

Design, Technology and Innovation

Week 2: Practice Questions

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1. In 2012, what did Professor Solanki identify as a primary problem with most solar programs?
 - (a) The mechanism of 'buy and sell'
 - (b) Oversupply of solar panels
 - (c) Lack of consumer interest
 - (d) Competition with other energy sources
 - (e) All of the above
2. What was the primary purpose of the Solar Urja Lamp (SoUL) project?
 - (a) Cooking
 - (b) Street lighting
 - (c) Study purpose
 - (d) Entertainment
 - (e) None of the above.
3. Which of the following is NOT a challenge mentioned about technologies reaching the people?
 - (a) Product is expensive.
 - (b) Lack of technical support.
 - (c) Continuity of availability.
 - (d) Oversaturation in the market.
 - (e) None of the above.
4. Objective of SoUL in Rural India is:
 - (a) Understanding the need of the community and provide external aid.
 - (b) Learn the needs of rural India and take it forward to the Ministry.

- (c) Provide solar lamps to students, generate employment and create a solar market.
 - (d) Document and publish the plights of the rural Indians and attract investors.
5. The solar lamp initially had the following issues:
- (a) It was very heavy and difficult to carry.
 - (b) It was aesthetically beautiful and looked like a premium product.
 - (c) It cast bigger shadows of itself and had maintenance problems.
 - (d) It could only be hung from the ceiling and not placed on the table.
6. What type of decisions did the SoULs project involve?
- (a) Strategic decisions.
 - (b) Tactical decisions.
 - (c) Technological decisions.
 - (d) All of the above.
7. How did the SoULs team prevent leakages due to corruption?
- (a) By making the lamp accessible to all eligible people in a block within a short period of time.
 - (b) By pricing the lamp at the market rate.
 - (c) By penalizing those involved in corruption and resale of lamp.
 - (d) By spreading awareness and advertisements about the availability of the lamp to all.
 - (e) All of the Above.
 - (f) None of the Above.
8. Community Based System Dynamics (CBSD), as an approach, includes which of the following, as per Prof Jayendran?
- (a) Problem identification involving the local community.
 - (b) Development of the model and identification of the key variables upon discussion with the community.
 - (c) Causal Loop Diagramming, working with the community.
 - (d) Simulation models which accurately represent the problem.
 - (e) None of the above.

9. What are the most common problems of rural electrification as per Prof Solanki?

- (a) Cost of solution
- (b) Scalability of solution
- (c) Availability of funds
- (d) Availability of technology
- (e) Good quality solution
- (f) Time for electrification