<u>Course Name: **DESIGNING THINKING**</u>
**Course Outcome**
CO1: Analyse design thinking concepts and principles to perform human centered design process for creative problem solving.
CO2: Create empathy maps to visualize user attitudes and behavior for gaining insights of customers.
CO3: Develop innovative products or services for a customer base using ideation techniques.
CO4: Build prototypes for complex problems using gathered user requirements.
CO5: Apply design thinking tools techniques to produce good design and relevant products or services for a specific target market.
CO6: Improve prototype by testing it with a specific set of users for making it sustainable by following ethics.
**Printed Pages: 2**                    **University Roll No. ........................**

# End Term Examination, Even Semester 2021-22
## B.Tech.(Hons)-CSE, I- Year, II- Semester
## BCSG 0051: DESIGNING THINKING

**Time: 3 Hours**                              **Maximum Marks: 45**

**Instruction for students:**
All the questions are compulsory.
Attempt the questions as per section wise order.

## Section – A

*Attempt All Questions*                                      4x5 = 20 Marks

| No. | Detail of Question | Marks | CO | BL | KL |
|---|---|---|---|---|---|
| 1 | Enlist the various types of thinking process and its appropriate application. | 4 | 1 | R | F |
| 2 | Explain various phases of Design Thinking by considering a suitable case study related to healthcare. | 4 | 2 | U | P |
| 3 | Why Visualization is important in Ideation phase? Name the techniques which help in better visualization? | 4 | 2 | A | M |
| 4 | What is prototyping? What is Minimum Viability Product and why it is important? | 4 | 4 | R | C |
| 5 | Why testing of Prototypes are so very important? What is difference between testing a digital product vs testing a physical product? | 4 | 5 | E | F |

## Section – B

**Attempt All Questions**

3x5=15 Marks

| No. | Detail of Question | Marks | CO | BL | KL |
|---|---|---|---|---|---|
| 1 | Give three examples of Prototyping. | 3 | 3 | R | F |
| 2 | What is Fidelity for Prototypes? | 3 | 3 | R | F |
| 3 | Explain how story boarding approach helps in defining the features of prototype. | 3 | 4 | U | C |
| 4 | Define basic preparation requirement for testing the physical products | 3 | 4 | A | F |
| 5 | Discuss the process of testing prototypes with users. | 3 | 4 | A | P |

## Section – C

**Attempt All Questions**

5 x 2 = 10 Marks

| No. | Detail of Question | Marks | CO | BL | KL |
|---|---|---|---|---|---|
| 1 | Illustrate the phases of Design Thinking by block diagram. Inside every block, mention two activities in the respective phase. | 5 | 2 | C | C |
| 2 | Explain, why is "prototype testing with the users" the most important activity for the success of the design thinking process? | 5 | 5 | U | C |