

## ***DATA CENTERS MANAGEMENT***

### **MCQ – Revision**

- *Exam of SWE Agile (Same Subject)*
- *Points Mentioned in the Book*

Mansoura University  
 Faculty of Computer and Information  
 Total Grade: Max. 60 marks  
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## Final Term Exam - Model 2

Academic Year 2021/2022  
 Course Name: Agile Methods (SWE136)  
 Level: 4<sup>th</sup> year SWE Program  
 Time Allowed: 1.5 Hours 17 Jan 2022

Choose the correct answer: (40 x 1 Marks)

1. Who manages scrum Team ?  
 A) Nobody    B) Scrum Master    C) Product Owner    D) Developer
2. Scrum teams commit to ship working software through set intervals called \_\_\_\_\_.  
 A) Iterations    B) Sprints    C) Boards    D) Artifacts
3. The name of \_\_\_\_\_ comes from the rugby term scrum, where team members lunge at each other to achieve their objectives.  
 A) agile    B) SCRUM    C) Kanban    D) xp
4. The Requirements can be represented in Object-Oriented way like \_\_\_\_\_.  
 A) User Stories    B) Use case    C) SRS    D) WBS
5. The completion of steps in sequential order, one after another. Called \_\_\_\_\_.  
 A) Sequence    B) Iteration    C) Selection.    D) Mutate
6. ... isn't belong to principle of agile  
 A) Build Projects Around Motivated Individuals    B) Face-to-Face Conversations  
 C) Working Software is Key    D) Don't welcome to change
7. "We will value face to face communication" is part of which Agile Value?  
 A) Responding to Change Over Following a Plan    B) Working software over Comprehensive Documentation  
 C) Customer Collaboration Over Contract Negotiation    D) Individuals and Interactions over Processes and Tools
8. the reality of any project is ...  
 A) Customers know exactly what they want    B) Developers know exactly how to build it.  
 C) Nothing will change along the way    D) Developers discover how to build it when they build it
9. the customer requirement stored in ...  
 A) Product backlog    B) Sprint backlog    C) Database    D) GitHub
10. The main roles in Scrum are .....  
 A) ScrumMaster    B) Product Owner    C) Team    D) scrum master, product owner, team
11. During the Sprint Planning the Scrum Team decides...  
 A) What change need to be made to the product backlog.  
 B) What stories can be committed for the sprint and plan of action to execute  
 C) What stories are done – done.  
 D) What didn't go well in previous iteration
12. According to the Agile Principles, ...., this is the highest priority.  
 A) attention to details    B) attention to scrums planning    C) deliver value faster    D) face-to-face conversion
13. in the sprint planning meeting we must produce ....  
 A) User story    B) Sprint backlog    C) Acceptance criteria    D) Documentation
14. .... who responsible for understands the vision of the product and he's coming back to the team and he's saying that he know these items are the most important items  
 A) Product owner    B) Scrum master    C) Development team    D) Project manager
15. .... are simple, those are conditions added to the user story that tells you what the user story must do  
 A) user story    B) notes    C) Acceptance criteria    D) product backlog
16. .... methods attempt to develop a system incrementally, by building a series of prototypes and constantly adjusting them to user requirements.  
 A) Agile    B) JAD    C) O-O    D) RAD
17. Structured walk-throughs take place throughout the SDLC and is called \_\_\_\_\_ in maintenance phase.  
 A) code review    B) test review    C) design-review    D) planning phase
18. Structured walk-throughs take place throughout the SDLC and is called \_\_\_\_\_ in implementation phase.  
 A) code review    B) test review    C) design-review    D) planning phase
19. Structured walk-throughs take place throughout the SDLC and is called \_\_\_\_\_ in Design phase.  
 A) code review    B) test review    C) design-review    D) planning phase
20. .... the three elements of a User Story.  
 A) card, criteria, calculation    B) card, conversion, change    C) card, conversion, confirmation    D) card, change, calculation
21. Agile is a \_\_\_\_\_.  
 A) zigzag    B) zigzag and iterative    C) Iterative    D) Sequential
22. During the ..... meeting the Scrum Team decides what's stories can be committed for the sprint & a plan of action to execute  
 A) sprint review    B) Retrospective daily    C) standup    D) sprint planning
23. the syntax of user story is ....  
 A) I want to <perform task> As a <user type> so that I can <achieve a goal>  
 B) As a <user type> I want to <perform task>  
 C) As a <user type> I want to <perform task> so that I can <achieve a goal>  
 D) I want to <perform task> As a <user type> so that I can <achieve a goal>
24. .... is a simple description of a product feature that is written from end users' point of view.  
 A) User story    B) Product backlog    C) Sprint backlog    D) Notes
25. .... who is responsible for ensuring Scrum is understood.  
 A) Scrum master    B) Product owner    C) Development team    D) tester
26. .... step aims to correct errors and adapt to changes in the environment  
 A) Analysis    B) Maintenance    C) Evaluation    D) Implementation

- Answer is B
27. one of many tools for SDLC uses various symbols and shapes to represent data flow, processing, and storage. A) State Machine diagram B) Class Diagram C) Use Case D) DFD
28. tests system concepts and provides an opportunity to examine input, output, and user interfaces before final decisions are made. A) Modeling B) Case Tools C) Prototypes D) Low Fidelity
29. It is a problem-solving technique that improves the system and ensures all the components of the system work efficiently to accomplish their purpose. A) Implementation B) Design C) Prototyping and Wireframing D) Planning
30. What are the right words you can use at the analysis phase? A) Implementation and testing B) Design and Specifying C) Prototyping and Wireframing D) Understanding and Maintaining
- Agile is a mindset or way to thinking defined by 4 values guided by 12 principles. A) Agile B) Waterfall C) Sprint D) Waterfall
32. development team must be ..... A) 4,12 B) 4,10 C) 5,10 D) 5,12
33. who Talk to the stakeholders. A) Scrum master B) Product owner C) No sub-teams. self organized, cross functional, no sub teams D) Tester
34. framework is a very lightweight framework that was designed by agile to solve complex adaptive problems that require sprinting or iterating through a solution. A) Scrum B) Waterfall C) Sprint D) Agile
35. is responsible to update the Product Backlog and ensure the user stories are refined A) Project manager B) Scrum master C) Development team D) Product owner
36. a time box period to deliver potentially shippable work. A) Backlog B) Sprint planning meeting C) Sprint review meeting D) Sprint
37. Scrum is iterative. The iteration is called ..... A) sprint B) IT1 C) sprint D) meeting
38. In daily standup meeting everybody answers the three questions. A) What task will take in the next sprint? what duration of the next sprint? what about the salary? B) What is the role of scrum master? what is the role of scrum? what is the role of product owner? C) What did I do yesterday? What will I do today, Do I see any impediment? D) What about ceremonies? who attend the ceremonies? when deliver the product to customer?
39. is a mindset or way to thinking defined by 4 values guided by 12 principles and manifested through many different practices. A) Agile B) Waterfall C) Problem solving D) Design thinking
40. waterfall model can be used over Scrum when ..... A) client needs are well defined and simple B) requirements are subjected to be changed C) a project is not explained properly D) product owner didn't know what are user's requirement

**Q2. True or false:**

(20 x 1 Marks)

- Scrum defines a practice called a Daily Scrum, often called the Daily Standup. The Daily Scrum is daily meeting limited to 15 minutes.
- Once the Sprint starts, the team executes on the Sprint Backlog. Scrum does not specify how the team should execute. That is left for the team to decide.
- In Sprint Planning, the team chooses the backlog items they will work on in the upcoming sprint.
- The Product Backlog is a prioritized list of value the team can deliver. The Product Owner owns the backlog and adds, changes, and reprioritizes as needed.
- Scrum is iterative. The entire lifecycle is completed in fixed time-period called a Sprint.
- A persona shows how data moves through an information system but does not show program logic or processing steps.
- Fictional persona does not emerge from user research (unlike the other personas) but it emerges from the experience of the UX design team.
- The primary persona is the character mainly design and build the product for.
- Personas are fictional characters, which you create based upon your research in order to represent the different user types that might use your service, product, site, or brand in a similar way.
- RAD Systems can be developed more quickly with significant cost savings.
- JAD is more expensive and can be cumbersome if the group is too large relative to the size of the project.
- An agile approach requires intense interactivity between developers and individual users, and does not begin with an overall objective
- in waterfall model when we end a phase we can not go back and edit it again
- agile methods typically use a spiral model, which represents a series of iterations, or revisions, based on user feedback. That is left for the team to decide.
- In Sprint Planning, the team chooses the backlog items they will work on in the upcoming sprint.
- The Product Backlog is a prioritized list of value the team can deliver. The Product Owner owns the backlog and changes, and reprioritizes as needed.
- Only one Sprint is planned at a time.
- User stories are simple, those are conditions added to the project features that tells you what the product must do.
- prioritize user stories is NOT a core responsibility of a Scrum Master.

Good Luck! Assoc Prof Samir Abdelrazek

End of Exam

Model 2 SWE

Page

- 1) TRUE 2) TRUE 3) TRUE 4) TRUE 5) TRUE 6) TRUE 7) TRUE 8) TRUE 9) TRUE 10) TRUE  
 11) TRUE 12) TRUE 13) TRUE 14) TRUE 15) TRUE 16) TRUE 17) TRUE 18) TRUE 19) TRUE  
 20) TRUE ایہ دہ بار جالہ بالصلة علی النبی کدھ

# Data Center Concepts

- 1) \_\_\_\_\_ is a process of planning a new data center system or replacing an existing system by defining its components or modules to satisfy the specific requirements.
- Data centers Design**
  - Data center Requirement
  - Data centers model

Data center System Analysis	Data center System Design
consists of those activities that enable a person to understand and specify what the new datacenter system should accomplish.	consists of those activities that enable a person to describe in detail how the information system will actually be implemented to provide the needed solution.
The operative words here are <b>understanding and specifying</b> .	how the system will actually work.

- 2) What is required for the new system to solve the problem
- Analysis**
  - Design
  - Both
- 3) How the system will operate to solve the problem
- Analysis
  - Design**
  - Both

- 4) An information system has five key components hardware, software, data, processes, and people
  - a. True
  - b. False
- 5) \_\_\_\_\_ consists of everything in the physical layer of the information system
  - a. Hardware
  - b. Software
  - c. Processes
  - d. People
- 6) number of transistors on an integrated circuit chip would double about every 24 months.
  - a. Brooks Law
  - b. Moore's Law
- 7) programs that control the hardware and produce the desired information or results.
  - a. Hardware
  - b. Software
  - c. Processes
  - d. People

- 8) \_\_\_\_\_ is a system adapted for use in many different types of companies.
- A horizontal system
  - A vertical system
  - Both
- 9) \_\_\_\_\_ is designed to meet the unique requirements of a specific business or industry
- A horizontal system
  - A vertical system
  - Both
- 10) A company must consider how a new system will interface with older systems, which are called \_\_\_\_\_
- New Systems
  - legacy systems
  - both
- 11) Data is the raw material that an information system transforms into useful information.
- True
  - False

- 12) \_\_\_\_\_ describe the tasks and business functions that users, Managers, and IT staff members perform to achieve specific results, Building Blocks of the IS
- Hardware
  - Software
  - Processes**
  - People
- 13) \_\_\_\_\_ who have an interest in an information system are called stakeholders. **People are the most important part of IS.** Stakeholders: Management stuff, users, end users, IT stuff, Sponsors, anyone related to the project.
- Hardware
  - Software
  - Processes
  - People**
- 14) Domain Driven Design: is the concept that the structure and language of software code (class names, class methods, class variables) should match the business domain.
- True**
  - False

# BUSINESS TODAY

- 15) \_\_\_\_\_ enabled computer-to-computer data transfer, usually over private telecommunications lines. Used as a data-sharing arrangement between companies
- electronic data interchange (EDI)
  - A supply chain (SC)
  - SCM (Supply chain management)
  - Both
- 16) \_\_\_\_\_ refers to all the companies who provide materials, services, and functions needed to provide a product to a customer.
- electronic data interchange (EDI)
  - A supply chain (SC)
  - SCM (Supply chain management)
  - Both
- 17) \_\_\_\_\_ is complex and dynamic, specialized software helps businesses manage inventory levels, costs, alternate suppliers, and much more.
- electronic data interchange (EDI)
  - A supply chain (SC)
  - SCM (Supply chain management)
  - Both

- 18) \_\_\_\_\_ Sets of inter-related procedures using IT infrastructure in a business enterprise to generate and disseminate desired information. designed to support decision making by the people associated with the enterprise in the process of attainment of its objectives.
- BUISNESS INFORMATION SYSTEMS (BIS)**
  - ECS (Enterprise Computing System)
  - TPS (Transaction Processing System)
  - BSS (Business Support System)
- 19) information systems that support company-wide operations and data management requirements. enterprise resource planning (ERP) systems provide cost-effective support for users and managers throughout the company.
- BUISNESS INFORMATION SYSTEMS (BIS)**
  - ECS (Enterprise Computing System)**
  - TPS (Transaction Processing System)
  - BSS (Business Support System)
- 20) \_\_\_\_\_ process data generated by day-to-day business operations. systems typically involve large amounts of data and are mission-critical systems because the enterprise cannot function without them.
- BUISNESS INFORMATION SYSTEMS (BIS)**
  - ECS (Enterprise Computing System)
  - TPS (Transaction Processing System)**

d. BSS (Business Support System)

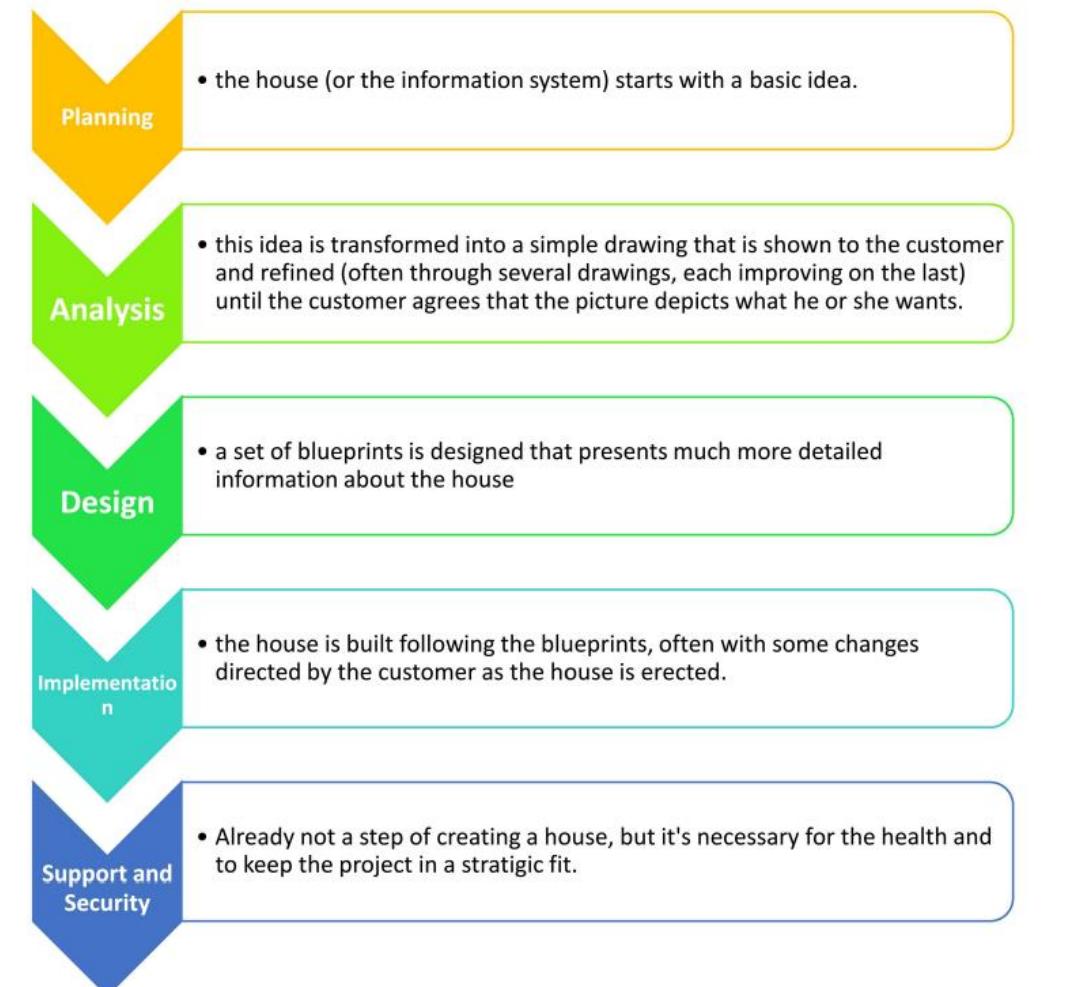
- 21) Provide job-related information support to users at all levels of a company These systems can analyze transactional data, generate information needed to manage and control business processes, and provide information that leads to better decision making.
- a. KMS (Knowledge Management System)
  - b. ECS (Enterprise Computing System)
  - c. TPS (Transaction Processing System)
  - d. BSS (Business Support System)
- 22) Use a large database called a knowledge base that allows users to find information by entering keywords or questions in normal English phrases. A knowledge management system uses inference rules, which are logical rules that identify data patterns and relationships.
- a. KMS (Knowledge Management System)
  - b. ECS (Enterprise Computing System)
  - c. TPS (Transaction Processing System)
  - d. UPS (User Productivity System)
- 23) \_\_\_\_\_ technology that improves productivity of users include email, voice mail, video and web conferencing, word processing, automated calendars, database management. e Groupware programs enable users to share data, collaborate on projects, and work in teams.
- a. KMS (Knowledge Management System)

- b. ECS (Enterprise Computing System)
  - c. TPS (Transaction Processing System)
  - d. UPS (User Productivity System)
- 24) \_\_\_\_\_ include systems analysts, programmers, accountants, researchers, trainers, human resource specialists, and other professionals. Knowledge workers provide support for the organization's basic functions.
- a. Knowledge workers
  - b. Top Level Management
  - c. Middle Level Management
  - d. All of the mentioned
- 25) In many companies, operational users also need information to handle tasks and make decisions that were assigned previously to supervisors. This trend, called empowerment.
- a. True
  - b. False
- 26) A possible disadvantage of prototyping is that important decisions might be made too early, before business or IT issues are understood thoroughly.
- a. True
  - b. False
- 27) agile methods, also called \_\_\_\_\_, which include the latest trends in software development

- a. adaptive methods
- b. traditional methods
- c. structured methods
- d. none

## IS As Building A House

In many ways, building an information system is similar to building a **house**. As illustrated in figure 1-12 about the basic steps of creating a house.



# System Development Methods

## AGILE MANIFESTO 12 PRINCIPLES

- Software is delivered early and continuously through the development process, satisfying the customer.
- Changing requirements are embraced regardless of when they occur in the development process.
- Working software is delivered frequently to the customer.
- Customers and developers work together to solve the business problem.
- Motivated individuals create solutions; provide them the tools and environment they need, and trust them to deliver.
- Face-to-face communication within the development team is the most efficient and effective method of gathering requirements.
- The primary measure of progress is working, executing software.
- Both customers and developers should work at a pace that is sustainable. That is, the level of work could be maintained indefinitely without any worker burnout.
- Agility is heightened through attention to both technical excellence and good design.
- Simplicity, the avoidance of unnecessary work, is essential.
- Self-organizing teams develop the best architectures, requirements, and designs.
- Development teams regularly reflect on how to improve their development processes.

- 28) Because it focuses on processes that transform data into useful information, structured analysis is called a \_\_\_\_\_ .
- a. process-centered technique
  - b. Object centered technique
  - c. Both

- 29) \_\_\_\_\_ To has a one instance of a system (Hardware or Software and upgrade it to expand the Capacity of the business work. (User Requests, More functions) ex: Upgrade Hard disks from 500TB to 1 Peta Bytes.
- a. Scale Up
  - b. Scale Out
  - c. Both
- 30) To has many instances of a system (HW or SW) dispersed geographically, example Distributed Systems, Service Oriented Architectures (SOA) and Microservices.
- a. Scale Up
  - b. Scale Out
  - c. Both
- 31) The Merging of DevOps and Agile approaches improve the quality and decrease the time of project for 37%.
- a. True
  - b. False
- 32) The RAD model consists of four phases: requirements planning, user design, construction, and cutover.
- a. True
  - b. False

- 33) \_\_\_\_\_ The construction phase focuses on program and application development tasks similar to the SDLC. But with user-involvement.
- a. DATA CENTERS CONSTRUCTION
  - b. requirements planning
  - c. user design
  - d. cutover
- 34) \_\_\_\_\_ resembles the final tasks in the SDLC implementation phase, including data conversion, testing, changeover to the new system, and user training.
- a. DATA CENTERS CONSTRUCTION
  - b. requirements planning
  - c. user design
  - d. cutover

## Project Management & Business

- 35) Mission statements usually focus on long-term challenges and goals, the importance of the firm's stakeholders, and a commitment to the firm's role as a corporate citizen.
- a. True
  - b. False

- 36) A critical success factor is one that must be achieved to fulfill the company's mission
- True
  - False
- 37) \_\_\_\_\_ Is the constraint something that must be met as soon as the system is developed or modified, or is the constraint necessary at some future time?
- Present versus future
  - Internal versus external
  - Mandatory versus desirable
  - All of the mentioned
- 38) Is the constraint due to a requirement within the organization, or does some external force, such as government regulation, impose it?
- Present versus future
  - Internal versus external
  - Mandatory versus desirable
  - All of the mentioned
- 39) Is the constraint mandatory? Is it absolutely essential to meet the constraint, or is it merely desirable?
- Present versus future
  - Internal versus external

c. Mandatory versus desirable

d. All of the mentioned

40) Most large projects have a \_\_\_\_\_ . He handles administrative responsibilities for the team and negotiates with users who might have conflicting requirements or want changes that would require additional time or expense.

a. project coordinator

b. team leader

c. analyst

41) \_\_\_\_\_ When tasks must be completed one after another

a. Dependent Tasks

b. MULTIPLE SUCCESSOR TASKS

c. MULTIPLE PREDECESSOR TASKS

42) When several tasks can start at the same time, each is called a concurrent task

a. Dependent Tasks

b. MULTIPLE SUCCESSOR TASKS

c. MULTIPLE PREDECESSOR TASKS

43) task requires two or more prior tasks to be completed before it can start.

a. Dependent Tasks

- b. MULTIPLE SUCCESSOR TASKS
- c. MULTIPLE PREDECESSOR TASKS

## DATA CENTERS REQUIREMENT MODELING

- 44) \_\_\_\_\_ refers to electronic or printed information produced by the system.
- a. Output
  - b. Input
  - c. Process
  - d. Performance
- 45) \_\_\_\_\_ refers to necessary data that enters the system, either manually or in an automated manner.
- a. Output
  - b. Input
  - c. Process
  - d. Performance
- 46) \_\_\_\_\_ refers to the logical rules that are applied to transform the data into meaningful information.
- a. Output
  - b. Input
  - c. Process

- d. Performance
- 47) refers to system characteristics, such as speed, volume, capacity, availability, and reliability.
- a. Output
  - b. Input
  - c. Process
  - d. Performance
- 48) Security refers to hardware, software, and procedural controls that safeguard and protect the system and its data from internal or external threats.
- a. True
  - b. False

## Requirements Modeling In Practical for Data Center

- 49) The Open Group states that TOGAF is intended to:
- a. Ensure everyone speaks the same language
  - b. Avoid lock-in to proprietary solutions by standardizing on open methods for enterprise architecture
  - c. Save time and money, and utilize resources more effectively
  - d. Achieve demonstrable ROI
  - e. All of the mentioned

- 50) The interviewing process consists of seven steps for each interview, 4 steps for preparing, 1 Step while Interview and 2 after.
- True
  - False
- 51) \_\_\_\_\_ encourage spontaneous and unstructured responses. Such questions are useful to understand a larger process or draw out the interviewee's opinions, attitudes, or suggestions.
- Open-ended questions
  - Closed-ended questions
  - Range-of-response questions
- 52) \_\_\_\_\_ limit or restrict the response. Closed-ended questions are used when information that is more specific is needed, or when facts must be verified.
- Open-ended questions
  - Closed-ended questions
  - Range-of-response questions
- 53) \_\_\_\_\_ questions are closed-ended questions that ask the person to evaluate something by providing limited answers to specific responses or on a numeric scale.
- Open-ended questions
  - Closed-ended questions
  - Range-of-response questions

- 54) The purpose of the study was to determine how various changes in the work environment would affect employee productivity. The surprising result was that productivity improved during observation whether the conditions were made better or worse.
- Hawthorne Effect
  - Eyad Effect
- 55) Another popular method of obtaining input is called \_\_\_\_\_, which refers to a small group discussion of a specific problem, opportunity, or issue.
- Observation
  - Brainstorming
  - Both
- 56) In structured brainstorming, each participant speaks when it is his or her turn, or passes. In unstructured brainstorming, anyone can speak at any time. At some point, the results are recorded and made part of the fact-finding documentation process.
- True
  - False
- 57) \_\_\_\_\_ A systematic sample would select every tenth customer for review. To ensure that the sample is balanced geographically
- SYSTEMATIC SAMPLING
  - STRATEFIED SAMPLING
  - RANDOM SAMPLING

- 58) \_\_\_\_\_ could be used to select five customers from each of four postal codes. Another example of stratified sampling is to select a certain percentage of transactions from each postal code, rather than a fixed number.
- a. SYSTEMATIC SAMPLING
  - b. STRATEFIED SAMPLING
  - c. RANDOM SAMPLING
- 59) A \_\_\_\_\_ selects any 20 customers.
- a. SYSTEMATIC SAMPLING
  - b. STRATEFIED SAMPLING
  - c. RANDOM SAMPLING