

Code No: 154CU

**R18**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech II Year II Semester Examinations, September/October - 2023**

**DESIGN THINKING**

**(Computer Science and Design)**

**Time: 3 Hours**

**Max. Marks: 75**

**Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

**PART – A**

**(25 Marks)**

- 1.a) Write a short note on creative thinking as basis of innovation. [2]
- b) Discuss briefly about defining a Point of view. [3]
- c) Write a short note on Clear Articulation of problem statement. [2]
- d) Differentiate between Linear Innovation vs. non-linear innovation. [3]
- e) Explain briefly about Service Experience Cycle. [2]
- f) Write a short note on Enhancing Customer Experience. [3]
- g) Explain the concern for Environment in Design. [2]
- h) Write a short note on role of Sustainability in Design. [3]
- i) Write a short note on Testing Solution. [2]
- j) Explain briefly about validated learning with accessible metrics. [3]

**PART – B**

**(50 Marks)**

2. Write a detailed note on identifying problems in daily lives and in the world at large. [10]

**OR**

3. Discuss in detail about thinking from the problem before thinking of a solution. [10]

4. Write a detailed note on 3-Box framework and Box-3 ideation. [10]

**OR**

5.a) Explain in detail about understanding and identifying weak signals.

b) Discuss in detail about brainstorming potential solutions. [5+5]

6. Write a detailed note on understanding innovation through design thinking. [10]

**OR**

7. Discuss in detail about service design and development process with a case study. [10]

8. Write a detailed note on design considerations in the five stages of the Product Life Cycle. [10]

**OR**

9. Write a detailed note on DFE decisions. [10]

10. Discuss in detail about prototype building by different engineering disciplines within the team. [10]

**OR**

11. Write a detailed note on applying design thinking Principles and methods for ideation and prototyping. [10]

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