Multiple Choice Questions

1. A collection of activities and elements organized to accomplish a goal.
   
   A. Information
   B. Data
   C. Program
   D. System

2. In this phase of the systems life cycle, the new information system is installed, and people are trained to use it.
   
   A. Systems implementation
   B. Systems analysis
   C. Systems design
   D. Systems development

3. In this phase of the systems life cycle, new or alternative information systems are designed.
   
   A. Systems maintenance
   B. Systems analysis
   C. Systems design
   D. Systems development

4. This individual studies an organization's systems to determine what actions to take and how to use computer technology to assist them.
   
   A. Network administrator
   B. Cryptographer
   C. Systems analyst
   D. Computer engineer
5. In the preliminary investigation phase of the systems life cycle, which one of the following tasks would not be included?

A. Briefly defining the problem
B. Suggesting alternative solutions
C. Gathering the data
D. Preparing a short report

6. In order to obtain financing to continue to Phase 2: Systems Analysis, the systems analyst does this.

A. Prepares a preliminary investigation report
B. Gathers data
C. Analyzes data
D. Trains users on the new system

7. Gathering and analyzing data is part of this phase.

A. Preliminary investigation
B. Systems analysis
C. Systems design
D. Systems implementation

8. This shows the relationship between input and output documents.

A. Grid chart
B. Checklist
C. Investigation report
D. Top-down analysis method
9. Which of the following is used to identify the components of a complex system and makes each component easier to analyze and deal with?

A. System flow chart  
B. Top-down analysis method  
C. Grid chart  
D. Checklist

10. Which of the following tools presents data or information flow within an information system?

A. Grid chart  
B. Top-down analysis method  
C. Automated design tool  
D. Data flow diagram

11. These tools, also called computer-aided software engineering (CASE) tools, are used in system analysis to evaluate alternative hardware and software solutions.

A. Project management tools  
B. Automated design tools  
C. Spreadsheets  
D. Report generators

12. Which among the following would not be described in the systems analysis report?

A. The current information system  
B. The requirements for a new system  
C. The possible development schedule  
D. The training requirements for users
13. This is the final task in Phase 3: Systems Design.

   A. Select the best design
   B. Design alternative systems
   C. Write a systems design report
   D. Examine hardware requirements

14. This is the first step in the systems design phase.

   A. Examine hardware requirements
   B. Design alternative systems
   C. Select the best system
   D. Analyze the data

15. In this activity, it is determined whether the system can be made secure against unauthorized use.

   A. Analyzing the data
   B. Writing the systems design report
   C. Selecting the best system
   D. Testing the system

16. This document presents the costs versus the benefits and outlines the effect of alternative designs on the organization.

   A. Systems analysis report
   B. Preliminary investigation report
   C. Initialization report
   D. Systems design report
17. During which phase of the systems life cycle are users trained to use the new system?

   A. Preliminary investigation
   B. Systems implementation
   C. Systems development
   D. Systems maintenance

18. Selecting the _______ is the first step in implementing a new system.

   A. hardware requirements
   B. software requirements
   C. conversion type
   D. best alternative

19. This conversion type is not recommended because problems arising in this approach could be catastrophic.

   A. Direct approach
   B. Parallel approach
   C. Phased approach
   D. Pilot approach

20. This conversion approach is preferred when there are many people in an organization performing similar operations.

   A. Direct approach
   B. Parallel approach
   C. Phased approach
   D. Pilot approach
21. This is the final step of the systems implementation phase of the systems life cycle.
   
   A. Develop documentation  
   B. Train users  
   C. Select the conversion type  
   D. Write the implementation report

22. Identify the sixth phase of the systems life cycle.
   
   A. Systems maintenance  
   B. Systems development  
   C. Systems design  
   D. Systems analysis

23. Which of the following phases of the systems life cycle is considered to be an ongoing activity?
   
   A. Systems development  
   B. Systems analysis  
   C. Systems design  
   D. Systems maintenance

24. This is performed to determine whether the new procedures are actually furthering productivity.
   
   A. Testing  
   B. Systems inventory  
   C. Designing alternatives  
   D. Systems audit

25. This is the process of building a model that can be modified before the actual system is installed.
   
   A. Rapid applications development  
   B. Prototyping  
   C. Systems analysis  
   D. Systems maintenance
True / False Questions

26. A systems analyst uses the six-phase systems life cycle to improve and maintain information systems.

27. A survey of user needs is part of the preliminary investigation phase.

28. Data about how the present system works is collected during the preliminary investigation phase in order to determine the requirements of the new system.

29. In Phase 2 of the systems life cycle, the primary concern is completing a new design.

30. Gathering data and information in the systems analysis phase can be achieved through conducting interviews and studying documents.

31. An organization chart shows where the hardware is located within the organization.

32. In the data analysis step, the idea is to learn how information currently flows and to pinpoint why it is not flowing properly.

33. Very few tools are available to assist system analysts and end users in analyzing data.

34. The top-down analysis method makes each component easier to analyze and deal with.

35. If a firm is deciding upon the acceptance of a project with a value of $10,000, and if the client has a good credit history, the firm will most likely use the grid chart in the decision making process.

36. CASE stands for "Computer-Aided Software Engineering."

37. CASE tools are limited to systems analysis.

38. In the design phase of the systems life cycle, alternative systems are analyzed for economic, physical, and operational feasibility.

39. Selecting the best system is the first step of the systems design phase of the systems life cycle.
TOPIC 5 – System Analysis and Design

40. In the systems design phase of the systems life cycle, the systems design report usually concludes by recommending one of the analyzed alternatives.

41. Hardware and software are normally acquired during the implementation phase of the systems life cycle.

42. Application software for new information systems always requires having it custom-designed to meet the needs of the organization.

43. In the testing step of the systems development phase, processed information is evaluated to see whether the results are correct.

44. The organization can switch to the old system if the new system fails in the parallel conversion approach.

45. Periodic evaluation is part of the systems maintenance phase of the systems life cycle.

Fill in the Blank Questions

46. A(n) _______ is a collection of hardware, software, people, procedures, and data.

47. New hardware and software are acquired, developed, and tested in the systems _______ stage of the systems life cycle.

48. Systems analysis and design is a problem-solving procedure for examining and improving a(n) _______.

49. An important aspect of the preliminary investigation phase is to suggest _______.

50. The _______ analysis method identifies the top-level components of a complex system.

51. A(n) _______ shows the relationship between input and output documents.

52. System _______ show the flow of input data to processing and finally to output.
53. ______ show the data or information flow within an information system; the data is traced from its origin through processing, storage, and output.

54. The ______ report describes the current information system, the requirements for a new system, and a possible development schedule.

55. The third phase in the systems life cycle is the systems ______ phase.

56. ______ feasibility is evaluated to determine if the proposed system can actually be made to operate in the organization.

57. Systems designers evaluate each alternative in the systems design phase for ______ by looking at economic, technical, and operational factors.

58. When evaluating alternative systems, systems designs must consider economic feasibility, ______ feasibility, and operational feasibility.

59. The systems design report presents the ______ versus the benefits.

60. ______ of the system happens after the installation of software and hardware.

61. Another name for Phase 5, systems implementation, is ______.

62. The ______ conversion approach to systems implementation is considered the most risky.

63. The ______ approach to systems implementation is used only in cases in which the cost of failure or of interrupted operation is great.

64. In general, the pilot and ______ approaches are the most favored conversion approaches.

65. Most organizations spend more time and money on the systems ______ phase than on any of other phase.
Essay Questions

66. Name and briefly explain the six phases of system analysis and design.

67. How does a systems analyst gather the required data when he/she is defining a problem during the preliminary investigation phase?

68. Name and briefly explain five common analysis tools used during the systems analysis phase.

69. What is the purpose of the systems analysis report during the systems analysis phase?

70. What are the four questions that must be considered when choosing the best system during the systems design phase?

71. Explain the process of evaluating the feasibility of each alternative system.

72. Describe how software can be acquired, if needed, during the systems development phase.

73. Briefly describe the four approaches for conversion to a new system.

74. Discuss the systems audit and periodic evaluation activities.

75. Define prototyping and explain how it could be used by a systems analyst.