

**CLASS–XII**  
**ELECTIVE**  
**DESIGN & INNOVATION**  
**THEORY**

*Time: 3 Hours*

*Total: 100 Marks*  
*Theory: 60 Marks*  
*Practical: 40 Marks*

**Unit–1: Three Dimensional Design**

**10**

**Session–1: Introduction to Fundamentals of 3-Dimensional Design**

- Differentiate 2-dimensional and 3-dimensional design.
- Explore and apply the creative design process to 3D forms.
- Produce Sculpture using Three Dimensional.
- To apply creative design process to the development of 3-dimensional forms.

**Session–2: Three Dimensional Design Workshop**

**10**

- Project 1: 3D Design hand cutting tool.
- Project 2: 3D Design Maquette Construction.
- Project 3: 3D Design Bridge Design.
- Project 4: 3D Design Shop Refit.

**Unit–2: Three Dimensional Design Applied**

**15**

**Session–1: Introduction to Spatial Design**

- Principles and Elements of 3-D Design Applied.
- Research and apply techniques for application to spatial design.
- Explore the use of colour in 3-D Design.

**Session–2: Spatial Design Workshop**

- Project 1: Exploration and use of 3-D Elements of Design.
- Project 2: Colour Sphere Model to explore Hue and Value
- Project 3: To create a Exhibition Design on any theme; Examples part A: Unity, Harmony

### Unit–3: Design Tools and Techniques – Digital

10

#### Session–1: Introduction to 3-D Design Digital Tools

- Methods of developing 3-dimensional design.
- Brief study on software applications like Photoshop, AutoCAD, Flash, Corel and Maya

### Unit–4: Digital Workshop

15

- Apply techniques to produce digital images.
- Digitise images for reproduction.
- Project 1: Digital workshop Animorph.
- Project 2: Magazine Cover.
- Project 3: The World's Greatest Poster.

## LAB REQUIREMENT FOR TWENTY STUDENTS

S. No.	List of Items
1.	<b>Technical Drawing Equipment</b> <ul style="list-style-type: none"><li>• Computer station Licensed software (Autocad by Autodesk or Adobe Creative Suite CS6 or higher).</li><li>• Printer.</li><li>• Photography supplies, digital photo frame, access to photo printers.</li></ul>
2.	<b>Drawing Equipment and Materials</b> <ul style="list-style-type: none"><li>• Soft boards All around the walls.</li><li>• Stools.</li><li>• Black board.</li><li>• White board.</li><li>• Crayons, pastels, charcoal.</li><li>• Colored pencils, pens, washable markers, calligraphy pens, erasers.</li><li>• Variety of paper, cardboard.</li><li>• Dry-erase boards, markers.</li><li>• Chalk, chalk board, erasers.</li><li>• Non-toxic paint (tempera, acrylic, oil, water colour, finger paint).</li><li>• Colored ink, stamps, wood blocks, natural materials, cardboard.</li><li>• Paint brushes, rollers, squeeze bottles, spray bottles, sponges, paint scrapers.</li><li>• Glue, paste, glue sticks, pots, brushes, spreaders.</li><li>• Paper scraps, magazines, cards, wrapping paper, ribbon, cellophane, newspapers.</li><li>• Cardboard tubes, boxes, rolls.</li></ul>

- Pair of scissors.
- Staplers.
- Geometry sets.
- Paper punches.
- Clips, thumb tacks.
- Adhesive tapes, glue, craft glue.
- Sandpaper, cloth, string, wire.

