

QUESTION PAPERS FOR END TERM THEORY
EXAMINATIONS
MAY-2025



B.Tech, B.Tech (Evening), B.Design,
2nd, 4th, 6th & 8th SEMESTER

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II SEMESTER
B.DES

END TERM EXAMINATION

May-2025

COURSE CODE: DD102

COURSE TITLE: Design Methodology and Methods

Time: 4:00 Hours

Max. Marks: 40 Marks

Note : Attempt all the questions Question.
Assume suitable missing data, if any.

Q1. You are designing a carry bag for daily vegetable vendors who walk long distances and often have no storage space.

- How would you apply ethnographic research to understand their needs?
- Create a user persona for one type of user based on your understanding.

(10 Marks)(BTL6)

Or

A local museum is planning a new exhibit on Indian textiles. They want to ensure the experience is inclusive for visitors of all ages and abilities (e.g., children, elderly, visually impaired, hearing-impaired, wheelchair users). Apply the 7 principles of Universal Design to suggest improvements for exhibit layout, content delivery, and interactive displays. Support your answer with relevant examples or sketches of how you would make the experience universally accessible.

(10 Marks)(BTL6)

Q2. Choose any one of the following users:

- A college student attending hybrid classes.
- A first-time user of a digital banking app.

Map their user journey for one specific task and highlight at least 3 major pain points they might face. Suggest one design solution for each pain point.

(10 Marks)(BTL6)

Or

Q3. A municipal corporation wants to redesign public water dispensers in crowded urban areas to make them more usable for all types of users, including children, elderly people, and people with disabilities. Using the Human-Centered Design process, describe how you would approach this challenge. Outline the steps you would take from user research to prototyping and iteration, ensuring the design addresses real user needs.

(10 Marks)(BTL6)

Q3. Using the Double Diamond model or the Design Thinking approach, explain how you would design a solution to improve public transport experience for differently-abled individuals. Highlight each stage (Define, Ideate, Prototype, Deliver) with 1-2 points or examples.

(10 Marks)(BTL6)

Or

Q3. You are designing a community kitchen space in a flood-prone rural village where people of different backgrounds and ages will cook, eat, and store food. Apply the Design Thinking process to solve this problem. Use methods like empathy mapping, brainstorming, prototyping, and journey mapping to explain how you will understand user needs, define the problem, generate ideas, and test your solution.

(10 Marks)(BTL6)

Q4. You are tasked with designing a reusable water bottle for school children aged 6-10 years. Explain how you would apply the stages of design (Define, Ideate, Prototype, Deliver) to create a final product. Include what tools or methods (like sketching, mock-ups, feedback, etc.) you might use at each stage.

(10 Marks)(BTL6)

Or

Q4. You are part of a design team working for a wearable technology company. The company wants to release a fitness tracking wristband for teenagers, but user preferences are constantly evolving due to new trends, tech, and fashion. Explain how the Agile methodology can help manage this dynamic design scenario. Describe how you would apply Agile methods such as sprint planning, iteration, user feedback, and stand-up meetings to develop and deliver a relevant product.

(10 Marks)(BTL6)

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1st SEMESTER B.Des

END TERM EXAMINATION

May 2025

DD106 - Communication Studios and Semiotics

Time: 3Hrs

Max. Marks: 40

Note: Make suitable assumptions where necessary. Use of Computers and Internet is NOT allowed. Give Answer sheet + 2 A3 Sheets to each student. Q1, Q2, Q3 are compulsory. Do any one of Q4 or Q5.

Q1. Define the following terms along with an example (do any 5)

[5x1=5 Marks] L1,2, CO1,2,3,4

- a) Connotation
- b) Semantics
- c) Symbol
- d) Representation
- e) Abstraction
- f) Pragmatics

Q2. What is a Sign as explained by Saussure? Explain the different parts of a sign and the relationship between them. Also give an example to illustrate your answer.

[5 Marks]L2,3, CO2

Q3. List and explain the three different tendencies through which humans create Signs? Give an example for each and explain why they belong to each.

[5 Marks]L2,3 CO2

Q4.

a) Select any two distinct and powerful emotions (e.g., fear, joy, calm, urgency etc.). For each emotion, clearly discuss how you would use the following representational strategies to communicate effectively- Colors, Shapes, Typography, Signs/ Symbols

[5+5=10 Marks]L3,4, CO1,2,3,4

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b) Choose one emotion from the two discussed above and create a detailed, well-composed poster illustrating it on A3 sheet. Employ the strategies discussed in part (a). Be mindful of composition, visual impact, appropriate visual elements, originality and neat execution.

[15 Marks]L6,CO1,2,3,4

OR

Q5.

a) Reflect on the life of a design student and identify any two recurring emotional or cognitive states (e.g., excitement, frustration, confusion, curiosity, exhaustion, flow, etc.). Briefly describe how these states could be visually represented using: Colors, Body Language, Typography, and other Signs/Symbolic Elements in a sequential narrative.

[5+5=10 Marks]L3,4, CO1,2,3,4

b) Based on your reflection in part (a), create a comic strip or visual narrative titled "A Day in the Life of a Design Student." Use 8-12 frames to depict a sequence of events that effectively communicates key emotional shifts and experiences. Be mindful of coherence, creative use of semiotic strategies, visual storytelling, narrative and originality.

[15 Marks]L6,CO1,2,3,4

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2nd SEMESTER

B.Des.

END TERM EXAMINATION

May-2025

COURSE CODE: DD108

COURSE TITLE: Materials and Processes for Designers

Time: 04:00 Hours

Max. Marks: 40

Instructions to Candidates:

- Attempt any four questions.
- All questions carry equal marks (10 marks each).
- Use sketches, process diagrams, or examples to support your answers.
- Focus on design thinking, material-process understanding, and creative articulation.

Q1. Choose one natural material (wood, bamboo, jute, leather, cloth, or paper). Narrate its journey from raw form to finished product through craft and industrial processes. [10][BTL3]

- Include how the material is sourced, processed, and shaped
- Highlight how its natural properties influence its application
(Use annotated sketches to support your explanation)

Q2. You are tasked with designing a kitchen tool for a compact urban kitchen. [10][BTL3]

- a) Choose an appropriate material and
- b) A suitable manufacturing process for casting, moulding, forming, or machining is recommended.

Justify your choices in terms of:

- Material behaviour
- Production efficiency
- User experience

(Optional: Add a product sketch with labelled material & process choices)

Q3. Select any one product made from wood, metal, or plastic (e.g., a chair, utensil, or lamp). [10][BTL6]

- Describe two different finishing techniques applicable to that material
- Explain how each finish alters the product's functionality, durability, or user perception
(Use comparative illustrations or examples to enrich your response)

Q4. Reflect on a model or mock-up you created during your studio sessions using materials like foam, wire, mount board, or plaster of Paris. [10][BTL2]

- a) What were the material-specific challenges you encountered?
- b) How would you re-imagine the same form using industrial materials and processes?

(Include before/after sketches if relevant)

Q5. Choose a common product (e.g., plastic pen, ceramic mug, metal lamp). Propose a material swap using a more sustainable or unconventional material. [10][BTL6]

Explain:

- Why is the new material a better choice
- What process changes would be needed for manufacturing
- How would it impact form, function, or aesthetic
(Sketch the redesigned product if possible.)

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2nd SEMESTER B.Des

END TERM EXAMINATION

May 2025

DD110 - Computer-aided 3D visualization

Time: 03:00 Hours

Max. Marks: 40

Note: i) Students may download reference images from the internet for their work.
ii) Submit both the Blender screenshot and the rendered image on Google Classroom.
iii) A maximum delay of 10 minutes is allowed for uploading the images.
iv) Save your files in .jpeg and .mpeg formats with the filename format: "StudentName_RollNo_".
v) Google Classroom Codes — Section A: 3jkafkd, Section B: e7gw2qh
vi) Laptops are allowed during the task.
vii) The Blender project file may be requested later; ensure you save it securely on your system.

Q.1(a) Model a drawing room scene that includes at least two walls, a floor, and a window. The room should be furnished with a sofa set, a centre table, and decorative objects such as a wall hanging. The scene should show lighting coming from the window (natural light) and interior room lights. Render an image of the complete room. Write the steps involved and mention the tools used for modelling and rendering the scene. (Marking: Modelling 5, Light Setup 5, Material Render 5, Write-up 5) [CO4] [20] [BT4]

or

Q.1(b) Model a glass perfume bottle that includes a brand name featuring your initials (e.g., Name: Yug Rajput, Initials: YR). Render a photoshoot-style image of the perfume bottle using a three-point lighting setup and a gradient background. Write the steps involved and mention the tools used for modelling and rendering the scene. (Marking: Modelling 5, Light Setup 5, Material Render 5, Write-up 5) [CO3] [20] [BT3]

Q.2(a) Create a 5 to 10-second animation that first reveals a jewellery box by removing a silk cloth. Then, animate the opening of the velvet jewellery box to display a diamond in gold ring. Write the steps involved and mention the tools [CO3] [20] [BT4]

*used for modelling, animating, and rendering the scene.
(Marking: Modelling 5, Light Setup 5, Material Render 5,
Write-up 5)*

Or

- Q.2(b)** Create a 5 to 10-second animation showing the unwrapping of a brown corrugated carton box using armature animation to reveal a coffee mug inside. [CO2] [20]
[BT3]
Write the steps involved and mention the tools used for modelling, animating, and rendering the scene. (Marking: Modelling 5, Light Setup 5, Material Render 5, Write-up 5)

—End—

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IV SEMESTER
B.DES

END TERM EXAMINATION

May-2025

COURSE CODE: DD 202
COURSE TITLE: Cognitive Ergonomics

Time: 3:00 Hours

Max. Marks: 40 Marks

Note :

Attempt all Questions in A3 Sheets.

Assume any missing data.

Please read all questions before attempting the paper.

Q 1. Develop a game for experiencing multiple realities. Assume every Reality has contextual needs and requirements based on the player's mental and emotional situation. Give a diagrammatic representation of various levels.

[10 Marks]

Q 2. Sketch Game characters for living through these realities and describe the different powers that are required in traversing the above mentioned levels.

[10 marks]

Q 3. Show different operational scenarios and their complexities in dealing with multiple realities with context specific ideas.

[10 marks]

Q 4. How can Cognitive Ergonomics be used in decision making for choosing and operating in the various levels mentioned above?

[10 marks]

-END-

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4th SEMESTER B.Des

END TERM EXAMINATION

May 2025

DD206 - Colour, Context and Composition

Time: 03:00 Hours

Max. Marks: 40

Note: All questions carry equal marks.
Assume suitable missing data, if any.

- Q.1 What are HEX codes? Explain their structure, use, and advantages in digital design. Give three examples of HEX colour codes and the colours they represent. [CO1] [10] [BTL2]
- Q.2(a) Describe the successive contrast (afterimage effect) and explain the science behind how our eyes create complementary illusions. [CO2] [10] [BTL4]
- or
- Q.2(b) What is colour relativity as per Albers' theory? Support your explanation with an example or sketch showing how the same colour appears different on different backgrounds. [CO2] [10] [BTL4]
- Q.3(a) What is the difference between denotation and connotation according to Roland Barthes' theory of symbols? Explain with relevant design examples? [CO1] [10] [BTL3]
- or
- Q.3(b) Discuss the role of iconic, indexical, and symbolic signs in design using Charles Peirce's model. Support your answer with real-world applications. [CO1] [10] [BTL3]
- Q.4 Differentiate between the principles of "Figure/Ground" and "Multistability." How do these affect perception in graphic and interface design? [CO1] [10] [BTL2]

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4th SEMESTER

E.Des

END TERM EXAMINATION

May-2025

COURSE CODE: DD242a

**COURSE TITLE: Ethnographic Studies in Interaction
Design**

Time: 03:00 Hours

Max. Marks: 40

Note :

Attempt all questions.

Answer to be written on 2 Nos of A3 sheets.

Internet is allowed for Research.

Q.1

[10 Marks][CO 1][BTL 02]

Explain with an infographic how you collected data in various categories pertaining to SDGs that you have chosen.

Q.2

[10 Marks][CO 2][BTL 03]

Give details of the data collection methods used and how have you analysed and sorted them in quantitative or qualitative formats.

Q.3

[20 Marks][CO 3][BTL 04]

Sketch the network of interviews conducted based on data collection during field visits. The correlation between these interviews and identifying insights is the key highlight that needs to be addressed and shown here. Use your creative freedom in imagining and documenting the same.

-END-

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VI SEMESTER
B.Des

END TERM EXAMINATION

May 2025

COURSE CODE: DD302

COURSE TITLE: SUSTAINABLE DESIGN

Time: 03:00 Hours

Max. Marks: 40

Note: Attempt any four questions.

Each Question carry Ten marks.

Assume suitable missing data, if any.

Q 1: Many rural communities face challenges such as limited access to clean drinking water and affordable healthcare. How can frugal design principles be applied to develop low-cost, high-impact solutions for these challenges? Illustrate your answer with relevant examples. [CO4][BTL5,6]

Q 2: Kumbh Mela, one of the largest religious gatherings in India, generates enormous amounts of food waste, plastic waste, temporary housing materials, and sanitation waste. Analyze how the current linear economy practices contribute to environmental challenges during mega-events. Propose a circular economy framework to help manage waste, promote resource recovery, and improve sustainability at future Kumbh Melas. [CO3][BTL4,6]

Q 3: Discuss the concept of biomimicry. Discuss five examples of biomimicry used in product design and architecture. [CO2][BTL3,4]

Q 4: India generates a large amount of e-waste annually, much of which is in landfills. Apply the concept of Cradle-to-Grave lifecycle thinking to explain the challenges caused by improper e-waste disposal. How could a Cradle-to-Cradle model improve the situation? [CO2][BTL2,3]

Q 5: What are the future trends in sustainable design? How can designers and engineers stay up-to-date with emerging technologies and practices in sustainable design? [CO1][BTL2]

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VI Semester

B.Des

End Semester Exam

May-2025

DD322 Psychology and Behavior Science

MARKS:40

Duration: 3hrs

PHONE IS ALLOWED DURING EXAM

1. Explain how cognitive psychology principles (like attention, memory, and perception) influence user interaction with digital interfaces, with relevant examples. (10 Marks)(BTL4)
2. Explain how cognitive load theory and relevant psychological or behavioral science techniques (e.g. cognitive ease, social proof, FOMO, habit loops, nudges, etc.) are applied to enhance user experience, reduce friction, and drive engagement. Take any Brand/Company/Application in examples also map one simple process flow (Login/Buying/password reset etc) for explaining (20 Marks)(BTL6)
3. Discuss how users emotions and mental models impact their decision-making and overall experience while using a product, with suitable examples. (10 Marks)(BTL4)

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- a) what the tool made easy,
- b) what it made difficult,
- c) and how the tool shaped the kind of visuals you created.

Would you choose the same tool again for a similar project? Which other tools would you explore?

Q.4

[10 Marks][CO 2] [L3,4]

Describe a specific design element in a visualisation you created that may have been misunderstood or interpreted differently than you intended—either based on peer feedback or your own reflections. What caused the gap? How would you redesign that part today to reduce misinterpretation?

Q.5

[10 Marks][CO 3][L5]

Walk through your workflow: how did you go from raw data to final visualization in your mid-sem or end-sem project? Highlight one step whether data cleaning, transformation, sketching, prototyping, or iteration—that was particularly challenging or rewarding. What did you learn from that process?

Q.6

[10 Marks][CO 3][L5]

Pick another student's project (mid-sem or end-sem) that impressed you. Analyze one aspect of it—such as layout, visual hierarchy, interactivity, or storytelling—that you found effective. If you were to borrow an idea from this project, how would you adapt it to your own?

-END-

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VI SEMESTER

BSC. DESIGN

END TERM EXAMINATION

MAY: 2025

DD332 Photography 2

Time: 3 Hour

Max. Marks: 40

Note: All questions are compulsory.
All questions carry equal marks.
Assume suitable missing data, if any.

- Q.1 What is the role of lighting in photography provide with an example? [5][CO2,3]
- Q.2 Scenario: You're photographing a macro subject, such as a flower, & you want to capture its intricate details. Describe your camera settings & techniques for achieving a sharp, well-exposed image with a suitable depth of field? [10][CO4,5]
- Q.3 Explain the different types of photography genres (e.g., portrait, landscape, street, wildlife) and their unique characteristics? [15][CO1,6]
- Q.4 Discuss the importance of understanding the exposure triangle (aperture, shutter speed & ISO) in photography? Please explain with examples. [10][CO6]

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2nd SEMESTER **B.Des**

END TERM EXAMINATION

May-2025

DD334 - Visual Narratives and Storytelling

Time: 3 Hours

Max. Marks: 40

Note: Answer sheet + 2-3 A3 sheets to be given. Students can make suitable assumptions where necessary. No Internet Allowed

Read the story below and visually interpret it.

“There was a street where all the houses looked the same — grey walls, black gates, white doors. Except one. House number 17 had a red door. People walked past it every day. No one ever saw anyone enter or leave. Some said it was abandoned. Others said an artist lived inside. Children made up stories about it — ghosts, witches, treasure. One morning, a boy named Tom stopped and knocked. No one answered. He knocked again. The door creaked open. Inside, the walls were covered in drawings. Not paper drawings — drawings on the walls, the ceiling, even the floor. Cities upside-down. A tree growing from a teacup. Eyes that blinked when you looked away. Tom stayed for hours, just looking. When he left, he didn't say a word. But the next day, he painted his own door red. And soon, others did too.”

Q1. a) Visually narrate the story across 8 to 12 frames. You may choose to lay out your frames in sequence (comic-strip style), in a grid, or in a layout of your choice. Focus on key transitions: setting, curiosity, discovery, transformation, and impact. You will be assessed on Visualisation ability, Style and execution, Storytelling and overall Impact [30 Marks]CO1,2,3,4 L6,5,4

b) Include a short reflective note (150–200 words) on your visual choices and interpretation of the story (In the answersheet)

[5 Marks] CO2, L5,4

c) What do you think could be the central idea of the story. What could be a suitable title for the story. (In the answersheet)

[3+2 Marks] CO1,2 L4,3

Suggestion: Here's an example of the frame breakdown in 8 frames:

Establishing Shot, Contrast Frame, Curiosity – Tom pauses, knocks, and the door opens, Interior Transformation – The inside of the house with surreal drawings (creative explosion), Tom's Response, Change Begins, Ripple Effect, Closing Metaphor

This is just an example. You may interpret the frames in your own way—feel free to reinterpret, modify, add, or remove frames as needed to suit your storytelling.

—End—

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06_SEMESTER B.Des

END TERM EXAMINATION

May-2025

DD372 - FILM EDITING AND COMPOSTING

Time: 03:00 Hours

Max. Marks: 40

Note : Attempt only four questions. All Questions carry equal marks.
Assume suitable missing data, if any.

- Q.1 What is the main role of production design in a feature film?
[10M] [CO1] [L2]
- Q.2 How do visual elements like composition, lighting and colour work together to create a cohesive visual narrative in a film?
[10M] [CO1] [L3]
- Q.3 How does visual communication contribute to storytelling in a film and what are some techniques used to convey emotions or themes visually?
[10M] [CO4] [L3]
- Q.4 Which type of cut is used to show actions happening at the same time in different locations?
[10M] [CO3pp] [L4]
- Q.5 In what ways does the timing of cuts influence the pacing and emotional tone of a scene?
[10M] [CO5] [L1, L5]

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VI SEMESTER

B.Des.

END TERM EXAMINATION

May2025

DD376 Character Design

Time: 03:00 Hours

Max. Marks: 40

Note : Assume suitable missing data, if any.
Use sketches & illustrations to elaborate your answers.
Material: 01 Answer Booklet & 01 A3 Drawing sheet.

Q.1 Discuss in detail about your final submission character design project for the course. Elaborate on your research, storyline, design choices (colours/ storyboard design/ character traits), critical reasoning and execution of your project?

[20 Marks][CO3,4][BTL3,4]

Q.2 Identify examples of anthropomorphic characters in popular culture and explain how their anthropomorphic traits are expressed?

[10 Marks][CO2][BTL2]

Q.3 a) Explain how anthropomorphic traits can be used to develop a character's personality and backstory?

OR

b) Design an old man's/woman's character who is hungry and thirsty with an activity or an incident in one page comic. Elaborate on the backstory and your design choices?

[10 Marks][CO5,6][BTL5,6]