

Ph.D. Entrance Test Syllabus for Ph.D. in Design

The PET (Ph.D. Entrance test) for Ph.D. in Design consist of two parts:

- Part I: Research Methodology (50 marks) and
- Part II: Design Specific (Related to the branch for 50 marks)

Total Marks for PhD Entrance Test: 100 Marks

SYLLABUS

PART I: Research Methodology (50 Marks)

UNIT I: Research Problem

Meaning of research problem, Sources of research problem, Criteria / Characteristics of A Good Research Problem, Errors in Selecting A Research Problem, Scope, and Objectives of Research Problem.

UNIT-II: A Design Research Methodology

Introduction, Methodological Framework, Types of Research Within the DRM Framework, Types of Research Within the DRM Framework: Graphical Representation, From Reference Model to Impact Model, Success Criteria and Measurable Success Criteria, Research Clarification Process, Descriptive Study, Prescriptive Study, Comparison with Other Methodologies

UNIT III: Research Classification

Identifying Overall Topic of Interest, Clarifying Current Understanding and Expectations, Clarifying Criteria, Main Questions and Hypotheses, Research Questions and Hypotheses, Selecting Type of Research, Formulating Overall Research Plan, General Guidelines on Doing Research

UNIT IV Report Writing

General Guidelines of report preparation.

References:

1. "Research methodology: an introduction for science & engineering students", by Stuart Melville and Wayne Goddard
2. "DRM, a Design Research Methodology" by Lucienne T.M. Blessing and Amaresh Chakrabarti
3. "Research Methodology: Methods and Trends", by Dr. C. R. Kothari
4. "Research Methodology: An Introduction" by Wayne Goddard and Stuart Melville
5. "Research Methodology: A Step by Step Guide for Beginners", by Ranjit Kumar, 2nd Edition.

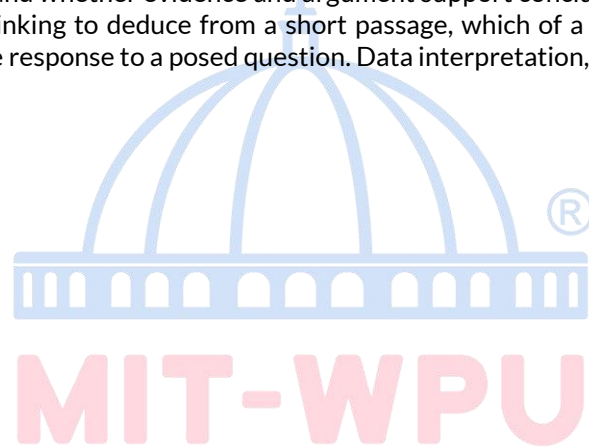
PART II: Subject Specific Ph.D. in Design (50 Marks)

UNIT I

- **Visualization and Spatial Ability:** Pictorial and diagrammatic questions to test understanding of transformation and/or manipulation of 2D shapes and 3D objects and their spatial relationships, knowledge of practical and everyday mechanical and scientific concepts.
- **Observation and Design Sensitivity:** Ability to detect concealed properties in ordinary things, people, situations, and events, and thinking critically about them. Applying attention to certain details, analysing, reasoning, classifying, inferring, and predicting. Ability to discern subtle differences in visual properties and aesthetic outcomes.

UNIT II

- **Environmental and Social Awareness:** General awareness of environmental factors such as climate, population, water, vegetation, pollution, weather, natural resources etc., and their implications on the design of products, images, infrastructure, and environment. Awareness of social and cultural connection with design, history of the designed artefact, and socially responsible and environmentally sustainable design responses. History of art, sculpture, and literature.
- **Analytical and Logical Reasoning:** Ability to look at information, be it qualitative or quantitative in nature, and discern patterns within the information. Ability to weigh opinions, arguments, or solutions against appropriate criteria. Ability to check for hidden bias or hidden assumptions and whether evidence and argument support conclusions. Ability to use logic and structured thinking to deduce from a short passage, which of a number of statements is the most accurate response to a posed question. Data interpretation, brainteasers, and patterns.



॥ विद्यया शान्तिर्ध्रुवं ध्रुवा ॥

UNIT III

- **Language and Creativity:** Ability to understand and use Standard English. Reading comprehension, knowledge of English grammar. Ability to think creatively in terms of alternatives, ability to distinguish innovative options and to think out-of-the-box.
- **Design Thinking and Problem Solving:** Ability to use visual analogies, metaphors, signs, and symbols. Ability to understand complexity, identify problems, generate alternatives, evaluate options, and select solutions.

Reference Books

Books related to Comprehensive English for NID, NIFT, UCEED, CEED, NATA, B.Arch & Other Design Entrance Exams. Quantitative Aptitude books, Verbal and Non-Verbal Reasoning.

