

SAMPLE PAPERS
DIPLOMA FIFTH SEMESTER EXAMINATION 2025 (JUT)
DESIGN THINKING
DIPLOMA WALLAH

[CLICK HERE TO VISIT DIPLOMA WALLAH WEBSITE](#) (MADE WITH ❤ BY SANGAM)

Full Marks: 70 marks | Time: 3 Hours

Instructions:

- Question No. 1 is compulsory.
 - Answer any **FOUR** questions from the remaining (Q.2 to Q. 7 marks).
-

Q.1 Multiple Choice Questions (Compulsory)

(7 Questions × 2 Marks = 14 Marks)

1. Which rule states that "we cannot eliminate all unknowns" and must be comfortable with them?
 - A) The Human Rule
 - B) The Tangibility Rule
 - C) The Ambiguity Rule
 - D) The Re-design Rule
2. The "Desirability" criteria in Design Thinking asks:
 - A) Is it technically possible?
 - B) Does it make financial sense?
 - C) Does the user actually want it?
 - D) Is it legal?
3. In the "Define" stage of the Design Thinking framework, the primary output is:
 - A) A prototype
 - B) A Problem Statement (Insight)
 - C) A marketing plan
 - D) A raw dataset
4. "Innovation Heuristics" are best described as:
 - A) strict laws of physics
 - B) rules-of-thumb to guide the search for novel solutions

- C) financial auditing tools
- D) software coding standards
- 5. Which diagram uses quadrants to categorize what a user Says, Thinks, Does, and Feels?
 - A) Affinity Diagram
 - B) Mind Map
 - C) Journey Map
 - D) Empathy Map
- 6. The concept of "Fail fast, learn faster" is most closely associated with:
 - A) Experimentation and Prototyping
 - B) Final Production
 - C) Accounting
 - D) Traditional manufacturing
- 7. In Design Thinking, a "Cross-functional team" implies:
 - A) Everyone has the same skill set
 - B) Members come from diverse backgrounds and skills
 - C) The team works in different buildings
 - D) No leadership is required

Q.2

- (A) Elaborate on the Design Thinking Frameworks used in the industry. Explain the complete process flow. (7 Marks)
- (B) Explain the process of Listening and Empathizing in Design Thinking. Describe the difference between the Structured and Open-Ended Approach. (7 Marks)

Q.3

- (A) Define and explain the practical application of Empathy Map, Affinity Diagram, and Journey Map. (7 Marks)
- (B) What are Ideation Tools? Explain the techniques of Brainstorming and Innovation Heuristics in detail. (7 Marks)

Q.4

- (A) Define Design Thinking and explain in detail the Principles of Design Thinking. (7 Marks)
- (B) Explain the Basis for Design Thinking. Discuss the essential Design Thinking Skills required. (7 Marks)

Q.5

- (A) Explain the role of Storytelling in communicating innovation concepts. Describe the process of Scenario Planning. (7 Marks)

(B) What is meant by Systemic Inspiration and why is it essential for a Design Thinking mindset? (7 Marks)

Q.6

(A) Explain the core function and output of Frog Design (in the context of prototyping). (7 Marks)

(B) How can frameworks be applied to strengthen communication and sustain a culture of innovation within an organization? (7 Marks)

Q.7 Short Notes (Answer Any FOUR)

(4 × 3.5 Marks = 14 Marks)

A) Improvisation in Storytelling

B) Mind Map

C) Behaviour Models

D) Combining ideas into complex innovation concepts

E) Evaluation Tools



SOLUTIONS: SAMPLE PAPER 3**Q.1 MCQ Answer Key**

1. **C** (The Ambiguity Rule)
2. **C** (Does the user actually want it?)
3. **B** (A Problem Statement)
4. **B** (Rules-of-thumb)
5. **D** (Empathy Map)
6. **A** (Experimentation and Prototyping)
7. **B** (Members come from diverse backgrounds and skills)

Theory Solutions (Hints/Model Content)**Q.2 (A) Frameworks:**

- 5 Stages: Empathize, Define, Ideate, Prototype, Test.

Q.2 (B) Listening:

- Initial discovery phase. Observation (Structured vs Open).

Q.3 (A) Maps:

- Visualizing attitudes (Empathy), Data relationships (Affinity), Processes (Journey).

Q.3 (B) Ideation:

- Brainstorming and Heuristics.

Q.4 (A) Principles:

- Human/Ambiguity/Re-design/Tangibility rules.

Q.4 (B) Basis/Skills:

- Basis: Feasibility/Viability/Desirability. Skills: Empathy, Optimism, etc.

Q.5 (A) Storytelling:

- Communicating context/emotion. Scenarios (Best/Worst/Likely).

Q.5 (B) Systemic Inspiration:

- New sources of ideas/models outside regular atmosphere.

Q.6 (A) Frog Design:

- Tangible prototyping to test assumptions.

Q.6 (B) Culture:

- Shared visual language, assessing bias, psychological safety for failure.

Q.7 Short Notes:

- (A) Quick iteration of narratives.
- (B) Hierarchical idea structuring.
- (C) Motivation + Ability + Trigger (Fogg).

- (D) Pattern recognition via maps.
- (E) Testing solutions against Scenarios.

