B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023
Fifth Semester
Computer Science and Business Systems
20CBPC503 - DESIGN THINKING
(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

Marks, K-Level, CO

1. List the features of design thinking. — *2,K1,CO1*
2. List the features of divergent thinking. — *2,K1,CO1*
3. Define empathy. — *2,K1,CO2*
4. State the importance of building empathy map. — *2,K1,CO2*
5. Why a problem statement needed? — *2,K1,CO3*
6. Write the purpose of creating persona development. — *2,K1,CO3*
7. Write the purpose of ideation phase. — *2,K1,CO4*
8. How to evaluate ideas of design thinking? — *2,K1,CO4*
9. Define prototype. — *2,K1,CO5*
10. State the importance of value proposition. — *2,K1,CO5*

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11. a) "Design thinking is human centric". Discuss. — *13,K2,CO1*

    OR

    b) (i) What is design thinking? Explain the principles of design thinking. — *6,K2,CO1*
       (ii) Discuss in detail about the applications of design thinking. — *7,K2,CO1*

12. a) Discuss the steps involved in empathize phase with suitable example. — *13,K2,CO2*

    OR

    b) Discuss in detail about deep user interview with suitable example. — *13,K2,CO2*

13. a) Explain the importance of define phase with suitable examples. — *13,K2,CO3*

    OR

    b) What is a problem statement? What makes a good problem statement? How to write a meaningful problem statement? — *13,K2,CO3*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

"I am a young working professional trying to eat healthily, but I'm struggling because I work long hours and don't
always have time to go grocery shopping and prepare my meals.
This makes me feel frustrated and bad about myself." Give solution and explain 5 why's for the above problem.

14. a) Discuss in detail the steps involved in Ideate phase in DT. *13,K2,CO4*

OR

b) (i) Demonstrate the ideation phase using SCAMPER with suitable example. *6,K2,CO4*

(ii) Illustrate the ideation phase using Analogous Inspiration with suitable example. *7,K2,CO4*

15. a) Discuss IBM approach of design thinking. *13,K2,CO5*

OR

b) What is testing in design thinking? Why is the testing important? Discuss about user testing methods. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) (i) Utilize the concept of Design thinking and solve: Suppose the problem statement at hand is to contain the attrition that happens in companies worldwide. High quality employees leave the organization, mainly after the appraisal cycle. As a result, an average company loses its valuable human resources and suffers from an overhead of transferring the knowledge to a new employee. This takes time and additional human resource in the form of a trainer, which adds to the company's costs. Devise a plan to contain attrition in the company. Explain the two tasks of design thinking and solve the above problem with analysis and synthesis tasks in design thinking. *8,K3,CO1*

(ii) Identify the importance of storytelling in presenting ideas. *7,K3,CO4*

OR

b) (i)Identify the importance of design thinking in healthcare sector. *8,K3,CO1*

(ii)Organize the basic steps of doodling in design thinking. *7,K3,CO4*