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Question # 1

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

Ans) The Design of Everyday Things shows that good, usable design is possible. The rules are simple: make things visible, exploit natural relationships that couple function and control, and make intelligent use of constraints. The goal: guide the user effortlessly to the right action on the right control at the right time.

b) Explain Deductive and Abductive reasoning with examples.

Ans) **Deductive Reasoning :**
Starts with the assertion of a general rule and proceeds from there to a guaranteed specific conclusion. General to particular.

(2)

Example: if it is Friday then he will go to work.

It is Friday

Therefore he will go to work.

Abductive Reasoning :

Typically begins with an incomplete set of observation and proceeds to the likeliest possible explanation for the set and does its best with the information at hand, which often is incomplete. Reasoning from event to cause.

Example: ground is wet, if it raining.

Ground is wet

So, it is raining

Question # 3

a) Differentiate slip and mistake.

SLIP : slip is basically doing the right thing with good intention but failed to do it right.

MISTAKE : When your doing the project with wrong intention from the very start.

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b) Explain self perception and object perception.

SELF PERCEPTION :

Self-perception theory posits that people determine their attitudes and preferences by interpreting the meaning of their own behavior.

OBJECT PERCEPTION :

Object perception or object recognition is the process in which visual input is assigned a meaningful interpretation that is available to perceptual awareness.

Question # 4

a) Write the steps involved in perceptual process.

1) The perceptual process consists of six steps: the presence of objects, observation, selection, organization, interpretation and response.

2) Perceptual selection is driven by internal (personality, motivation) and external (contrast, repetition) factors.

(4)

b) Differentiate between perception and recognition.

PERCEPTION :

Perception is organization, identification and interpretation of sensory information. Perception. It basically means the way in which something is regarded, understood, or interpreted. Since, images are perceived by human, therefore it varies from human to human.

RECOGNITION :

Recognition is the act of ~~recognition~~ recognition or the condition of being recognized.

Recognition : In image processing object recognition is a method which helps to identify objects which are present in an image. It categorizes the objects, e.g. a dog present in an image can be recognized as a dog only.

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Question # 5

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

Ans) **Goal** = wants to design a 3d shape using adobe illustartor.

Domain = Graphic designining.

Task = Selects shape, applys some gradient, applys drop effect.

b) Explain Gulf of Execution and Gulf of Evaluation.

THEN THE GULF OF EXECUTION BEGINS:

Formulates intention

Specifies actions at interface

Executes action

WHILE GULF OF EVALUATION BEGINS AT:

Perceives System state

Interprets System state

Evaluates System state with respect to goal.

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Question # 2

Analyze the following scenario and write down seven stages of action for given particular 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.

Forming A Goal :

This is what you want. As an example, I want to go to school but the tyre of my car got punctured. Now i have to repair it.

Forming the Intention :

This is what would satisfy the goal. A repaired car would satisfy my goal of reaching the school.

Specifying an Action :

What do i have to do achieve the intention? I would need to repair a car to meet the requirement set in my goal.

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Executing the Action :

Here i would do the steps of the action. I would repair the car.

Perceiving the State of the World :

Using the senses to gather information. My repaired car would be able to move to the school.

Interpreting the state of the World :

What has changed? Punctured tyre of my car has been changed and it can move now.

Evaluating the Outcome :

Did i achieve my goal? I can move towards school now without worrying.