

SYSTEMS ANALYSIS

SECTION I.

01. - It is used to represent physical components (concrete tangible structure of system)
 - It is used to represent physical component.

02. Documentation or document guides the user of the system.
 - Training helps user to get skills about how the system.

03.	OPEN-ENDED QUESTION	CLOSED-ENDED QUESTIONS
	* Provides detail information or explanation	* Responder makes a choice among variety of answers
	* Responder provides variety answers	* Responder provides quick and direct answers
	* Example: What are the impact of wireless technology?	* example: How old are you?

04.	TRUE STATEMENT	FALSE STATEMENT
	A collection of components that work together to realize some objectives forms a system	- System life cycle is not an organization process for developing and maintaining systems.
	- In the system analysis and design terminology, the system development life cycle means software development life cycle.	- Coding is a step of SDLC that follows implementation phase
		- System analysis and design are the same phase of system development life cycle.

05. Information System: is a set of tangible and intangible elements that interact to support and improve day to day operations in a business.











- It is an arrangement of people, data, process, communication and information technology that interact to support and all activities in an organization.
- It is a set of resources that correspond to a business within an organization.

06. Functional requirement	No functional requirement
<ul style="list-style-type: none"> - It is a necessary operational data/process and tasks to achieve objectives - A set of required activities included in a system - Missing of necessary lead to malfunctionability of system 	<ul style="list-style-type: none"> - Additional support tool - Set of additional requirement/features depending on a user specification

07. - Analyse system problem and suggest the best solution
 - Intermediate between owner and builder of the system

08. - Error detection and Error Correction
 - Verification of system meets user requirements

09. - Preliminary study / System study
 - Requirement analysis / System analysis
 - Feasibility study.

10. Data Flow Diagram (DFD)	Flowchart
<ul style="list-style-type: none"> - represents the movement of data within the system - Symbols: <ul style="list-style-type: none"> -  /  External entity -  Data store -  Data flow -  Process - describes process functions 	<ul style="list-style-type: none"> - represents step by step algorithm - symbol: <ul style="list-style-type: none"> -  Input/output -  Computing/process -  Decision making -  Connector -  Allow/flow control - describes process

11. End-user: is a person who will use implemented software.

12. - SOFTWARE ERROR: is a mistake related to software coding that prevent software to return expected result

- OR
- * Syntax error
 - * Runtime error
 - * Logical error

- SOFTWARE FAULT: is a software that works abnormal and produces unexpected result or unintended result according to the user.

- SOFTWARE FAILURE: is a software crash.

13. He is a person who is responsible for analysing, researching and coordinating / controlling software project development.

Behavior and qualities of system analyst:

- Interpersonal skills
- Managerial skills
- Analytical skills
- Technical skills
- Team work spirit

14. * Functional requirements
* No functional requirements

SECTION II.

15. - Conceptual: illustrates user requirements and tools to develop the new system.

- Logical: describes the processes to design the new system

- Physical: Provide the structure of the new system

- Preliminary design: identifies the main features of a new system according to the user requirements

- Detailed design: identifies internal and external components based on structure of the new system.

* Tools use of system design:

- DFD
- Activity diagram
- Data dictionary
- Flow chart
- ERD
- Decision table.

16.(a) MASTER FILE: is a file which contains permanently original data of an organization.

(b) TRANSACTION FILE: is a file that contains operative records, events/activities.

(c) LOOKUP FILE: is a table which stores data or disk file

- It is a file which contains templates, samples, structure that guides how activity is done

- It is a file that contains data that can be readable but not modified, file that allows to research.

(d) AUDIT FILE: is a file which contains result from checking and controlling organization's activities.

17.(a) UNIT TESTING: Deals with checking each program and detects errors and debugs/corrects those errors in a system.

(b) INTEGRATION: deals with testing the grouped program modules subroutines and identifies error to correct.

(c) BLACK BOX TESTING: is a method of testing of an application software without peering its internal structure.
- It is a virtual testing method.

(d) SYSTEM TESTING: concerns with testing whole system using actual data of user.

18. - Project definition

- Problem statement

- Project interest

- Project objectives

- Project limitations/scope

- Project constraints

- Project organisation

- Project requirement

- System study

- Requirement analysis

- Feasibility study

- System analysis

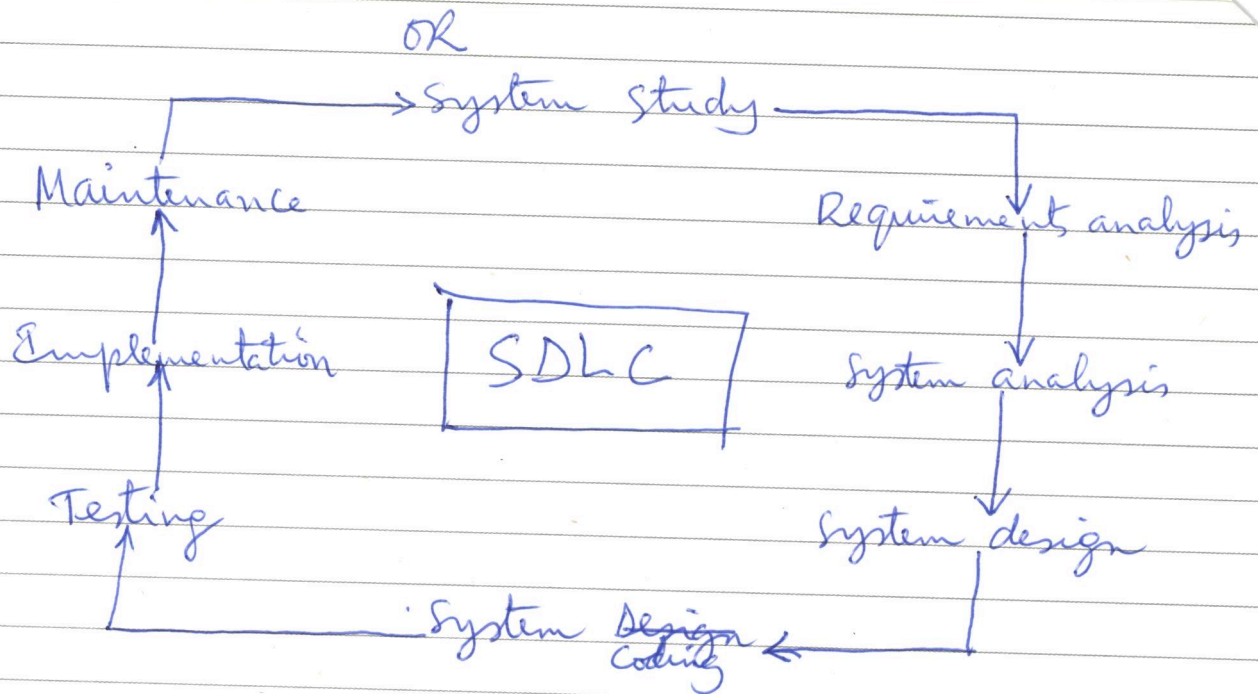
- System design

- Coding

- Testing

- Implementation

- Maintenance



- b) - Task priority order
 - Time management
 - Task distribution
 - Easy to control tasks
 - Failure of one task does not affect others.

19. - Brain Teaser question: require interviewee to explain in detail the response.
 - Behavior question: Questions that require to present emotions and characteristics of interviewee.
 - Classic questions: Questions that require interviewee to describe limit her/himself.
 - Technical question: require interviewee to represent skills and knowledge gained.
 - Closed questions: require interviewee to provide quick and short answers.
 - Open question: require interviewee to provide detail explained explanations.
 - Probing questions: interrupt interviewee and provide him/her to give more detail and clarification.

SECTION III.

20. 1) REFERENCE documents: are books written from earlier researchers.
 2) PROCEDURE manuals: are summary of tasks, books written from guideline. The user of the system (catalogue)
 3) Tutorials: Demos, videos, syllabus that guide the user practice.

210 software design

- a) - water fall model
- Prototyping model
- Incremental model
- Agile model
- Spiral model

- b) - Training
- Documentation
- It helps in system maintenance (Post implementation)

22. (a) It is a stage where income of the system covered all expenses.

- Break-even point is a technique used to measure the software project work.

(#) Break-even-point is a common approach to measuring a project's worth. The break-even point (also called the payback method) is defined as the number of years it takes a firm to recover its original investment in the project from net cash flows.

The break-even point is intuitively easy to understand and does give an indication of a project's liquidity, or the speed at which the project generates cash returns.

Also, projects that produce higher returns early in the project's life are thought to be less risky, since we can long-term anticipate near-term events with more accuracy than we can long-term events.

The break-even point ignores cash flows that occur after the break-even point has been reached, therefore, it is biased against longer-term projects.

(b) The organisational feasibility looks into how well the system ultimately will be accepted by its users and incorporated into the ongoing operations of the organisation.

There are many organizational factors that can have an impact on the project, and seasoned developers know that organizational feasibility analysis attempts to answer the question "If we built it, will they come?" One way to assess the organisational feasibility of the project is to understand how well the goals of the project align with business objectives.

Strategic alignment is the fit between the project and business strategy. The greater the alignment, the less risky the project will be from an organizational feasibility perspective.