Name - Md. Rakib Hasan.
ID - 2216080021.
Course - System Analysis And Design.
Code - CSI 311.

Answer to the Question No - 1

① Answer: System Design: System Design is the Core Concept behind the Design of any distributed System. System Design is defined as a process Of creating an Architecture for different Components, interfaces, and Modules of the system And providing Corresponding data helpful in implementing Such elements in Systems.

Inputs to System Design: System design takes the following inputs-

- Statement of work.
- Requirement determination plan.
- Current situation Analysis.
- proposed System Requirements including

A Conceptual data module, Modified DFDs and metadata (Data about Data.)

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Output for System Design:

System design gives the following Output —

→ Infrastructure And Organizational change for the proposed System.

→ A data schema, often a realation schema.

→ Metadata to define the table / File and columns / data item

→ A function hierachy diagram or web page map that graphically describes the program structer.

→ Actual or pseudocode for each module in the program.

→ A prototype for the proposed system.

Answere to the Question No- 2

Ans: Structured Analysis is the term that is used when a set of particular steps are taken to Design the program or System that a Customer is requesting. There are tools that make effective is of structured analysis because it Benefits from identifying problem much earlier on in the creation of A program which Saves Money and time in the long run because that problem can be amended as Soon as they are identified Instead of after. These problems are found earlier on because the information thatss gathered and the steps that are followed Allow for much more detailed design than if the Analysis was not structured properly which means that there is much more Control of what happens during the Analysis properly which Mean And design stage-

There are many important steps for Structured Analysis:

⇒ Investigation of the Current System and identifying all the Current problem that it holds

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→ Modelling the Newer system based Arcend the issues found when investigating the current System to so that they are Fixt.

→ Modelling the newer physical enviroment of the systems.

→ Investigating and Concluding whether or not there my Alternatives that are possible.

→ Choosing the best Approach for the new System.

→ producing the graphical aspects of the new system.

Advantages of Structured Analysis And Structure Design (SA/SD)

① Clarity And Simplicity: The SA/SD method emphasizes Breaking down Complex system into smaller, more Mangeable Components whic makes the system easir to understand and manage.

② Better comunication: The SA/SD ~~the~~ method provides a Common language and farmwork for communicationiating the design of a system, which can improve Communication between stakeholders and help ensure that the system meets their Needs and Expectiontation.

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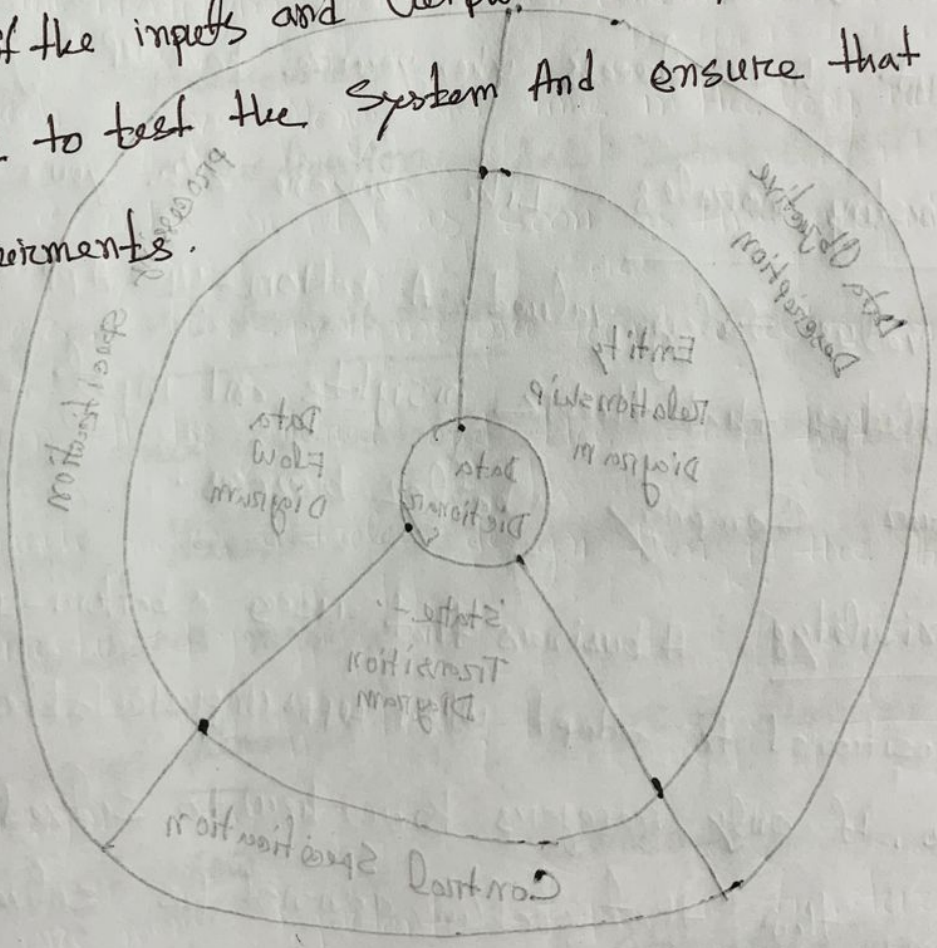
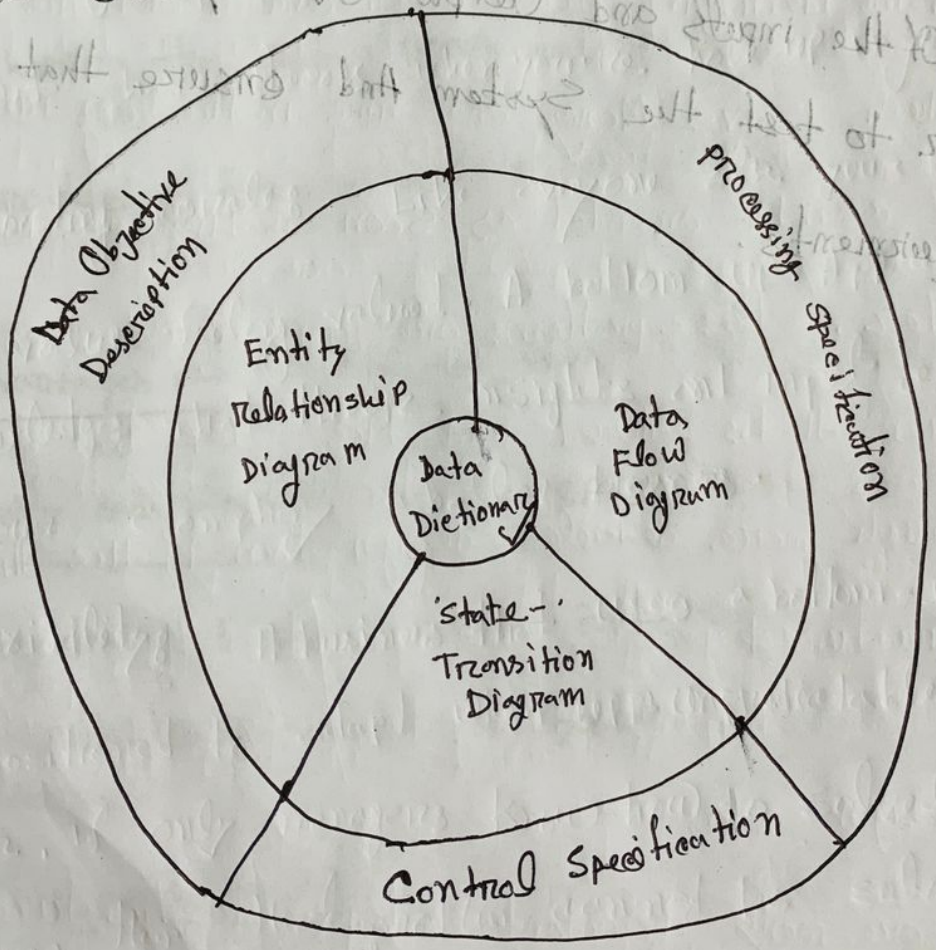
③ Improved ~~Maintable~~ Maintainability: The SA/SD method provides a clear, a organized structure for a system, which can Make it ~~is~~ easier to maintain and Update the system over time.

④ Better testability: The SA/SD Method provides a clear definition Of the inputs and Output of a System. which makes it easier to test the System And ensure that meets its requirements.



Answer to the Question- 3

Ans: **Objective Analysis modeling:** The analysis Model must Achieve three primary Objective to describe what the Customer requires to establish a basis for the creation of a Software design, And to define a set of Requirements that can be validated once the Soft ware is built.



objectiv Analysis modeling;

Elements of Analysis Model –

- Data Dictionary: it is a repository that consists of a Description of All Data objective used or produced by the Software.
- Entity Relationship Diagram (ERD)
- Data Flow Diagram
- process Specification
- Control specification And Datat objective description

⇒⇒ **Element of the Analysis modeling:** The specification element of the analysis model are dicated by the analysis modeling method that is to be used. However, a set generic element is common to most Analysis models

Scenario-based elements: The System is described from the users, point of view using a scenario-based Approach.
-it Always good idea to get stakeholder involved.
On of the best ways to do this is to have each stakeholder write use-case that describe how the Software engineering Model will be used.

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Answer to the Question No - 4

Bottom up - Strategus Advantage:

⇒ Using your resources: your already paying your staff to Come to work and do their job, so you might as well also take Advantage of the insights they glean from being immersed in dy-tody Operation. They see and hear things to which you don't have Access when you're hale up in your Office

⇒ Boosting morale: Like everyone else your Employees well value feeling valued. A bottom-up Approach Acknowledges that their insights and input can help make your Company a batter buesnes.

⇒ Flexibility: A business that usees a bottom-up Aproach is well positioned to adapt when unpredictable circumstance occeur. If only managers know how to solved a problm, then that problm cannot be solved if no manager is present, However if employe are Empowered to also make mangement.

Disadvantages of the Bottom-up strategy:

⇒ **Lack of cohesion:** when decisions are being made a Multiple levels, your business runs the risk of operating without clear strategy. you may receiv qut quality input from multiple Source, but Employee may be Operating without checking in with one Another.

⇒ **Lack of Experience:** All through employee often see and Hear thing that Managers do. not, managers often have training and Experience that Allow them to Consider the bigger often have the picture. A bottom-up management Approach introduces the risk that worker will try untested ideas without the broad. perspective and knowledge necessary todo Effectively.

⇒ **Ego Strike:** when multiple Employee are empowerd to make dession and propse change. your business run the risk of having egoes clash when staff numbers disagree This can cause dishonory that egos clash when Staff mamber disagree.