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**Subject : Human computer Interaction**

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**Mid Term Paper**

**Answer***:*Donald Norman about how design is the communication between object and user, and the way to optimize that conduit of communication so as to form the experience of using the item pleasurable. one among the most premises of the book is that although people are often keen answerable themselves when objects appear to malfunction, it's not the fault of the user but rather the dearth of intuitive guidance that ought to be present within the design.

 **OR**

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.

**Question no 2:**

**Abductive reasoning:**
Another kind of scientific reasoning that does not slot in with inductive or abstract thought is Abductive. Abductive reasoning usually starts with an incomplete set of observations and proceeds to the likeliest possible explanation for the group of observations. it's supported making and testing hypotheses using the simplest information available. It often entails making an informed guess after observing a phenomenon that there's no clear explanation.

**For example**, Ground is wet, If it is raining.

 Ground is wet

 So, it is raining

**Deductive reasoning:** is a basic form of valid reasoning. Deductive reasoning, or deduction, starts out with a general statement, or hypothesis, and examines the possibilities to reach a specific, logical conclusion

**Example:**If it is Friday then he will go to work

 It is Friday

 Therefore he will go to work

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**Question2:Analyse 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.**

****Solution:****
****Stage 1**** is Forming a Goal. This is what you want. As an example, I want to go to university, but the tyre of my car got punctured. Now I have to repair it.
****Stage 2**** is Forming the Intention. This is what would satisfy the goal. A repaired car would satisfy my goal of reaching the university.
****Stage 3**** is Specifying an Action. 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**** is Executing the Action. Here I would do the steps of the action. I would repair the car.
****Stage 5**** is Perceiving the State of the World. Using the senses to gather information. My repaired car would be able to move to the university.
****Stage 6**** is Interpreting the State of the World. What has changed? Punctured tyre of my car has been changed and it can move now.
****Stage 7**** is Evaluating the Outcome. Did I achieve my goal? I can move towards university now without worrying. I achieved my goal.

**Q3:**

**a) Differentiate slip and mistake. (03)**

**b) Explain self perception and object perception.**  (03)

**Answer (a)**:**A slip**, it says, occurs “when a person plans to do one thing, but then inadvertently does something else.”

**A mistake**, by contrast, “occurs when a person plans to do the wrong thing and is successful.”

**(b)Self perception:**Self perception is a process by which people develop a view of themselves.

It is developed from social interaction within different groups.

***Self-perception has three parts:***

* Self-concept
* Self-esteem
* Self-presentation

**Self-concept:**

1. It refers to how someone thinks about or perceives themselves
2. You see yourself as a LOVEABLE and WORTHWHILE person
3. You feel uncertain and uncomfortable about yourself-you fear possible rejection
4. Self-identity is the mental and conceptual awareness of strengths and weaknesses

 **Self-esteem:**

1.Emotional dimension of self-perception

2.Positive and negative judgements people have of themselves

3.People with low self-esteem tend to be unsuccessful; do not adapt well to stressful events

4.Those with high self-esteem have the opposite experiences

 **Self-presentation:**Behavioural strategies people use to affect how others see them

***Goals of self-presentation***

Affect other people's impressions to win their approval

Increase the person's influence in a situation

Ensure that others have an accurate impression of the person

**Object Perception:**

Object perception is a process by which people develop a view of objects they see.

**Answer 4 (a)**Write the steps involved in perceptual process

**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

 **Part(b):**Differentiate between perception and recognition

**Perception:** It basically means the way in which something is regarded, understood, or interpreted. Since, images are perceived by humans, therefore it varies from human to human.

**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.

**Question no 5 part (a):**

1. 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

**Answer(a):**

**Forming a Goal:** This is what you want. design a 3d shape using Adobe Illustrator,

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

**Problem Domain:** To make 3d shape experience and practice is needed ,what type

of shape which tool will be used.

**Task** : open a new file in illustrator with a pen tool draw a shape maybe a square

add gradient to it using gradient tool then make .Click on effect ,3d and then

Extrude and bevel. Then a Dialog Box will open with some 3d settings adjust it

angle , Direction ,Perspective etc and click okay a 3d shape will be formed.

**Question no 5 part b:**

#### **The Gulf of Execution**

The gulf of execution is the degree to which the interaction possibilities of an [artifact](https://www.interaction-design.org/literature/topics/artifact%22%20%5Co%20%22What%20is%20Artifact), a computer system or likewise correspond to the intentions of the person and what that person *perceives* is possible to do with the artefact/application/etc. In other words, the gulf of execution is the difference between the intentions of the users and what the system allows them to do or how well the system supports those actions .

**The gulf of evaluation:**

The gulf of evaluation is the degree to which the system/artefact provide representations that can be directly perceived and interpreted in terms of the expectations and intentions of the user.