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Q.1:

a) What is the main aim of the Don Norman's Book (the design of every things)?

Ans: The Design of Every Things is a best-selling book by cognitive scientist and usability engineer Donald Norman about how design serves as the communication between object and user, and how to optimize that conduit of communication in order to make the experience of using the object pleasurable.

b) Explain deductive and Abductive reasoning with examples.

Ans: Deductive Reasoning: Deductive Reasoning is defined as a way of building an argument from general premises to a conclusion. If the principle selected is correct and clear, the rules of deductive reasoning are prepared. It is also called a top down thinking general statement to specific one sand then to conclusion.

Example: All numbers ending in 0 or 5 are divisible by 5. The number 35 ends with a 5, so it must be divisible by 5.

 Abductive Reasoning: Abductive reasoning is to abduce a logical assumption, explanations, conclusion, hypothesis, or best guess from an observation. because the conclusion is merely a best guess.

Example: let's say you're a juror and defendant looks like the image of the man on the security camera robbing the bank. He stutters and pauses, like he is guilty, when answering questions posed by prosecutor.

Q.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 the car got punchured. Now I have to repair it.

You are required to write the seven stages of gulf of execution and evaluation of the scenario.

Ans: Stage 1: Deciding the goal this is what you want. As an example, I want to go university, but the tyre of my car got punchured. Now I have to repair it.

Stage 2: Intension to act this is what would satisfy the goal. A repaired car would satisfy my goal of reaching the university.

Stage 3: Sequence of Actions what do I have to do to achieve the intention? I would need to repair a car to meet the requirement set in my goal.

Stage 4: Executing of the actions here I would do the steps of the action, I would repair the car.

Stage 5: Perceiving the State of the World using the scenario to gather information. My repaired car would be able to move to the university.

Stage 6: Interpreting the State of the World what has changed? Punctured tyre of my car has been changed and it can move now.

Stage 7: Evaluating the Outcome did I achieve my goal? I can move towards university now without worrying. I achieved my goal.

Q.3:

a) Differentiate slip and mistake.

Ans: Mistakes:

- Mistakes are errors in choosing an objective a method of achieving it.
- If the intention is not appropriate, this is a mistake.

- Cause: incorrect , understanding.
- May not even have to right goal.

Slip:

- Slips are errors in carrying out an intended method for reaching an objective.
- If the action is not what was intended, this is a slip.
- Understand system and goal
- Right intention, but failed to do it right.

b) Explain self perception and object-perception?

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

Participants incorporated attributes relevant to the actor's behavior into their own self-concepts, leading participants to then change their own behaviors.

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

Object perception is thought to occur though computations across a hierarchy of processing stages in visual cortex, named the ventral visual pathway.

Q.4:

a) Write the steps involved in perceptual process?

Ans: Steps are:

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

b) Differentiate between Perception and Recognition?

Ans: Perception:

➢ Perception is organization, identification, and interpretation of sensory information.

- ➢ We actually perceive the stimulus object in the environment.
- ➢ It is at this point that we become consciously aware of the stimulus.

Recognition:

- ➢ Recognition is the act of recognizing or the condition of being recognized.
- ➢ Perception doesn't just involve becoming consciously aware of the stimuli.
- ➢ It is also necessary for our brain to categorize and interpret what it is we are sensing.

Q.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 goals , problem domain and the task.

Ans: Goal: Designing 3D shape in the goal in the given scenario.

Problem Domain: Selecting and making of shape is the problem in the given scenario.

Task: The task is to selecting a shape, applying some gradient and applying drop shadow.

b) Explain Gulf of Execution and Gulf of Evaluation?

Ans: Gulf of Execution: In human computer interaction, the Gulf of execution is the gap between a user's goal for action and the means to execute that goal.

Example: online purchase

Large gulf of execution: Add item to car, select checkout, enter shipping, address, choose shipping options etc.

Gulf of Evaluation: Disparity between the user's perception(or discovery) of the system state, and the actual system state.

Example: Copying a large number of files

Large gulf of evaluation: hourglass, spinning pinwheel, no details.

Small gulf of evaluation: progress bar with listing of current file being copied.