**DAR ES SALAAM INSTITUTE OF TECHNOLOGY**

**COMPUTER DEPARTMENT**



**ASSIGNMENT 01**

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**CLASS**: BENG-17 COE

**SUBJECT:** SYSTEM ANALYSIS AND DESIGN

1. **Distinguish between logical process models and physical process models.**

**Answer:**

1. Logical process Model: models that describe processes, without suggesting how they are conducted. When reading a logical process model, you will not be able to tell whether a process is computerized or manual, whether a piece of information is collected by paper form or via the Web, or whether information is placed in a filing cabinet or a large database.
2. Physical process model: Is defined during the design phase when these logical models are refined into *physical models*, which provide information that is needed to ultimately build. By focusing on logical processes first, analysts can focus on how the business should run, without being distracted by implementation details.
3. **Why a process model is typically composed of a set of DFDs? What is meant by decomposition of a business process?**

**Answer:**

Most business processes are too complex to be explained in one DFD. **Most process models are therefore composed of a set of DFDs.** The first DFD provides a summary of the overall system, with additional DFDs providing more and more detail about each part of the overall business process. Thus, one important principle in process modeling with DFDs is the decomposition of the business process into a hierarchy of DFDs, with each level down the hierarchy representing less scope but more detail.

**Decomposition of business process:** means breaking business processes into small, logical processes which contribute modular design of a system, reuse of its parts and its overall comprehensibility.

1. **Explain the use of structured English in process descriptions.**

**Answer:**

Structured English derive from structured programming and its use of logical construction and imperative statements.

Structured English use short and clear sentences to describe the roles that system performs.

1. **Identify three typical syntax errors commonly found in DFDs.**

**Answer:**

Syntax error are those error which arise as the results of violating rules of DFD language.

1. **A black hole**: this is when a process has inputs but not output data inters the process and then disappear.
2. **A gray hole**: this is when the inputs of a process are insufficient to produce the output.
3. **A miracle**: A processing step may have output flows but now input flows.
4. **Suppose that your goal is to create a set of DFDs. How would you begin an interview with a knowledgeable user? How would you begin a JAD session?**

A goal here is to create set of data flow diagram using JAD session.

Firstly u will begin with the use cases even if the goal is to create a set of DFDs.

I will start an interview with a knowledgeable users with JAD session by identifying the major events that are handled by the system and to complete the use cases for those events.

**REFERENCES**

* Allan Dennis, Barbara Wixom & R.M Roth (2008), System Analysis and design5th edition.
* http://www.tutorialpoint.com/system\_analysis\_and\_design/system\_design.htm.