Design, Technology and Innovation, May 2024

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Assignment 7

W7A7Q1-MCQ: As per the lecture by Prof. Amaresh Chakrabarti, why was Purak (the prosthetic arm) such a successful innovation?

- 1. This prosthesis looked exactly like a human hand hence users liked it
- 2. This prosthesis used only one actuator and reduced the cost significantly
- 3. This prosthesis was designed by IIT Bombay hence was instantly famous
- 4. This prosthesis was novel in the market with no competitors

W7A7Q2-MCQ: Complete the sentence. Prof. Amaresh Chakrabarti says an innovation can only prosper when Business and Society exchange _____?

- 1. Technology and development
- 2. Value and knowledge
- 3. Value and profit
- 4. Technology and information

W7A7Q3-MSQ: As mentioned in the module 'Research to Innovation', what are the important things to be considered in conceptual design?

- 1. All alternatives need to be developed to the same degree
- 2. Multiple alternatives must be generated
- 3. Alternatives should not be developed as much as the main concept
- 4. Alternatives must be modified till they at least satisfy all major requirements

W7A7Q4-MCQ: What is 'Domain Knowledge of Users' according to Prof. Amaresh Chakrabarti?

- 1. 'Domain knowledge of Users' is about knowing about their profession.
- 2. 'Domain knowledge of Users' is the knowledge they have about their own profession.
- 3. Prof. Amaresh Chakrabarti did not speak anything about 'Domain knowledge of users'
- 4. 'Domain knowledge of Users' is the knowledge about your user's aspirations, requirements, etc.

W7A7Q5-MCQ: What is the 'value' in traveling by metro instead of car?

 I have to take an autorickshaw from the metro station to reach the office

- 2. I can enjoy the air-conditioning while traveling
- 3. It is crowded
- 4. It is significantly cheaper and also avoids the traffic jams

W7A7Q6-MCQ: What did Prof. Amaresh Chakrabarti mean when he said, "Strong emphasis on realizability of design"?

- 1. Realize the actual design process
- 2. Realize the practicality of making the product using real manufacturing processes
- 3. Realize the product's importance in the market
- 4. Realize the product cost

W7A7Q7-MCQ: How did the combustion engine designed by Rolls Royce stop the formation of ice at the nose cone?

- 1. By heating the cone
- 2. By shaking the cone using a wiggle motor
- 3. By changing the nose cone material to a flexible material
- 4. By hardening the turbine blades using chemicals

W7A7Q8-MCQ: 'Purak' is a machine to pick cotton.

- 1. True
- 2. False

W7A7Q9-MCQ: What is the scope of a designer in order to make business and create value in society?

- 1. Performance of the design and Reachability to masses
- 2. Performance of the design and Cost of the design
- 3. Cost of the design and Reachability of the masses
- 4. Cost of the design and Reliability of the product

W7A7Q10-MSQ: Why does Prof. Amaresh Chakrabarti emphasizes on the business aspect of any innovation?

- 1. Because the business aspect is like fuel to innovation
- 2. Because the business aspect makes the innovation sustainable
- 3. Because the business aspect makes the innovation reach the society
- 4. Because without the business aspect no innovation can make an impact