Late Shri Karmaveer Dadasaheb Thakur's (Regd.)
THAKUR COLLEGE OF
ENGINEERING & TECHNOLOGY
Autonomous College Affiliated to University of Mumbai
Approved by All India Council for Technical Education(AICTE) and Government of Maharashtra(GoM)
Conferred Autonomous Status by University Grants Commission (UGC) for 10 years w.e.f. A.Y 2019-20
Amongst Top 200 Colleges in the Country, Ranked 191st in NIRF India Ranking 2019 in Engineering College category
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END SEMESTER EXAMINATION, DECEMBER 2022

B. E. SEMESTER VII (CBCGS-H 2019)

Branch:	All Branches	**Q.P. Code:**	4713OE200433
Subject:	Open Elective-II Design Thinking and Problem Solving	**Duration:**	3 hours
Subject Code:	OEC-IT 7013	**Max.Marks:**	75

Instructions:
1. All sections are compulsory
2. Figures to the right indicate full marks.
3. Assume suitable data if necessary and state the assumptions clearly.

Section-I Short Answer Questions (Answer any 05 questions out of 06) (10 Marks)
(Fundamental, Core Types)

Q. No.		Marks	CO	RBT Level	PI
1	State what is Prototyping? How to carry out prototyping?	2	CO4	L1	1.7.1
2	Express the need for Agile collaboration?	2	CO5	L2	2.8.2
3	State the success factors when implementing design thinking	2	CO1	L1	1.6.1
4	Interpret the Benefits Of Project Documentation?	2	CO1	L2	2.8.3
5	Mention the need for Team formation in Design thinking and Problem solving process	2	CO2	L1	1.7.1
6	Interpret how brainstorming is useful in problem solving	2	CO3	L2	1.7.1

Section-II Descriptive Answer Questions (Answer any 05 out of 07) (25 Marks)
(Descriptive, Comprehension Types)

1	Illustrate Collaboration in distributed Design in detail.	5	CO4	L3	1.7.1
2	Demonstrate What is agile? Illustrate Agile Methodology Frameworks?	5	CO5	L3	3.8.1
3	Explain Rapid Prototyping. State the benefits of Prototyping in Business design.	5	CO6	L4	1.7.1
4	Compare and Contrast Deductive and Inductive reasoning	5	CO3	L3	4.6.4
5	Illustrate Steps to build logical thinking skills	5	CO3	L3	4.6.3
6	Explain the phases of Design Thinking for an Online Clothing store	5	CO1	L3	4.6.3
7	Explain Importance of Documentation and types of log book.	5	CO2	L4	3.6.1

P.T.O

Section-III	Long Answer Questions (Answer any 04 out of 06) (Application, Analytical, Evaluation, Design Type)				(40 Marks)
1	Design Empathy Map for buying a Car.	10	CO4	L1	3.8.2
2	Design Business canvas for Food Ordering System	10	CO2	L4	3.8.2
3	Explain any 2 of the following with examples: a. verbal reasoning b. analogy problems c. lateral thinking	10	CO3	L2	3.8.2
4	Apply Design thinking phases for the problem statement of **"How to inculcate healthy food habits amongst students"**	10	CO1	L5	3.8.1
5	Explain the need for Team formation in Design thinking and Problem solving process	10	CO2	L3	2.6.2
6	Evaluate the following with examples: i. Divergent thinking ii. Convergent thinking	10	CO5	L6	3.5.1