

CBSE | DEPARTMENT OF SKILL EDUCATION

DESIGN THINKING & INNOVATION (SUBJECT CODE - 848)

BLUE-PRINT FOR SAMPLE QUESTION PAPER – 1 (PRACTICE PAPER-1) CLASS XII (SESSION 2024-2025)

Max. Time: 2 Hours

Max. Marks: 50

PART A - EMPLOYABILITY SKILLS (10 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	
1	Communication Skills - IV	1	1	2
2	Self-Management Skills - IV	2	1	3
3	ICT Skills - IV	1	1	2
4	Entrepreneurial Skills - IV	1	1	2
5	Green Skills - IV	1	1	2
TOTAL QUESTIONS		6	5	11
NO. OF QUESTIONS TO BE ANSWERED		Any 4	Any 3	07
TOTAL MARKS		1 x 4 = 4	2 x 3 = 6	10 MARKS

PART B - SUBJECT SPECIFIC SKILLS (40 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	4 MARKS EACH	
1	Introduction to Indian Knowledge System	2			2
2	Design for Personal Space	2		1	3
3	Design for Social Space	3	1		4
4	Design for Public Space	3	1	1	5
5	Capstone final Design Project Stage 1 – Observations and Analysis	3	1	1	5
6	Capstone final Design Project Stage 2 – Ideation and Alternate solution	3	1	1	5
7	Capstone final Design Project Stage 3 – Prototyping and Feedback	4	1	1	6
8	Capstone final Design Project Stage 4 – Presentation and Documentation	4	1	1	6
TOTAL QUESTIONS		24	6	6	36
NO. OF QUESTIONS TO BE ANSWERED		20	Any 4	Any 3	27
TOTAL MARKS		1 x 20 = 20	2 x 4 = 8	4 x 3 = 12	40 MARKS

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SAMPLE QUESTION PAPER - 1 (PRACTICE PAPER-1)

CLASS XII (SESSION 2024-2025)

Max. Time: 2 Hours

Max. Marks: 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **22 questions** in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (5 + 17 =) 22 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 05 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 17 questions.
 - ii. A candidate has to do 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.



SECTION A: OBJECTIVE TYPE QUESTIONS

Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	Self-motivation is important because i. It increases individual's energy and activity. ii. It directs an individual towards specific goals. iii. It results in initiation and persistence of specific activities. iv. It affects cognitive processes and learning strategies used for completing similar tasks. a). Only I b). Both i and ii c). i, iii and iv d). All of the above	1
ii.	For an entrepreneur, aversion to risk is: a) A failure b) An opportunity c) A psychological barrier d) An initiative	1
iii.	_____ is the command to select the entire worksheet: a) CTRL + O b) CTRL + A c) CTRL + C d) CTRL + Z	1
iv.	Which of the following factors influence personality? a) Genes b) Environmental setting c) Culture d) All of the above	1
v.	Which of these is a barrier to effective communication? a) Active listening b) Clarifying doubts c) Using appropriate body language d) Language barriers	1
vi.	What is the main goal of incorporating green skills into the workforce? a) To increase industrial production b) To reduce employment opportunities c) To address environmental challenges sustainably d) To focus solely on economic growth	1

Q. 2	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	In Design Thinking, ____ phase involves gathering user feedback on the prototypes you've created as well as obtaining a better understanding of your users. a. Prototype b. Test c. Ideate d. Empathize	1
ii.	Design thinking is a linear process? a. True b. False	1
iii.	Ravi is a software developer who works from home. He struggles with distractions and poor posture while working. He wants a workspace that promotes focus, comfort, and productivity. Which design considerations would best address Ravi's needs? a) Incorporating ergonomic furniture, soundproofing, and adjustable lighting. b) Using bright colors and decorative elements to add vibrancy.	1

	c) Minimizing the use of storage and keeping the area open. d) Designing a shared workspace to encourage collaboration.	
iv.	A company is creating a biodegradable packaging solution to reduce environmental impact. Which step in the design thinking process ensures the packaging aligns with sustainability goals? a) Researching materials and prototyping solutions that minimize waste. b) Ignoring the environmental impact to focus on aesthetics. c) Avoiding user feedback to save time. d) Designing without considering the life cycle of materials.	1
v.	User persons are created during which phase of design process a. Design stage b. Discover stage c. Develop stage d. None of the above	1
vi.	_____ Helps the design team and client to visualize and handle the design concept a. Define b. Ideate c. Empathize d. Prototype	1

Q. 3	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Human-centric design was re-interpreted as an acronym to mean a. Hear, Create, Deliver b. Hear, Create, Design c. Hold, Create, Deliver d. Hear, Compile, Deliver	1
ii.	Design Thinking process began with the following 3 steps: a. Understand - Improve – Apply b. Define – Ideate – Build c. Study – Solve – Create d. Understand – Ideate – Create	1
iii.	An agritech startup is creating a smart irrigation system for small-scale farmers. Which stage of design thinking involves testing the system with farmers? a) Prototyping b) Empathy c) Ideation d) Implementation	1
iv.	Design thinking has a. Nothing to do with graphic design b. Nothing to do with architectural design c. Very little to do with UI and UX design d. Everything to do with products that succeed.	1
v.	_____ is the way to narrow down the thoughts to reach at the final solution a. Convergent thinking b. Divergent thinking c. None of them d. Both of them	1
vi.	The goal of the prototype phase is a. To understand what component of your idea didn't work b. To understand what component of your idea worked c. Both of them d. None of them	1

Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	<p>What are the steps of Design Thinking Process?</p> <p>a. Understand > Draw > Ideate > Create > Test</p> <p>b. Empathize > Define > Ideate > Prototype > Test</p> <p>c. Empathize > Design > Implement > Produce > Test</p> <p>d. Understand > Define > Ideate > Produce > Try</p>	1
ii.	<p>Which of the following is right?</p> <p>a. Design sensibilities are a combination of design features, qualities and aesthetics.</p> <p>b. Empathy is to see no evil, hear no evil and speak no evil.</p> <p>c. Design sensibilities are complex feelings such as amenity, pleasantness, comfort, pleasure, etc.</p> <p>d. Empathy is seeing with your own eye, hearing with your own ear and feeling the pain with your own heart.</p> <p>e. a & d</p>	1
iii.	<p>A college is redesigning its website. Current students are the main users of the website. Which one of the below elements should definitely be on the website?</p> <p>a. College rules and regulations</p> <p>b. Information on faculty members</p> <p>c. Information about courses</p> <p>d. Alumni details</p>	1
iv.	<p>What is wrong with this product design?</p>  <p>a) The colour is too bright.</p> <p>b) It does not function as a chair should.</p> <p>c) It will not be comfortable for the user.</p> <p>d) The design is too unstable.</p>	1
v.	<p>What question did the designers forget to ask?</p>  <p>a. How many urinals are needed?</p> <p>b. How much space is needed per person?</p> <p>c. What will the toilet look like once the floor plan is complete?</p> <p>d. Where do they go?</p>	1

vi.	Identify the correct statement a. To derive the power of design thinking, individuals, teams, and organizations must have a leap of faith about the existence of a solution. b. Leap of faith is the page in the manual of design thinking containing the core philosophy about design thinking. c. Design thinking presupposes that some people are inherently creative and become successful in creative product development. The team should have at least one such person. d. None of the above.	1
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Q. 5	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Prototype should only be demonstrated and tested within the team a. True b. False	1
ii.	What element of User Experience Design would the design strategy fall under? a. Interaction Design b. Experience Strategy c. User Research d. Information Architecture	1
iii.	The ultimate goal of design thinking is to help you design better a. Services b. Products c. Experiences d. All of above	1
iv.	One term for observing and interviewing users where they live/work/play for the sake of design research is: a. Human factors b. Contextual inquiry c. Intercept interview d. Style scouting	1
v.	Anand and Mahesh work together to create a list of twenty things they could do to improve school lunches. Which stage are they on? a. Define Problem Statement b. Ideate c. Prototype d. Test	1
vi.	David is testing his prototype. What should his next move be? a. Ideate and come up with more ideas. b. Research the people he is designing for. c. Collect feedback from the testers to evaluate his idea. d. Change his problem statement.	1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

Q. 6	Write about advanced features that is used in digital presentation.	2
Q. 7	List any two points of importance of self-motivation.	2
Q. 8	Which of the qualities to be considered for successful entrepreneur?	2
Q. 9	What are long term goals?	2
Q. 10	Write four steps to insert a text box in a slide.	2

Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)

Q. 11	Define capstone project.	2
Q. 12	What is the use of Journey Map?	2
Q. 13	What type of prototypes should you start with in the initial stages?	2
Q. 14	How are design thinking and project management different?	2
Q. 15	State any two tools of Empathy?	2
Q. 16	Define Brainstorming? what are its principles and rules.	2

Answer any 3 out of the given 6 questions in 50– 80 words each (4 x 3 = 12 marks)

Q. 17	Think of two creative ways to use coconut shells. Also explain the design.	4
Q. 18	A tech startup is working on designing a new smartwatch that tracks physical activity, sleep, and stress levels. The team starts with a mind map to explore different features such as battery life, user interface, comfort, health metrics, and integration with other devices. The goal is to create a wearable that is both functional and fashionable. How can a mind map be used to guide the development of innovative features for the smartwatch, and what role does design thinking play in integrating these features effectively?	4
Q. 19	What are the various stages involved in design thinking from finding the problem to finding the solution? Explain with an example?	4
Q. 20	Explain the testing in design thinking? what is its purpose and importance	4
Q. 21	A school needs focused tablets to be given to its pupils. Give general steps of design thinking for this.	4
Q. 22	What are the tools involved in design thinking?	4