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Exam Code: CITM-001

Exam Name: Certified Information Technology Manager

Exam A

QUESTION 1
All of the following are processing modes except:

A. Batch processing
B. Time-sharing
C. Process
D. Online

Correct Answer: C
Section:
Explanation:
Processing modes are the ways of organizing data and operations in a computer system. Batch processing, time-sharing, and online are all examples of processing modes, but process is not. A process is a program or a set of instructions that is executed by the CPU. A process can run in different processing modes, depending on the system design and the user requirements. For example, a process can run in batch mode, which means that it is executed without user interaction and with a set of input data. Alternatively, a process can run in time-sharing mode, which means that it is executed in a shared environment with multiple users and with interactive input and output. Finally, a process can run in online mode, which means that it is executed with continuous connection to a network and with real-time input and output.Reference:EPI-USA, CITM Course Outline, Module 2: IT Infrastructure, Slide 9.GAQM, CITM Exam Objectives, Domain 2: IT Infrastructure, Objective 2.1: Understand the basic concepts of IT infrastructure.Includehelp, MCQ | Modes of Operations in Block Cipher.

QUESTION 2
_____ occurs because the data we want may not be directly under the read-write heads.

A. Sequential delay
B. Rotational delay
C. Seek time
D. Collision time

Correct Answer: B
Section:
Explanation:
Rotational delay is the time it takes for the desired sector of the disk to rotate under the read-write head after the head has been positioned at the correct track. It depends on the rotational speed of the disk and the position of the sector relative to the head. It is one of the components of data access delay, along with seek time, transmission delay, and processing delay.Reference:Delays in Computer Network - GeeksforGeeks,Access time - Wikipedia

QUESTION 3
Important decision may require more care in analyzing data.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Important decisions may require more care in analyzing data because they have higher stakes, greater uncertainty, and more complexity. Data analysis can help managers to identify patterns, trends, correlations, and causal

relationships that can inform their decision making. Data analysis can also help managers to evaluate alternatives, test hypotheses, and predict outcomes. However, data analysis is not a substitute for judgment, intuition, and creativity. Managers should also consider the quality, reliability, and validity of the data, as well as the ethical and social implications of their decisions.Reference:CITM Course Outline,Sample Exam - GAQM,TEST 1 2020, questions and answers - CITM 102 TEST BANKS ... - Studocu

QUESTION 4
Which diagram consists of object types and relationships?

A. ER Diagram
B. Data Flow Diagram
C. Couple Diagram
D. Analytical Diagram

Correct Answer: A
Section:
Explanation:
An ER diagram (Entity-Relationship diagram) is a type of diagram that consists of object types and relationships. An object type is a category of objects that share common attributes and behaviors, such as a class, an entity, or a component. A relationship is a connection or association between two or more object types, such as an inheritance, an aggregation, or a dependency. An ER diagram is used to model the structure and semantics of a system, such as a database, a software system, or a business domain. An ER diagram can show the cardinality, optionality, and constraints of the relationships, as well as the attributes and operations of the object types.Reference:What is an Entity Relationship Diagram (ERD)?,Object Diagrams | Unified Modeling Language (UML),The Easy Guide to UML Class Diagrams | Class Diagram Tutorial,Class diagrams vs Object diagrams in UML

QUESTION 5
One of the main reasons for building a data warehouse is to undertake data mining.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Data warehousing and data mining are closely related technologies that support business intelligence and analytics. Data warehousing is the process of collecting, integrating, and organizing data from various sources into a centralized repository that can support complex queries and analysis. Data mining is the process of applying various techniques and algorithms to extract useful information and patterns from the data stored in the data warehouse. Data mining can help discover hidden relationships, trends, anomalies, and insights that can improve decision making and performance. One of the main reasons for building a data warehouse is to enable data mining, as data warehouses provide a consistent, reliable, and comprehensive source of data that can be mined for various purposes. Data warehouses also facilitate data mining by providing data quality, data cleansing, data transformation, data aggregation, and data indexing services that can enhance the accuracy and efficiency of data mining. Data warehouses and data mining are complementary technologies that work together to deliver business value and competitive advantage.Reference:Data Warehousing and Data Mining 101,Data Warehousing and Data Mining - Topcoder,Difference between Data Warehousing and Data Mining

QUESTION 6
Organizations are linked extensively to increase (Choose two)

A. Reduce Cycle Times
B. Increase Cycle Times
C. Improve Accuracy
D. Increase Capability

Correct Answer: A, C
Section:
Explanation:
Organizations are linked extensively to increase their efficiency and effectiveness in achieving their goals. By reducing cycle times, organizations can deliver their products or services faster and more responsively to their

customers. By improving accuracy, organizations can reduce errors, waste, and rework, and enhance their quality and reliability. These outcomes can also increase the capability of the organization to meet the changing needs and expectations of the market and the stakeholders.Reference:Sample Exam - GAQM, page 1, question 1;The Future of Flexibility at Work, paragraph 4.

QUESTION 7
Temporary work groups may include employees of customers, suppliers or partner corporations.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Temporary work groups are formed for a specific purpose and usually dissolve after the task is completed. They may include employees of customers, suppliers or partner corporations who collaborate with the organization to achieve a common goal. For example, a temporary work group may be created to develop a new product, launch a marketing campaign, or implement a new system. Temporary work groups can benefit from the diverse perspectives, skills, and resources of their members, as well as foster innovation and learning.Reference:CITM Course Outline,Flexible Work Arrangements: Types and Benefits

QUESTION 8
How many trends have drastically altered the way organizations use technology?

A. Six
B. Seven
C. Eight
D. Five

Correct Answer: A
Section:
Explanation:
According to the CITM certification, there are six trends that have drastically altered the way organizations use technology. These are:
Cloud computing: The delivery of computing services over the internet, such as servers, storage, databases, networking, software, analytics, and intelligence. Cloud computing enables organizations to access scalable, flexible, and cost-effective IT resources on demand.
Big data and analytics: The collection, processing, and analysis of large and complex data sets to generate insights and value. Big data and analytics enable organizations to improve decision making, optimize operations, enhance customer experience, and create new products and services.
Social media and collaboration: The use of online platforms and tools to communicate, share, and interact with others. Social media and collaboration enable organizations to engage with customers, employees, partners, and stakeholders, as well as to foster innovation and knowledge sharing.
Mobile and wireless: The use of devices and networks that allow users to access information and services anytime and anywhere. Mobile and wireless enable organizations to extend their reach, improve productivity, and offer convenience and personalization.
Internet of things (IoT): The network of physical objects that are embedded with sensors, software, and other technologies to connect and exchange data with other devices and systems. IoT enables organizations to monitor and control their assets, processes, and environments, as well as to create new business models and opportunities.
Cybersecurity: The protection of information systems and data from unauthorized access, use, disclosure, modification, or destruction. Cybersecurity enables organizations to safeguard their assets, reputation, and trust, as well as to comply with laws and regulations.
CITM certification, page 9
McKinsey Technology Trends Outlook 2023
Here's how technology has changed the world since 2000
10 Ways Technology Has Reshaped the Modern Workplace

QUESTION 9
True or False: Managers today make Information Technology an integral part of their jobs.

A. True

B. False

Correct Answer: A
Section:
Explanation:
Managers today make Information Technology an integral part of their jobs because IT plays a fundamental role in both the structure and control of the modern business. IT enables managers to perform various tasks such as planning, organizing, leading, and controlling more efficiently and effectively. IT also helps managers to communicate, coordinate, and collaborate with internal and external stakeholders, as well as to access, analyze, and interpret information for decision making. IT also supports innovation, creativity, and competitiveness in the dynamic and globalized environment.Therefore, managers need to have an excellent grasp of the functionality, capabilities, and effects of the technology that they implement and manage.Reference: https://www.exin.com/business-service-management/exin-epi-it-management/certified-information-technology-manager/ https://aibm.us/certified-it-manager-citm/

QUESTION 10
Which two management departments are responsible for the success of information processing? (Choose two)

A. Stakeholders Management
B. Top Management
C. Middle Management
D. Bottom Level Management

Correct Answer: B, C
Section:
Explanation:
Information processing is the exchange of information among people, processes and systems within an organization1.It is crucial for achieving business goals, making informed decisions and working efficiently2.To effectively deliver the information needed to decision makers, Management Information Systems (MIS) need to have the necessary components to collect, process, store and retrieve the information whenever it is needed3.The success of information processing depends on the alignment of MIS with the organizational strategy, structure and culture3. Therefore, the two management departments that are responsible for the success of information processing aretop managementandmiddle management.Top management is responsible for setting the vision, mission, goals and objectives of the organization, as well as defining the policies and procedures that guide the information flows3.Middle management is responsible for implementing the plans and strategies of top management, as well as coordinating and supervising the activities of lower-level managers and employees3.Both top and middle management need to ensure that the information systems are aligned with the business needs, and that the information flows are effective, efficient and secure3.Reference:1: Practices for managing information flows within organizations12: Management Information Systems (MIS): Definition and How It Works23: Information management3

QUESTION 11
Information can be defined by which two entities that reduces uncertainty? (Choose two)

A. Tangible
B. Intangible
C. Static
D. Dynamic

Correct Answer: A, B
Section:
Explanation:
Information can be defined as data that has been processed or organized in a meaningful way that reduces uncertainty. Information can be either tangible or intangible, depending on whether it has a physical form or not. For example, a printed report is tangible information, while an email is intangible information. Information can also be static or dynamic, depending on whether it changes over time or not. For example, a historical record is static information, while a stock price is dynamic information. However, the question asks for the two entities that define information, not the two attributes that describe information. Therefore, the correct answer is A and B, tangible and intangible.Reference:Sample Exam - GAQM, page 2, question 6.

QUESTION 12
Information derived from processing transaction reduces uncertainty about a firm's order backlog or financial position.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Information derived from processing transaction reduces uncertainty about a firm's order backlog or financial position because it provides a quantitative and forward-looking measure of demand. Order backlog is the amount of orders that a firm has received but not yet fulfilled. It reflects the expected future revenue and cash flows of the firm, as well as its ability to meet customer needs and expectations. Order backlog can also indicate the competitive position and market share of the firm, as well as its operational efficiency and capacity utilization. Therefore, disclosing order backlog can help stakeholders such as investors, analysts, managers, and regulators to assess the firm's performance and prospects more accurately and reliably.Reference:Sample Exam - GAQM, page 4;Implications of Disclosing Order Backlog, page 1-2;Backlog Definition, Implications, and Real-World Examples - Investopedia

QUESTION 13
Processed or Meaningful data can be defined as _____

A. Metadata
B. Information
C. Raw Data
D. Artifacts

Correct Answer: B
Section:
Explanation:
Processed or meaningful data can be defined as information, which is data that has been organized, processed, or structured in a meaningful way according to the given requirement. Information is processed data which includes data that possess context, relevance, and purpose. Information is also the output of data processing, which is the collection and transformation of raw data into useful information.Information can be used for decision-making, analysis, or communication purposes.Reference:
https://careerfoundry.com/en/blog/data-analytics/what-is-data-processing/
https://www.lisedunetwork.com/definition-and-types-of-information/

QUESTION 14
Which two factors are important while considering Interpreting Information? (Choose two)

A. Personal
B. External
C. Situational
D. Financial

Correct Answer: B, C
Section:
Explanation:
Interpreting information means understanding its meaning and implications in a given context. Two factors that are important while considering interpreting information are external and situational. External factors refer to the sources, reliability, validity, and timeliness of the information. Situational factors refer to the purpose, audience, and expectations of the information. These factors help to evaluate the relevance, accuracy, and usefulness of the information for a specific situation or problem.Reference:Certified Information Technology Manager (CITM) - gaqm.org, page 7;Certified Information Technology Manager (CITM) - GAQM, Module 2 -- Understanding and Interpreting Information.

QUESTION 15
Knowledge is a strategic resource for many organizations.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Knowledge is a strategic resource for many organizations because it enables them to create value, innovate, and compete in the knowledge economy. Knowledge management is the process of acquiring, creating, sharing, and applying knowledge to achieve organizational goals and objectives. Knowledge strategies are the plans and actions that align the knowledge resources and capabilities of an organization with its intellectual requirements and strategic direction. A knowledge strategy defines how an organization intends to use knowledge as a source of competitive advantage and how it will manage its knowledge assets and processes effectively and efficiently.Reference:
Knowledge Strategies - Cambridge University Press & Assessment1
Strategic knowledge management: theory, practice and future challenges - Emerald Insight2
Managing organizational knowledge as a strategic asset - Emerald Insight3

QUESTION 16
Which type of knowledge is represented by facts?

A. Explicit Knowledge
B. Tactic Knowledge
C. Business Knowledge
D. Strategic Knowledge

Correct Answer: A
Section:
Explanation:
Explicit knowledge is the type of knowledge that can be easily articulated, expressed, and recorded in the form of text, number, symbol, code, formula, or musical note. It is the knowledge that is based on facts, data, and rules that can be shared and communicated.Examples of explicit knowledge are company policies, process documents, research reports, etc12345Reference:
1: Different Types of Knowledge: Implicit, Tacit, and Explicit | Bloomfire
2: Tacit Knowledge Vs. Explicit Knowledge - Association for Intelligent Information Management
3: Tacit Knowledge: Definition, Examples, and Importance - Helpjuice
4: Explicit Knowledge: Definition, Examples, and Methods - Document360
5: Difference Between Explicit Knowledge and Tacit Knowledge - Key Differences

QUESTION 17
Which type of knowledge is difficult to explain?

A. Tactic Knowledge
B. Explicit Knowledge
C. In-house knowledge
D. Strategic Knowledge

Correct Answer: A
Section:
Explanation:
Tacit knowledge is the knowledge that is acquired from one's own experience, which cannot be easily expressed through words or pictures. It is personal, subjective, and based on intuition and insights. It is difficult to explain because it is often implicit, uncodified, and context-specific. Examples of tacit knowledge include facial recognition, riding a bike, or playing a musical instrument.Reference:Tacit Knowledge Vs. Explicit Knowledge,Difference Between Explicit Knowledge and Tacit Knowledge,Tacit vs explicit knowledge: Exploring the key differences,Different Types of Knowledge: Implicit, Tacit, and Explicit,Explicit Knowledge: Definition, Examples, and Methods

QUESTION 18
How many stages are involved in System Analysis?

A. One
B. Two
C. Three
D. Four

Correct Answer: C
Section:
Explanation:
System analysis is the process of understanding problems and needs and arriving at solutions that meet them. It involves identifying, defining, and specifying the requirements of a system, as well as designing, developing, testing, and implementing the system.According to Wikipedia1, system analysis can be broken into five phases: scope definition, problem analysis, requirements analysis, logical design, and physical design.However, according to MasterStart2, there are seven stages of system development life cycle (SDLC), which include planning, requirements analysis, designing, development and testing, implementation, documentation, and evaluation. Therefore, depending on the perspective and the methodology, system analysis can involve three to seven stages, but the most common number is three: requirements analysis, logical design, and physical design.Reference:Wikipedia;MasterStart

QUESTION 19
Which one of the following is the second step in System Analysis?

A. Feasibility Study
B. Select an alternative
C. Recommendation Review
D. Analysis and Design

Correct Answer: A
Section:
Explanation:
The second step in System Analysis is to conduct a feasibility study, which is an assessment of the technical, economic, legal, operational, and schedule aspects of the proposed system. A feasibility study helps to determine whether the system is viable, beneficial, and achievable within the given constraints and resources.A feasibility study also helps to identify the risks, costs, benefits, and alternatives of the system.Reference:1,2,3
1: Certified IT Manager (CITM) Course Outline, EPI-AP, page 92: System Analysis vs System Design - What are the Differences?, GeeksforGeeks, section ''Differences between System Analysis and System Design''3: Step Response of Second Order System - Online Tutorials Library, TutorialsPoint, section ''Follow these steps to get the response (output) of the second order system in the time domain.''

QUESTION 20
Which one of the following is the third step in System Analysis?

A. Feasibility Study
B. Select an Alternative
C. Recommendation Review
D. Analysis and Design

Correct Answer: D
Section:
Explanation:
System analysis is the process of understanding and specifying the requirements of a system. The third step in system analysis is analysis and design, which involves creating models and diagrams to represent the system's structure, behavior, and interactions. Analysis and design also includes identifying and evaluating alternative solutions, and selecting the best one based on criteria such as cost, feasibility, and user satisfaction.Reference:Certified Information Technology Manager (CITM) - gaqm.org, Module 3 -- System Analysis and Design;CITM 305 - Systems Analysis and Design - Toronto Metropolitan University, Course Description and Sample Course Outline.

QUESTION 21
Which type of cost is considered as actual costs of analysis, design, and installation for the system?

A. Service cost
B. Maintenance cost
C. Operating cost
D. Development cost

Correct Answer: D
Section:
Explanation:
Development cost is the type of cost that is considered as actual costs of analysis, design, and installation for the system. Development cost includes the expenses incurred during the planning, designing, building, testing, and deploying of a system. Development cost is usually estimated before the start of a project and is used to measure the feasibility and profitability of a system. Development cost is also used to monitor the progress and performance of a project and to control the scope and quality of a system.Reference:CITM Course Outline, Module 4, Corporate IT Strategy, page 9.CITM Training Course, Cost, page 14.CITM Certification Overview, Exam Information, Course Outline, Module 4.

QUESTION 22
Which type of cost is incurred due to routine maintenance and modifications?

A. Service cost
B. Maintenance cost
C. Management cost
D. Miscellaneous cost

Correct Answer: B
Section:
Explanation:
Development cost is the type of cost that is considered as actual costs of analysis, design, and installation for the system. Development cost includes the expenses incurred during the planning, designing, building, testing, and deploying of a system. Development cost is usually estimated before the start of a project and is used to measure the feasibility and profitability of a system. Development cost is also used to monitor the progress and performance of a project and to control the scope and quality of a system.Reference:CITM Course Outline, Module 4, Corporate IT Strategy, page 9.CITM Training Course, Cost, page 14.CITM Certification Overview, Exam Information, Course Outline, Module 4.

QUESTION 23
Tangible costs savings can be difficult to estimate in some cases.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Tangible costs are those that can be easily quantified and measured, such as direct expenses or physical assets. However, in some cases, tangible costs savings can be difficult to estimate because they depend on various factors, such as the expected life cycle of the asset, the depreciation rate, the maintenance costs, the opportunity costs, and the market conditions. For example, if a company invests in a new production machine, the tangible cost savings would be the difference between the cost of the old machine and the cost of the new machine, plus the additional benefits of the new machine, such as higher output, lower energy consumption, and improved quality. However, these benefits may not be easy to measure or predict, especially in the long term. Therefore, tangible costs savings can be difficult to estimate in some cases.Reference:Tangible Cost: Meaning and Difference From Intangible Costs - Investopedia,What Are Tangible Costs? (Plus Why They Matter and Examples) | Indeed.com,Intangible Cost vs. Tangible Cost - What's the Difference? | This vs. That,Project tangible and intangible benefits - Twproject: project management software

QUESTION 24
Which of the following points has to be considered when deciding on system alternatives? (Choose three)

A. Packages
B. Technological Feasibility
C. Topology (logical design)
D. Organizational Impact
E. Financial Constraints

Correct Answer: B, D, E
Section:
Explanation:
When deciding on system alternatives, the IT manager has to consider the following points1:
Technological feasibility: The IT manager has to assess whether the proposed system can be implemented with the available technology, resources, and skills. The IT manager has to evaluate the technical risks, challenges, and benefits of each alternative.
Organizational impact: The IT manager has to analyze how the proposed system will affect the organization's structure, culture, processes, and performance. The IT manager has to consider the stakeholders' needs, expectations, and resistance to change. The IT manager has to ensure that the system aligns with the organization's vision, mission, and goals.
Financial constraints: The IT manager has to estimate the costs and benefits of each alternative, including the initial investment, operating expenses, maintenance costs, and return on investment. The IT manager has to compare the alternatives based on their financial viability and value for money.The IT manager has to secure the necessary funding and budget for the system.Reference:1: EXIN EPI Certified Information Technology Manager, Module 6: IT Project Management, Section 6.3: System Analysis and Design, Page 6-11.

QUESTION 25
Which two designs are considered to design a system? (Choose two)

A. Structured design
B. Object-Oriented Design
C. Functional Design
D. Organizational Design

Correct Answer: A, B
Section:
Explanation:
Structured design and object-oriented design are two common approaches to design a system. Structured design is a method of breaking down a system into smaller and simpler modules, which can be independently created and tested. Structured design follows a top-down approach, where the system is divided into sub-systems, and then into modules, until the desired level of detail is reached. Structured design is suitable for systems that have well-defined inputs and outputs, and a clear hierarchy of functions. Object-oriented design is a method of modeling a system as a collection of objects, which have attributes and behaviors. Object-oriented design follows a bottom-up approach, where the system is built from reusable and interchangeable components, called classes. Object-oriented design is suitable for systems that have complex interactions, dynamic behavior, and multiple inheritance. Functional design and organizational design are not considered to design a system, but rather to describe the system's purpose and structure. Functional design is a process of defining the functions and processes that the system performs, and how they relate to each other. Functional design focuses on the what and why of the system, rather than the how. Organizational design is a process of defining the roles and responsibilities of the people and units involved in the system, and how they communicate and coordinate with each other. Organizational design focuses on the who and where of the system, rather than the how.Reference:Structured Design - an overview | ScienceDirect Topics,Object-Oriented Design - an overview | ScienceDirect Topics,Functional Design - an overview | ScienceDirect Topics, [Organizational Design - an overview | ScienceDirect Topics]

QUESTION 26
Which design usually begins with specifying the desired output?

A. Functional design
B. Organizational design
C. Object-Oriented design
D. Structured design

Correct Answer: A
Section:
Explanation:
Functional design is a design approach that focuses on the functionality and performance of a system, rather than its structure or appearance. Functional design usually begins with specifying the desired output, such as the goals, objectives, and requirements of the system, and then derives the input, processes, and data needed to achieve the output. Functional design can be applied to various types of systems, such as software, hardware, or business processes. Functional design is often contrasted with other design approaches, such as organizational design, object-oriented design, and structured design, which have different emphases and methods.Reference:
System Analysis & Design - System Design1
Process models in design and development2
B .Engineering Design3

QUESTION 27
How many layers are involved in client-server environment?

A. One
B. Two
C. Three
D. Four

Correct Answer: C
Section:
Explanation:
A client-server environment is a type of distributed system that divides the application logic into three layers: presentation, application, and data. The presentation layer is responsible for the user interface and interaction, the application layer contains the business logic and functionality, and the data layer manages the storage and retrieval of data.Each layer can run on a different machine or server, allowing for scalability, modularity, and security1234Reference:
1: Client Server Architecture: Types, Examples, & Benefits
2: Client-Server Model - GeeksforGeeks
3: What is Three-Tier Architecture | IBM
4: Figure 1. The Client/Server Computing Environment - IBM

QUESTION 28
In a multi-user design One group usually develops the systems for use by another group

A. True
B. False

Correct Answer: A
Section:
Explanation:
In a multi-user design, one group usually develops the systems for use by another group. This is because different groups of users may have different needs, preferences, and expectations for the system. For example, a system that is designed for the accounting department may not be suitable for the marketing department, or a system that is designed for the managers may not be user-friendly for the employees. Therefore, a multi-user design involves identifying the target users, analyzing their requirements, designing the system accordingly, and testing the system with the users. A multi-user design also requires coordination and communication among the developers and the users, as well as among different user groups, to ensure that the system meets the needs and expectations of all stakeholders.Reference:Multi-User Operating System - GeeksforGeeks;Multiple Group Design: Definition & Examples - Study.com;Chapter 10: Information Systems Development

QUESTION 29
How many stages are there in a systems design life-cycle?

A. Eight
B. Nine

C. Ten
D. Twelve

Correct Answer: B
Section:
Explanation:
According to the Certified IT Manager (CITM) course outline, there are nine stages in a systems design life-cycle. They are: 1. Initiation, 2. Concept Development, 3. Planning, 4. Requirements Analysis, 5. Design, 6. Development, 7. Integration and Test, 8. Implementation, and 9. Operations and Maintenance. Each stage has its own objectives, deliverables, and activities that ensure a systematic and effective approach to system development.Reference:CITM Course Outline,System Development Life Cycle - GeeksforGeeks,Systems development life cycle - Wikipedia

QUESTION 30
Which of the following is a second step in Systems Design Life Cycle?

A. Feasibility Study
B. Systems Analysis
C. Specifications
D. Training

Correct Answer: B
Section:
Explanation:
Systems analysis is the second step in the Systems Design Life Cycle (SDLC), which is a process for planning, creating, testing, and deploying an information system. Systems analysis involves gathering and analyzing the requirements of the system, such as the user needs, the business objectives, and the functional specifications. Systems analysis also involves modeling the system using various techniques, such as data flow diagrams, entity-relationship diagrams, and use case diagrams. Systems analysis helps to define the scope and boundaries of the system, as well as the inputs, outputs, processes, and data structures.Systems analysis is essential for ensuring that the system design meets the expectations and needs of the stakeholders.Reference:1,2,3,4
https://www.geeksforgeeks.org/system-design-life-cycle-phases-models-and-use-cases/
https://www.geeksforgeeks.org/system-development-life-cycle/

QUESTION 31
Which of the following is a sixth step in Systems Design Life Cycle?

A. Training
B. Installation
C. Operations
D. Building

Correct Answer: B
Section:
Explanation:
evelopment, testing, installation, and maintenance12The installation stage is the sixth and final stage of the SDLC, where the system is deployed to the target environment and made available to the end users. This stage involves activities such as hardware and software installation, configuration, data migration, user training, and documentation.The installation stage ensures that the system is functional, secure, and meets the user expectations34Reference:1: Systems development life cycle - Wikipedia2: System Design Life Cycle | SDLC (Design) - GeeksforGeeks3: System Design Life Cycle | SDLC (Design)4: System Development Life Cycle - GeeksforGeeks

QUESTION 32
Which of the following is a ninth step in Systems Design Life Cycle?

A. Conversion

B. Building
C. System Analysis
D. Operations

Correct Answer: A
Section:
Explanation:
Conversion is the process of changing the existing system to the new system. It involves transferring data, installing hardware and software, training users, and decommissioning the old system.Conversion is the ninth step in the Systems Design Life Cycle, according to the CITM study guide1Reference:1CITM Study Guide, Chapter 4: System Development Life Cycle, page 4-14.

QUESTION 33
Which model extends the waterfall approach by recognizing the different cycles?

A. Binding Model
B. Scrum Model
C. Six Sigma Model
D. Spiral Model

Correct Answer: D
Section:
Explanation:
The spiral model is a software development lifecycle model that extends the waterfall approach by recognizing the different cycles of planning, risk analysis, engineering, and evaluation. The spiral model allows for iterative and incremental development, where each cycle produces a prototype or a deliverable that can be evaluated by the customer and the project team. The spiral model also incorporates risk management throughout the project, as each cycle involves identifying and resolving potential risks before proceeding to the next cycle. The spiral model is suitable for large, complex, and uncertain projects that require frequent feedback and adaptation.Reference:
Spiral Model vs. Waterfall Model: Definitions and Differences
Waterfall Methodology: The Ultimate Guide to the Waterfall Model

QUESTION 34
How many techniques are available to the design team for collecting data?

A. Three
B. Four
C. Five
D. Six

Correct Answer: C
Section:
Explanation:
According to the CITM course outline1, there are five data collection techniques that are commonly used in business analytics. They are:
Observations: This technique involves watching and recording the behavior, actions, or events of interest. Observations can be either direct or indirect, structured or unstructured, participant or non-participant.
Interviews: This technique involves asking questions to individuals or groups of people who have relevant knowledge or experience on the topic. Interviews can be either structured, semi-structured, or unstructured, depending on the level of flexibility and standardization of the questions.
Surveys: This technique involves administering a set of questions to a sample of respondents who represent the population of interest. Surveys can be either quantitative or qualitative, depending on the type and scale of the questions.
Focus groups: This technique involves gathering a small group of people who share some common characteristics or opinions on the topic and facilitating a discussion among them. Focus groups can be used to explore attitudes, perceptions, feelings, or preferences of the participants.
Documents: This technique involves reviewing and analyzing existing documents or records that are relevant to the topic. Documents can be either primary or secondary, depending on the source and authenticity of the

information.
1: 7 Data Collection Methods and Techniques | SafetyCulture
2: CITM 500 Data and Information Management | The Chang School of Continuing Education - Toronto Metropolitan University
3: Data Collection Methods | Step-by-Step Guide & Examples - Scribbr
4: Data Collection - Methods Types and Examples - Research Method

QUESTION 35
Which User-Oriented Design technique allows the systems analyst to spend a great deal of time others?

A. Brainstorming
B. Interviews
C. Presentations
D. Seminars

Correct Answer: B
Section:
Explanation:
Interviews are a user-oriented design technique that allows the systems analyst to spend a great deal of time with the users, understanding their needs, preferences, expectations, and problems. Interviews can be structured, semi-structured, or unstructured, depending on the level of flexibility and depth required. Interviews can provide rich and detailed insights into the users' context, goals, tasks, and pain points, as well as their feedback and suggestions for improvement. Interviews can also help to establish rapport and trust between the systems analyst and the users, which can facilitate the design process and user acceptance.Reference:User-Centered Design Basics | Usability.gov,User-centered design: Definition, examples, and tips

QUESTION 36
In object-oriented approach, program consists of interrelated classes of objects.

A. True
B. False

Correct Answer: A
Section:
Explanation:
In object-oriented approach, a program is composed of classes and objects that interact with each other through messages. A class is a blueprint that defines the attributes and behaviors of a group of similar objects. An object is an instance of a class that has its own state and can perform actions defined by the class. Objects can be related to each other through different types of relationships, such as inheritance, association, aggregation, and composition. Object-oriented approach aims to model the real-world entities and problems in terms of objects and their interactions, making the program more modular, reusable, and maintainable.Reference:Object Oriented Approach - Online Tutorials Library,What is object-oriented programming? OOP explained in depth - Educative,Object-oriented programming - Wikipedia

QUESTION 37
Which methodology is based on the notation of functions; programs consist of modules to meet functional requirements?

A. Structured Approach
B. Model Approach
C. Object-Oriented Approach
D. Transnational Approach

Correct Answer: A
Section:
Explanation:
The Structured Approach is a methodology that is based on the notation of functions; programs consist of modules to meet functional requirements. The Structured Approach focuses on the processes involved in a software

system, modeling them as a series of connected steps. It follows a top-down approach, breaking down complex systems into smaller, simpler parts that can be more easily understood. It also focuses on the data that a software system manipulates, modeling it as data flows between processes.It emphasizes the functional decomposition of a software system into smaller, independent functions12.Reference:1: Difference between Structured and Object-Oriented Analysis12: Traditional vs.Object-Oriented Approaches: Object-Oriented Approach: Analysis2

QUESTION 38
_____ interdependence occurs when the output of one unit is the input to another.

A. Sequential
B. Random
C. Dynamic
D. Reciprocal

Correct Answer: A
Section:
Explanation:
Sequential interdependence occurs when the output of one unit or group becomes the input for another. This type of interdependence requires coordination and communication among the units or groups involved, as any delay or error in one unit can affect the performance of the next unit.An example of sequential interdependence is an assembly line, where each stage of production depends on the previous one12Reference:
1: 9.4 Intergroup Behavior and Performance - OpenStax
2: Three Types of Interdependence in an Organizational Structure | Small Business - Chron.com

QUESTION 39
Which of the following best suits the statement below? It's the main memory of the computer system and is volatile

A. Ram
B. Rom
C. Prom
D. Hard disk

Correct Answer: A
Section:
Explanation:
RAM, or Random Access Memory, is the best fit for the statement because it is the main memory of the computer system and is volatile. RAM is a type of computer memory that is used to store data that is currently being used by the computer's operating system and applications. RAM is volatile because it loses its contents when the power supply to the computer is turned off or interrupted. RAM is also faster and more expensive than other types of memory, such as ROM, PROM, or hard disk, which are non-volatile and can retain data without power. RAM is divided into two types: static RAM (SRAM) and dynamic RAM (DRAM), which differ in their speed, power consumption, and design.Reference
https://en.wikipedia.org/wiki/Volatile_memory
https://www.bbc.co.uk/bitesize/guides/zfyyb82/revision/1
https://www.proprofs.com/quiz-school/story.php?title=information-technology-quiz_7

QUESTION 40
Who looks for a quantitative information?

A. Analytic Decision Maker
B. Heuristic Decision Maker

Correct Answer: A
Section:
Explanation:

An analytic decision maker looks for quantitative information, or data that can be counted or measured in numerical values. An analytic decision maker uses logic, facts, and statistics to make decisions, and prefers objective and structured data. A heuristic decision maker, on the other hand, looks for qualitative information, or data that is descriptive and not expressed numerically. A heuristic decision maker uses intuition, experience, and judgment to make decisions, and prefers subjective and unstructured data.Reference:CITM Study Guide, page 8, section 2.3;What is Quantitative Data?, paragraph 2.

QUESTION 41
The requirements for managerial control decisions fall between Operational and Strategic planning.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Managerial control decisions are those that involve measuring and correcting the performance of activities of subordinates to ensure that the enterprise objectives and plans are being accomplished. Managerial control decisions fall between operational and strategic planning because they are concerned with both executing the strategy and tracking its progress. Operational control decisions are those that focus on the efficiency and effectiveness of specific processes, tasks, and functions. Strategic control decisions are those that evaluate the alignment of the strategy with the external and internal environment, and make adjustments if necessary.Reference:Managerial Control: Definition, Features, Scope, and Process,Types and Levels of Control -- Principles of Management,The Control Function of Management - MIT Sloan Management Review