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CIT212: SYSTEM ANALYSIS AND DESIGN

……..may be defined as "a study of the operations of a set of connected elements and of the inter-connections between these elements"
Systems study

…….is a management technique which helps us in designing a new system or improving an existing system
systems analysis

The two classification of input are
Maintainance and signal

Documentation is prepared
at every stage

System implementation phase entails
System check outs

……. is an important factor of management information system.
system

…….. level supply information to strategic tier for the use of top managemen t.
Tactical

In a DFD external entities are represented by a
Rectangle

. …… can be defined as data that has been processed into a form that is meaningful to the recipient and is of real or perceive value in current or prospective decisions.
Information

Use the new system as the same time as the old system to compare the results. This is known as
Parallel Operation

After the design phase the document prepared is known as……
design specification

A data flow can
May emanate and terminate in an external entity

…… can be defined as most recent and perhaps the most comprehensive technique for
System Analysis

The characteristics of well-designed system are
a) Practical b) Effective c) Secure d) Reliable e) Flexible f) Econo mical
a, b, c, d, e and f

…….. gives defining the flow of the data through and organization or a company or serie s of tasks that may or may not represent computerized processing.
System flowchart

In the Analysis phase,thedevelopmentof the _____ occurs, which is a clear statement of t he goals and objectives of the project.
program specification

Enhancements, upgrades, and bug fixes are done during the _____ step in the SDLC.
Maintenance and Evaluation

Advantages of system flowcharts …….
All A, B, C

…… is a tabular method for describing the logic of the decisions to be taken.
Decision tables

A decision table facilitates conditions to be related to
Actions

A _____ is an outline of a process that keeps develop successful information systems
System Development Life Cycle

An appraisal, of a system's performance after it has been installed, is called system
review

An example of a hierarchical data structure is
Tree

Which of the following is not a characteristic of good test data

users do not participate at this preliminary stage

The rule(s) to follow in constructing decision tables is (are):
the logic of the table is independent of the sequence in which conditions rules are written, b ut the
action takes place in the order is which the events occur.

……. is a group of interested components working together towards a common goal by accepting inputs and producing outputs in an organized transformation process.
System

External Entities may be a
Source of input data or destination of results

The major goal of requirement determination phase of information system
determine what information is needed by an organization

_____ are used to store data
Answer: Files

Data are stored either in terms of _____ facts or in large volumes
Answer: Isolated

_____ convert input into outputs
Answer: Processes

____ systems are tangible entities that may be static or dynamic in operation
Answer: Physical

____ systems are conceptual or non-physical entities
Answer: Abstract

____ system continually interacts with its environments
Answer: Open

An information system belongs to the class of _____ system
Answer: Open

A ____ system is isolated from environmental influences
Answer: Closed

A warehouse and its contents is an example of a _____ system
Answer: Probabilistic

An information system is the basis for interaction between the ____ and the analyst

Answer: User

Feasible and desirable projects should be put into a _____.
Answer: Schedule

Preliminary investigations activity has _____ parts
Answer: Three

The _____ of an information system produces the details that clearly describe how a system will meet the requirements identified during systems analysis
Answer: Design

_____ is the process of having systems personnel check out and put new equipment into use, train users, install the new application and construct any files of data needed to use it.
Answer: Implementation

Running of both old and new system at the same time in order to compare the results is called _____ conversion
Answer: Parallel

The practice of stopping the use of the old system one day and starting to use the new one the next day is called _____ conversion
Answer: Direct

_____ of the system is performed to identify its strengths and weaknesses
Answer: Evaluation

There are mainly _____ primary sources of project requests
Answer: Four

In the use of committee for Project Review and Selection, there are mainly _____ committees formats that are commonly used.
Answer: Three

In the _____ committee approach, decisions are made on the basis of the cost of the project, its benefit to the organization and the feasibility of accomplishing the development within the limits of information systems technology.
Answer: Steering

Designing and implementing systems to suit organizational needs are the functions of the systems _____
Answer: Analyst

The importance of _____ is to continue to bring the new system to standards
Answer: Maintenance

Information systems add capability to business activities in ____ways
Answer: Three

The purpose of the preliminary investigation is to evaluate project_____.
Answer: Requests

A system suffers from the problem of ____when procedures work sometimes but not all of the time
Answer: Reliability

_____ problems result when the environment changes and these changes are not incorporated into the software
Answer: Validity

The problem of _____is similar to the problems of reliability and validity
Answer: Accuracy

A system suffers from problem of _____ when processing is error-proned
Answer: Accuracy

A system suffers from the problem of ____ if information is available but cannot be retrieved when and where it is needed
Answer: Timeliness

The problem of _____occurs when system component is not large enough
Answer: Capacity

The problem of throughput may be viewed as the reverse of the problem of ____
Answer: Capacity

If system capacity is high and production low, a problem of _____ occurs.
Answer: Throughput

_____ evaluation deals with the assessment of the manner in which the system functions
Answer: Operational

In conducting feasibility study, the analyst considers ___ distinct, but inter-related types of feasibility
Answer: Seven

_____ steps are involved in the feasibility analysis
Answer: Eight

A _____ DFD does not show any detail but is an overview drawing of the system

Answer: Context

The decision table is a chart with ____ sections listing all the logical conditions and actions
Answer: Four

In a decision table, the condition ___ displays all the necessary tests or conditions
Answer: Stub

Condition ____ is a list of all the yes/no permutations in a decision table
Answer: Entry

Thus Action ____ indicates via dot or X whether something should happen in a decision table
Answer: Entry

A decision table with four conditions would have ____ different sets of y's and n's
Answer: 16

A dialogue ____ maps the static and dynamic messages that take place between the computer and the user
Answer: Tree

A decision _____ helps to show the paths that are possible in a design following an action or decision by the user:
Answer: Tree

Structured design is a data ____ based methodology
Answer: Flow

The result of the system design process is a document known as "system____"
Answer: Specifications

The _____ design indicates necessary procedures which will ensure correctness of processing, accuracy of data, timely output etc
Answer: Control

_____ design step involves specifications of how processing will be performed
Answer: Procedure

____ analysis is also considered a pre-requisite condition for cost/benefit analysis
Answer: Data

The functionally passive dictionary performs ____ only
Answer: Documentation

Systems analysts are often referred to as _____.

Answer: Planners

_____defines each term, (data elements) encountered during the analysis and design of a new system.
Answer: Data dictionary

Which of the following symbols is NOT used in data dictionary?
Answer: &

Which of these is among the symbols used in data dictionary?
Answer: [ ]

Which of the following is an 'Optional entry' symbol used in data dictionary?
Answer: ( )

Data Dictionary is governed by some important rules. Which of the following is appropriate?
Answer: All of the options

Data dictionary is of _____ categories.
Answer: two

In which of the following files are there no location assignments?
Answer: None of the options

Absolute responsibility for all types of problems is a disadvantage of _____ method of computer acquisition?
Answer: Outright purchase

Library files generally contains the following except _____.
Answer: none of the options

_____ files are permanent files containing reference data used in processing transaction, updating master file or producing output
Answer: table

_____ refers to the process of deriving a storage address from a record key
Answer: Hashing

Which of the following designs are components of system design process?
Answer: All of the options

_____ design is a working system that is developed to test ideas and assumptions about the new system
Answer: Prototype

Which of the following may not contribute in maximum cases to software crisis from programmer's point of view?
Answer: Security problem for protected data in software

_____ form request the user to do something
Answer: action

Which of the following is a Characteristic of action form?
Answer: All of the options

_____ form serves as control on certain details.
Answer: Memory

Which of the following is part of the main objectives of database?
Answer: All of the options

The system specification for those who use presentation graphics includes _____.
Answer: All of the options

_____ file is a copy of computer-held data at a particular point of time.
Answer: Dump

Which of the following is the second step in feasibility analysis?
Answer: Preparing system flowcharts

The final step involve in feasibility analysis is_____.
Answer: Prepare and report final project directives to the management

Which of the following is a type of Data dictionary?
Answer: Stand-alone

Which of the following is a basic element of system analysis?
Answer: All of the options

Which of the following is not an essential element of inputs into a system?
Answer: None of the options

Which of the following is an example of computer-based information system?
Answer: All of the options

Which of the following is a part of the preliminary investigations activity?
Answer: all of the options

Which of the following system stakeholders is responsible for selecting file structures and storage devices?

Answer: System designers

Evaluation can occur along which of the following dimensions?
Answer: All of the options

Which of the following committee approach is generally favoured because systems projects are considered as business investments?
Answer: steering

Which of the following committee method can be used when major equipment decisions are required or when long-term development commitments are needed to undertake a project?
Answer: information system

_____ is the process of gathering and interpreting facts, diagnosing problems and using the information to recommend improvement to the system
Answer: System analysis

Which of the following is not a problem that arise out of the user's end?
Answer: Problems that arise during actual run time in the organization

Systems projects are initiated for which of the following reasons?
Answer: All of the options

Which of the following is a way that Information systems add capability to business activities?
Answer: All of the options

The data that the analysts collect during the preliminary investigation are gathered through ____ primary methods
Answer: three

Which of the following is a primary method for gathering data during preliminary investigation?
Answer: all of the options

Which of the following questions is answered by technical feasibility?
Answer: All of the options

Which of the following questions is answered by Economic Feasibility?
Answer: All of the options

A system suffers from problem of _____when processing is error-prone.
Answer: accuracy

The problem of _____ relates more to the transmission of information than processing and storage.
Answer: timeliness

____ feasibility is the most frequently used techniques for evaluating the effectiveness of a proposed system?
Answer: Economic

Preparing system flowcharts is the _____ step of feasibility analysis
Answer: second

Which of the following attributes can a Systems analyst not have?
Answer: None of the options

Under which of the following conditions are prototypes considered to be most useful?
Answer: All of the options

There are ____ aspects of procedure design
Answer: two

Which of the following is the last step of the feasibility analysis?
Answer: None of the options

Questions in a questionnaire can follow _____ formats
Answer: four

_____in DFD stand for a process that converts data into information
Answer: Circles

____ rules govern construction of data flow diagrams
Answer: Seven

There are ……basic elements in systems analysis
Four

Once we know the output, we can easily determine what the ……should be.
Inputs

An ……continually interacts with its environments
open system

The major information systems are:
Formal information systems
Informal information systems

Computer-based information systems

The most fundamental computer-based system in an organization pertains to the processing of……..
business transactions

The systems development life cycle consists of the following activities:
Preliminary investigation
Determination of system requirements
Design of system
Development of software
Systems testing
Implementation, evaluation and maintenance

…….of the system is performed to identify its strengths and weaknesses
Evaluation

…….is necessary to eliminate errors in the working system during its working life and to tune the system to any variations in its working environment
Maintenance

A systems analyst is a person who conducts a study, identifies activities and objectives and determines a ……..to achieve the objectives
Procedure

Systems analysts are often referred to as ……..
Planners

Senior executives like….. vice-presidents usually have more information about the organization as compared to department managers.
Presidents

It is not necessary that all projects that are submitted for evaluation and review are……
Acceptable

……is concerned with specifying equipment and software that will successfully satisfy the user requirement
Technical Feasibility

The primary tool used in structured design is a
Structured chart

In a …….. One module of the new information system is activates at a time.
Phased conversation

In Prototyping
4GLs are used

The step-by-step instruction that solve a problem are called…….
An algorithm

..... system is often preferred in the case of the new system which involves new techniques or some drastic changes in organization performance
pilot

Training of operators and users can be organized in ..... different ways
several

Which of the following is not an aspect of implementation?
None of the above

..... testing is where the analyst tests the individual programs making up a system
unit

Application form is an example of ..... class of form
Action

..... refer to records that can be visualised as rows in a table
tuples

Cover letter is one of the elements of a ..... package
documentation

The approach used in top-down analysis and design is
to identify a top level function an d then create a hierarchy of lower-level modules and components.

The ..... capabilities relate to the ease of referring to a specific record in file without any alteration
inquiry

Which of the following is not a factor in the failure of the systems developments project?
Size of the company

The database model that organizes data in terms of two-dimensional tables is ..... model
relational
A Ring, refers to a record chain, the last of which refers to the first record, in the chain is called

a/an
Pointer

The primary tool used in structured design is a:
Structured chart

A problem's …….will answer the question, 'what information will the computer need to know in **order** to either print display the output times?'
Input

In DFD, the symbol that represents a source or destination of system data is .....
square

What conversion method is used when it is not possible to install a new system throughout an organization?
phase-in

The ..... ratio of a file is an important feature in file design
activity

System testing consists of .....
all of the above

What type of testing is conducted in the presence of the user, audit representatives or the entire staff?
acceptance

..... conversion provides experience and live test before implementation
pilot

..... conversion allows training and installation without unnecessary use of resources
phase-in

The problem of ..... may be viewed as the reverse of the problem of capacity
throughput

..... refers to the process of using software in a live environment to find errors
Verification

System ..... improves overall operation in addition to management and audit control.
Documentation

In the use of Magnetic tapes, ... generations are commonly created and retained before re-using the oldest version.

Three

Another name for ..... graphics is analytical graphics
decision support

..... testing is designed to uncover weaknesses that were not found in earlier tests
system

The ..... book is a collection of operator instructions for each program at an installation
run

The most secure method of converting from an old to new system is ..... conversion
parallel

Which of the following is a basic element used in developing structured flowcharts?
any of the above

Which of the following is a quality of good documentation?
all of the above

The ..... of an information system produces the details that clearly describe how a system will meet the requirements identified during systems analysis
design

Decision Support system deals with supporting ..... decision situations
unstructured

..... decision is one with no clear procedures for making the decision
unstructured

..... Entry is a type of decision table listing a Y or N response for each condition.
Limited

..... is the procedure in which each component functions with other components of the system
interaction

..... system represents an organised way of achieving the pre-determined objective of an organization
business

..... implies sturcture and order
Organization

Systems ..... is the process of planning a new system or replace or complement an existing system

design

Relinquishing control of vital business data is a disadvantage of using ..... centre services.
data

Data is recorded on the magnetic tape in terms of .....
blocks

Another name for ..... file is Direct file
Random

In a ..... file organization a records can be added only at the end of the file
sequential

The term ..... refers to any business event that affects the organization and about which data is captured
transaction

The highest level in the hierarchy of file design is the .....
database

The symbol used for optional entry in data dictionary is .....
( )

The time interval between entering an inquiry and getting the reply is called ..... time
response

..... is a type of Hierarchy plus Input Process Output (HIPO)
VTOC

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unit

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acceptance

When identifying data dictionaries by functions, there are ..... types
3

..... bureaux provide computer facilities to their clients on a fee basis
service

The ..... dictionary is related to one database management system
integrated

..... diagrams are also known as logical construction of programs/systems
Warnier/Orr

The ..... files are generally maintained on magnetic disk or on a mass storage system
indexed

A ..... error is a program statement that violates one or more rules of the language in which it is written
syntax

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