



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

InSem Examination-I Winter2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:I
Class:PG-I	Program:M.Tech
Branch Code:ETC	Pattern:2024
Name of Course:Research Methodology and IPR	Course Code:2402505
Max. Marks:30	Duration:1.15 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 1 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

- 1 a) Define Research Methodology and Research Techniques, clearly distinguishing between the two terms based on their scope and application. (7) CO1

Question No. 2

- 2 a) Elaborate on four essential criteria that define a "good research" study (e.g., replicability, objectivity). (8) CO1

OR

- 2 b) Distinguish between Primary and Secondary sources in a literature review, providing two examples of each (e.g., patents, monographs). (8) CO1

Question No. 3

- 3 a) Explain the core philosophy and objective of the Taguchi Method in the context of design of experiments (DOE). (7) CO2

Question No. 4

- 4 a) Describe and compare three distinct types of probability sampling designs (e.g., Simple Random, Stratified, Cluster). (8) CO2

OR

- 4 b) Differentiate between Qualitative Data and Quantitative Data. (8) CO2

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