



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:IV
Class:SY	Program:B.Tech
Branch Code:ELE	Pattern:2022
Name of Course:Design Thinking for Academic Project	Course Code:ELE222015
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Marks CO

Question No. 1

- 1a) Identify and elaborate on six possible reasons for the failure of a project. (6) CO1

Question No. 2

- 2a) Describe the Prototype and Test phases of the Design Thinking process. Explain the stepwise procedure for prototyping and testing. (6) CO3

Question No. 3

- 3a) Define a Project Plan. Explain the systematic process of developing an effective project plan. (8) CO2

OR

- 3b) What is meant by the Scope of a Project? Describe how the project scope is defined and managed. (8) CO2

- 3c) Explain the concept of a Project Block Diagram. Describe the steps involved in sketching it effectively. (8) CO2

OR

- 3d) Discuss the significance of Project Methodology in an academic project. Explain how it can be structured logically. (8) CO2

Question No. 4

- 4a) Define Mathematical Modelling. Explain the process of modelling a system mathematically. (8) CO2

OR

- 4b) Explain the concept of Software Modelling or Software Development. Describe the process of modelling a system using appropriate software tools. (8) CO2

- 4c) What is meant by Hardware Model Development? Describe the essential steps to develop the hardware component of a project. (8) CO2

OR

- 4d) Write a short note on Research Paper Summarization. Describe the stepwise method to summarize a research paper effectively. (8) CO2

Question No. 5

5a) Define Professional Ethics. State and explain ethical practices to be followed in academic projects. (8) CO4

OR

5b) Describe the typical structure of a research article, explaining the role of each section. (8) CO4

5c) Enumerate and explain the components of a research proposal. (8) CO4

OR

5d) Describe the steps to prepare and deliver a project presentation effectively. (8) CO4

..... **End of question paper**.....