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**CLASS : BS.SE**

**SUBMITTED TO : Sir Shahab ul Islam**

**HUMAN COMPUTER INTERACTION** Marks (30)

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**Q1:**

**Marks**

- a) **What is the main aim of the Don Norman's Book (The Design of Everyday things)?**  
(02)

**Answer :**

- The main Point of the Don Norman ,s Book is that people are not reading manuals, so we should design things instead of manuals .

- b) **Explain Deductive and Abductive reasoning with examples.**  
(04)

**Answer :**

**Deductive :**

It is also call deductive logic, deductive is the process of reasoning from one or more premises to get a logical conclusion.

e.g. If it is Monday then she will go to work

It is Monday

Therefore she will go to work.

**Abductive :**

It is also called abductive inference, or retrodution · it is a form of logical inference which starts with the set of observations or an observation and then use the most likely or simplest explanation for this observations.

e.g. Ali drives car very fast when drunk.

If I see Ali driving very fast, i assume he drunk.

**Q2:**

Analyze the following scenario and write down seven stages of action for given particular  
(06)

scenario for solution.

**Scenario is:**

**Suppose I want to go to University, but the tyre of my car got punctured. Now I have to repair it.** You are required to write the seven stages of Gulf of Execution and Evaluation to solve the scenario.

**Answer :**

There are seven stages of action for scenarios . for the given example the seven stages are ,

Stage 1 :

Forming a goal , my goal is go to university .

Stage 2 :

Forming the intention ,the car will be okay to go to university . but the car is punctured .

Stage 3 :

Satisfying an action , I will go to the workshop to repair my car tyre .

Stage 4 :

Executing the action , here I would the steps of action I would build the tyre of my car .

Stage 5 :

Perceiving the stage of the world , I fixed my car now I will go to university .

Stage 6 :

Interpreting the use of world , my tyre is fix and I am on the way to university.

Stage 7:

Evaluating the outcome , I reached to the university in my car thus I achieve my goal .

**Q3:**

a) **Differentiate slip and mistake.**

(03)

**Answer :**

**Mistake :**

*When people make an error and they do not know what to do because they do not have learned properly and not taught to use properly things . this is called mistakes.*

**Slip :**

It is when the user has makes an error on accident. The user use the correct mental model for the interaction yet they make an error by accident .

b) **Explain self perception and object perception.**

(03)

**Answer :**

**Self perception :**

Self perception is the process in which people develop a view of themselves. Self perception is developed from social interaction within different groups.

There are three Self-perception parts which are ,

Self-presentation

Self-concept

Self-esteem

**Object perception :**

It is the process in which people develop a view of objects they see.

**Q4:**

- a) **Write the steps involved in perceptual process.**  
(02)

**Answer :**

There are many steps which are involved in perceptual process .

1. Recognition
2. The Environmental Stimulus
3. The Image on the Retina
4. Neural Processing
5. The Attended Stimulus
6. Action
7. Transduction
8. Perception

- b) **Differentiate between perception and recognition.**  
(04)

**Answer :**

The difference between perception and recognition.

**Perception :**

is organization, identification, and interpretation of sensory information

**Recognition :**

Recognition is the process of recognizing or the condition of being recognized.

**Q5:**

- a) A graphic designer, wants to design a 3d shape using Adobe Illustrator, he select a  
(03)

shape, apply some gradient on it and then apply drop shadow effect.

In the given scenario in the light of interaction identify the Goal, Problem domain and the task.

- b) **Explain Gulf of Execution and Gulf of Evaluation.**  
(03)

**Answer :**

**Gulf of Execution:**

Commands and mechanisms need to match the goals, thoughts, and expectations of a person

**Gulf of Evaluation:**

Output needs to present a view of the system that is readily perceived, interpreted, and evaluated