Chapter 1 Review

Questions:

1. Identify and describe the main components of an information system. Give an example of each component?

2. What is the difference between: Analysis and design software/website versus analysis and design of an Information system?

3. Identify and describe the phases of the Systems Development Life Cycle (SDLC).

4. What is the role of a systems analyst? What is the knowledge and Skill of a System analyst? Why would a systems analyst have to act as a translator? What groups might be involved?

Single Choice Question

1. Which of the following are the main components of an information system?
A. Hardware, Software, Data, People, Processes
B. Input, Output, Storage, Internet, Networks
C. Database, Programming, Reporting, Security, Deployment
D. Server, Website, Cloud, Firewall, Application

2. Which of the following is NOT a component of an information system?
A. Hardware
B. Data
C. Marketing plan
D. People

3. The Systems Development Life Cycle (SDLC) begins with which phase?
A. Analysis
B. Implementation
C. Planning
D. Testing

4. In which SDLC phase are system requirements gathered?
A. Design
B. Analysis
C. Implementation
D. Maintenance

5. Which of the following best describes the primary difference between analyzing a website and analyzing an information system?
A. A website has no users, but an information system does.
B. Website analysis focuses mainly on user interface and experience, while information system analysis covers broader organizational workflows.
C. Information system analysis ignores data security, unlike website analysis.
D. There is no difference; they are the same.

6. During which SDLC phase is a prototype most likely to be built?
A. Planning
B. Analysis
C. Design
D. Testing

7. What is an example of the 'Process' component of an information system?

A. Order fulfillment procedure
B. Database server
C. Customer support staff
D. Accounting software

8. Why is the 'People' component critical in an information system?
A. People ensure software licenses are paid.
B. People execute, manage, and innovate using the system.
C. People physically maintain server hardware.
D. People eliminate the need for any automation.

9. Which of the following best explains the relationship between analysis and design phases in SDLC?
A. Design comes first, then analysis follows.
B. Analysis defines the problem space; design defines the solution space.
C. Analysis and design are interchangeable steps.
D. Both phases are only needed for website development, not system development.

10. If a system analyst identifies conflicting user requirements during the Analysis phase, what is the best action according to SDLC practices?
A. Ignore the conflict to keep the project on schedule.
B. Delay the project until stakeholders agree.
C. Use negotiation and prioritization to resolve conflicts before moving to design.
D. Proceed to design and fix conflicts later in the implementation.

11. Which of the following activities would be most appropriate during the Design phase of SDLC?
A. Analyzing employee job roles
B. Coding and unit testing
C. Creating data models and architecture diagrams
D. Installing production servers

12. What is the primary role of a Systems Analyst?
A. Writing source code for the new system
B. Analyzing business requirements and proposing suitable technology solutions
C. Managing the programming team
D. Designing the user interface (UI)

13. Which skill is the most important for a Systems Analyst?
A. Hardware troubleshooting skills
B. Strong oral and written communication skills
C. Graphic design skills
D. Foreign language skills

14. In which phase of the SDLC does the Systems Analyst mostly participate?
A. Coding
B. Requirements Gathering and Analysis
C. Deployment
D. Testing

15. With which groups does a Systems Analyst need to communicate?
A. Only the technical department
B. Business departments, technical departments, and end-users
C. Only top management
D. Only the human resources department

16. Which document is typically created by a Systems Analyst?
A. Data Flow Diagram (DFD)
B. Payroll sheet
C. HR report
D. Customer list

17. Which tool is used to model business processes?
A. Photoshop
B. BPMN (Business Process Model and Notation)
C. Excel
D. Word

18. What must a Systems Analyst understand most clearly?
A. Only hardware techniques
B. Business processes and IT systems
C. Marketing strategies
D. Customer psychology

19. How do strong oral and written communication skills help a Systems Analyst?
A. Improve programming skills
B. Communicate effectively with stakeholders
C. Design better interfaces
D. Manage human resources

20. Who does a Systems Analyst often work with in a system development project?
A. Software Developers
B. End Users
C. Project Managers
D. All of the above

21. When should a Systems Analyst document system requirements in detail?
A. Before the coding phase
B. After the system is completed
C. During the maintenance phase
D. During system testing

22. Which method supports Systems Analysts in gathering user requirements?
A. Interviews
B. System deployment
C. Software testing
D. Product release

23. How does a business requirement differ from a technical requirement?
A. Business requirements relate to business functions
B. Technical requirements relate to financial objectives
C. Business requirements are only for the IT department
D. Technical requirements are unrelated to software

24. What does a Systems Analyst typically do during the System Design phase of SDLC?
A. Write financial reports
B. Draft system structures and data flows
C. Test the system
D. Deploy hardware

25. What must a Systems Analyst clearly identify when analyzing user requirements?
A. Predict profits
B. Necessary functions and system constraints
C. Marketing methods
D. Number of employees to recruit

26. Which term describes a diagram modeling data structures?
A. Data Flow Diagram (DFD)
B. Entity Relationship Diagram (ERD)
C. Gantt Chart

D. Network Diagram

27. Why does a Systems Analyst need strong problem-solving skills?
A. To replace programmers
B. To quickly find root causes and propose solutions
C. To train employees
D. To calculate costs

28. What should a Systems Analyst do if users cannot accurately describe their requirements?
A. Guess the requirements and continue designing
B. Ignore those requirements
C. Apply interview and observation techniques to better understand
D. Wait for users to modify their own requirements

29. What is the major risk if a Systems Analyst fails to gather enough user requirements?
A. Increased advertising costs
B. The product does not meet real user needs
C. Poor interface design
D. Slow system performance

30. What should a Systems Analyst consider when working with multiple departments?
A. Focus only on the IT department requirements
B. Ensure consistency of requirements among departments
C. Prioritize whichever department is easier to work with
D. Only gather requirements from management

31. Which characteristic best describes a successful Systems Analyst?
A. Better at programming than communicating
B. Always follows initial requirements without review
C. Regularly updates changing requirements and suggests improvements
D. Works independently without user feedback