires

  b. User interviews

    c. Observing business procedures

    d. Collecting active user comments

ANSWER: d

POINTS: 1

REFERENCES: p58

55. One way to show multiple, independent alternative paths within an activity diagram is with a _____.

    a. synchronization bar

    b. swimlane

    c. decision diamond

    d. activity oval

ANSWER: c

POINTS: 1

REFERENCES: p60

56. Workflows can be documented using _____.

    a. swimlanes

    b. use case diagrams

    c. class diagrams

    d. activity diagrams

ANSWER: d

POINTS: 1

REFERENCES: p560

57. Looping in an activity diagram is best represented using what?

    a. synchronization bars

    b. decision points

    c. activity ovals

    d. lines with arrowheads

ANSWER: a

POINTS: 1

REFERENCES: p560

58. One important reason for prioritizing requirements is to _____.

    a. assign work within an iteration

    b. speed up the project

    c. avoid confusing the users

    d. avoid scope creep

ANSWER: d

POINTS: 1

REFERENCES: p44

59. The "+" in FURPS+ includes which of the following types of requirements? (choose two)

    a. Supportability requirements

    b. Performance constraints

    c. Reliability constraints

    d. Nonfunctional requirements

    e. Design constraints

    f. User interface requirements

ANSWER: a, e

POINTS: 2

REFERENCES: p46

60. Which are the major business themes that guide analysts in fact finding activities? (chose 3)

    a. What are the business processes?

    b. Who performs the business processes?

    c. How are the business processes performed?

    d. What are the objectives of a business process? (What should it accomplish?)

    e. What is produced by the business process?

    f. What information is needed?

ANSWER: a, c, f

POINTS: 2

REFERENCES: p50-51

61. What are the two primary benefits of reviewing the documentation of existing inputs, outputs, and procedures. (choose 2)

    a. Have a repository of existing documentation

    b. Obtain a preliminary understanding

    c. Encourages the users to prepare for interviews

    d. Help build models of existing procedures

    e. Ensure complete documentation of procedures

    f. Serve as visual aids in interview discussions

ANSWER: b, f

POINTS: 2

REFERENCES: p55-56

62. Two benefits of researching vendor solutions include _____ and _____. (Choose two)

    a. encouraging the users to buy a vendor solution immediately

    b. helping analysts discover state of the art solutions

    c. helping users generate new ideas for business functions

    d. speeding up the development project

    e. informing senior management about competitors

    f. reducing the risk of implementing a new system

ANSWER: b, c

POINTS: 1

REFERENCES: p57

63. Which two of the following are activities of Core Process 3? (choose two)

    a. Gather detailed information

    b. Plan the project iterations

    c. Build an iteration schedule

    d. Define test data

    e. Develop user-interface dialogs

    f. Develop architectural structure

ANSWER: a, e

POINTS: 2

REFERENCES: p42

64. Core Process 3 is called "Discover and understand details." Another term that is used to describe these activities is _____ activities.

ANSWER: analysis
                Analysis
                systems analysis
                Systems Analysis

POINTS: 2

REFERENCES: p42

65. The U in the FURPS acronym stands for _____.

ANSWER: usability
                Usability
                usability requirements
                Usability requirements

POINTS: 2

REFERENCES: p45

66. The R in the FURPS acronym stands for _____.

ANSWER: reliability requirements
                Reliability requirements
                reliability
                Reliability

POINTS: 2

REFERENCES: p45

67. The P in the FURPS acronym stands for _____.

ANSWER: performance requirements
                performance
                Performance
                Performance requirements

POINTS: 2

REFERENCES: p46

68. _____ requirements describe operational characteristics related to users such as work procedures and online help.

ANSWER: Usability
                usability

POINTS: 2

REFERENCES: p45

69. _____ requirements describe the dependability of a system such as service outages and incorrect processing.

ANSWER: Reliability
      reliability

POINTS: 2

REFERENCES: p45

70. _____ requirements describe operational characteristics related to measures of workload such as throughput and response time.

ANSWER: Performance
      performance

POINTS: 2

REFERENCES: p46

71. _____ requirements describe how access to the software application will be controlled and data will be protected.

ANSWER: Security
      security

POINTS: 2

REFERENCES: p46

72. _____ requirements describe constraints such as programming languages, tools, and communication protocols for distributed portions of the system.

ANSWER: Implementation
      implementation

POINTS: 2

REFERENCES: p46

73. _____ requirements describe interactions between systems, e.g. the method of communication between one system and another system.

ANSWER: Interface
      interface

POINTS: 2

REFERENCES: p46

74. _____ requirements describe how a system is configured, monitored, maintained, and updated.

ANSWER: Supportability
      supportability

POINTS: 2

REFERENCES: p46

75. Use case diagrams, class diagrams, sequence diagrams are all examples of standard modeling method?

ANSWER: UML
      Unified Modeling Language
      Unified modeling language

POINTS: 2

REFERENCES: p59

76. Persons who have an interest in the successful implementation of the new system are called _____.

ANSWER: stakeholders

POINTS: 2

REFERENCES: p47

77. Persons within an organization who have a significant interest in its operation are _____ stakeholders.
ANSWER: internal
POINTS: 2
REFERENCES: p47

78. Persons outside an organization's control who interact with the system or who have an interest in its operation are called _____ stakeholders.
ANSWER: external
POINTS: 2
REFERENCES: p47

79. Questions that have a simple, definitive answer are called _____ questions.
ANSWER: closed-ended
POINTS: 2
REFERENCES: p51

80. Questions that encourage discussion are called _____ questions.
ANSWER: open-ended
POINTS: 2
REFERENCES: p51

81. The most important and first step in preparing for an interview with a user is to establish the _____ of the interview.
ANSWER: objective
POINTS: 2
REFERENCES: p51

82. A _____ is the sequence of processing steps that completely handles one business transaction.
ANSWER: workflow
POINTS: 2
REFERENCES: p57

83. An _____ describes the sequential flow of user activities.
ANSWER: activity diagram
                 workflow diagram
POINTS: 2
REFERENCES: p60

84. One way to show concurrent paths within an activity diagram is with a _____.
ANSWER: synchronization bar
POINTS: 2
REFERENCES: p60

85. In order to show all the activities of a single agent or organizational unit together, a activity diagram contains what construct?

ANSWER: swimlane
                    swimlane heading
                    Swimlane
                    Swimlane heading

POINTS: 2

REFERENCES: p60

86. List the activities of Core Process 3: Discover and Understand Details

ANSWER: 1. Gather detailed information
                    2. Define requirements
                    3. Prioritize requirements
                    4. Develop user-interface dialogs
                    5. Evaluate requirements with users

POINTS: 5

REFERENCES: p42

87. List the elements that are referred to by the FURPS+ acronym.

ANSWER: F = Functional requirements
                    U = Usability requirements
                    R = Reliability requirements
                    P = Performance requirements
                    S = Security requirements
                    + = Other constraints including Design constraints, Implementation requirements, interface requirements, physical requirements, supportability requirements.

POINTS: 5

REFERENCES: p45-46

88. List the six techniques used to gather detailed requirements information.

ANSWER: 1. Interview users
                    2. Distribute questionnaires
                    3. Review documents
                    4. Observer users
                    5. Research vendor solutions
                    6. Collect active user comments

POINTS: 5

REFERENCES: p50

89. List five steps in the activity to interview users and other stakeholders.

ANSWER: 1. Prepare detailed questions
                    2. Meet with users
                    3. Discuss answers and procedures
                    4. Document answers
                    5. Follow-up on open issues

POINTS: 5

REFERENCES: p50

90. List the three major question themes that guide analysts in fact finding activities.

ANSWER: 1. What are the business processes?
                    2. How are the business processes performed?
                    3. What information is required?

POINTS: 5
REFERENCES: p50