

## **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, an 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

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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.

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- 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

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*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

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*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

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- 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



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- 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

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- 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

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- 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

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- 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

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- 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.

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*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

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*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?

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**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. Observe 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?



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*POINTS:* 5

*REFERENCES:* p50