MARKING SCHEME
DESIGN & INNOVATION (772)-CLASS-XII
2018-19

Times: 3 Hrs.   **Marks: 60**

Ques. 1 Define the following Terms. (Do any 10 questions)

Ans.

(i) **2-Dimensional** – The objects that have only two dimensions, such as width and height but no thickness are 2-dimensinal

(ii) **Colour Theory** – Colour Theory in design is a set of principles used for working with colors that involves mixing colours, considering the visual effects of color, and creating pleasing color combinations.

(iii) **Asymmetrical balance** - Asymmetrical balance is a visual shape that looks visually balanced despite a lack of symmetry. Visual balance is most easily achieved with symmetry, a technique that uses mirror-like elements that are the same on opposite sides.

(iv) **3 Dimensional** - A three-dimensional object have 3rd dimension **Depth** apart from having Length (Height) and Breath (Width) and can be measured in three different directions (Height, Width & Depth).

(v) **Emphasis -** Emphasis is defined as an area or an object with in the artwork that draws attention and becomes the focal point of any visual object.

(vi) **Color and value** – It is defined as relative lightness or darkness of a color. It is an important tool for designers and artists to define forms and creating illusions.

(vii) **Repetition** – Reusing of same or similar elements to create some pattern or overall design. It brings sense of unity, consistency, and cohesiveness.

(viii) **Movement** – Movement in design is used to guide the viewer through the design objects or illustration.

(ix) **Unity** – Unity is used in design to unite various elements of design so that the composition does not become cluttered.

(x) **A tool that helps designers choosing color harmony is** Colour Wheel.

(xi) **A plane is** 2 dimensional.

(xii) **A cube is a set of** 3 Dimensional.

Ques.2 Define the terms "Design" and "Innovation"

Ans.

Design is defined as a process of developing purposeful and innovative solutions that are functional and aesthetic (desirable), viable (affordable) for the needs and affordability of its intended users/customers and can be produces (feasible). Design is also defined as a problem solving process and follows human-centered approach to ensure that the user remains the focus

1

of the design process. Design is applied in the development of products, appliances, furniture, packaging, software including (mobile applications), spaces and environments. There are many different discipline within design including Industrial/product design, furniture designer, interior designer, ceramic designer, graphic designer, packaging designer, fashion & textile designer, exhibition/space designer, user interface designer and service designers.

Innovation is defined as a process of translating an idea or invention into a product or service that creates value and for which customers will pay. For an innovation, an idea must be replicable at an economical cost and must satisfy a specific need. Innovation is also a process that involves multiple activities to uncover new ways to do things. New innovations can be realized with creativity. Creativity, the ability to generate novel and useful ideas, is the seed of innovation but unless it's applied and scaled it's still just an idea.

Ques. 3 What are the tools used in designing?

Ans.

Design tools are objects media or computer programs, which can be used by designers or artist to design any kind of 2D or 3D objects and facilitate the artist and designers in creating their artwork and design more creatively and efficiently. The design activities which are facilitated by the design tools include idea generation, visualization, expression, prototyping, realization and production. At different stages of design and art activities, different design tools are used to support these activities. Some of these design tools includes sketching, rendering and image editing software like Adobe Photoshop, Adobe Illustrator, Coral etc. some hardware tools for the same includes touch screen tablets, pen, stylus, digital pencils etc. For 2D and 3D modeling and visualization, tools like Autodesk AutoCAD, Autodesk Alias, Rhino etc. and Prototyping tools like and 3D printers etc. Some of the hardware tools include touch screen tablets, pen, stylus, digital pencils etc.

Traditionally, objects or tools like pencil, compass, ruler, drawing triangle, crayons, pastels, charcoal, pens, air brush, washable markers, calligraphy pens, erasers, variety of paper, cardboard, computer etc. have been considered design tools.

Ques.4 Which technique used for development of digital image?

Ans.

Following are the techniques used for the development of digital image:

Pixelation, It's a software technique used for turning printed images into digitized ones. As the image is captured, it is processed into a vectorized or rasterized file that can be used to illuminate color units called pixels on a display surface.

Image Editing, it is used for altering digital images by means of graphic software tools. Images produced by scanners, digital cameras or other image-capturing devices may be good, but not perfect. Image editing is done to create the best possible look for the images and also to improve the overall quality of the image according to different parameters.

Image Restoration, It involves extraction of a clean original image out of the corrupt image taken in order to get back the information lost.

Ques.5 Explain the fundamental of 3D design?

Ans.

Fundamental of 3D design are explained below:

1) Selecting objects

2) Transformation - Transforming objects typically refers to moving (translating), rotating, and scaling.

3) Object creation - Beyond the default objects in the scene, you can add new objects by 3D cursor. Although a nuisance in the beginning, the 3D Cursor (the red and white cross-hair looking thing) is a powerful piece of the Blender workflow. It enables more precise transformation of objects and mesh elements with greater control by using the 3D cursor as a pivot point.

4) Context - The reason this is important is your available tools and capabilities will change depending on which context mode you're in. For modeling, context refers primarily to Object Mode and Edit Mode: two different modes of working with mesh objects.

Ques.6 What is design Maquette construction and it use in design?

Ans.

Design Macquette Construction is a term from fine arts and refers to a small mock-up of a fully realized three-dimensional sculpture or architectural project. Maquettes are often used for competitions and exhibitions as well when building a full-scale model is impractical or impossible. And it's not just sculptors who use them as display tools; maquettes are also built by architecture students, as they try to depict their projects pre-construction. The practical uses of maquettes are most apparent when a commissioned work of sculpture is involved. If a particularly large or expensive sculpture is planned, using a maquette can help show how a piece will fit into its potential display space, and allow the person or group commissioning the work to get a three-dimensional glimpse of what they're paying for. It also saves money on materials, rather than build something large and expensive for a client.

Ques.7 What are Primary, Secondary and Territory Colours? Define them.

Ans.

Primary Colors: Red, yellow and blue

Primary colors are the 3 pigment colors that cannot be mixed or formed by any combination of other colors. All other colors are derived from these 3 hues.

Secondary Colors: Green, orange and purple

These are the colors formed by mixing the primary colors.

3

Tertiary Colors: Yellow-orange, red-orange, red-purple, blue-purple, blue-green & yellow-green

These are the colors formed by mixing a primary and a secondary color. That's why the hue is a two-word name, such as blue-green, red-violet, and yellow-orange.

Ques.8 Explain the difference between Flash and Corel software.

Ans.

Flash is a multimedia software platform used by designers and other professional for the production of rich internet applications which combines graphics, animation, videos, to be used in web platform, applications and gaming etc.

This includes many tools including **animator and Flash Player**. Flash Designer is a Web developer who creates animations; games and other rich content using **Flash** and ActionScript. Flash player is used for playing content created under flash platform. Adobe is developed by Adobe Inc..

Corel Draw is a vector based graphic editor used mainly by publishing industry and graphic designers for designing visual elements to be used for print purpose. Coral Draw is developed and marketed by the Coral Corporation. The other tools that are included with Corel draw are Bitmap image editor, Coral Photopaint for creating visual design artifacts such as books, brochure, flyers, banners, product graphics etc. Coral offers two sophisticated drawing programs: CorelDRAW for small business applications, and Corel DESIGNER for the technical illustrator.

Ques.9 Explain Design process to develop 3D forms.

Ans.

Creative Design process to develop 3D forms goes through the following steps:

   a) Identify and access relevant sources of information on 3-dimensional design
   b) Evaluate and collate information to build a knowledge of 3-dimensional design
   c) Identify and understand very clearly what the needs or what problem you are trying to solve of/for your targeted users/customers.
   d) Use creative thinking techniques like brainstorming, ideation etc. to generate a range of ideas and options to meet those needs or solve those problems.
   e) Use experimentation and evaluation to explore and challenge the generated ideas. Challenge assumptions, reflect on ideas and refine approaches.
   f) Investigate and reflect on how a particular concept or idea might be communicated in a 3-dimensional form.
   g) Apply a creative process to produce a range of 3-dimensional concepts.
   h) Visualize and create model (sketch/rendering) of your 3 dimensional concepts using pencil sketches or using some software and hardware tools like adobe illustrator, AuroCAD etc.

4

i) Select materials, tools and equipment relevant to the realisation of the concept or idea
j) Realise the 3D form using some tools like rapid prototyping or 3D printers
k) Take feedback from others about the 3-dimensional form and its success in communicating the concept or idea.
l) Present and store concept realisations or samples in a format, which takes account of the need for professional presentation and potential value for future work.

Ques.10 What is Spatial Design and techniques for the same?

Ans.

Spatial design is a relatively new and growing field that investigates the mutual relations between physical and social spaces (both interior and exterior) and the people. It is about the design of the spaces within buildings, within city streets, public spaces and service areas. It caters to this human flow, how the people use the spaces, and their experience within those spaces.

For a designer or an architect to engage in spatial design, it will be crucial for them to know how people actually live and to understand the societal agendas and the historical background behind the change of spaces, and it is fundamental to see the interior organisation and design in relation to the architecture, the city, the landscape, and society at large. Various domain of design including architecture, interior, visual design, experience design, landscape architect, and service designers as well as urban planners and public art people collaborate to work on spatial design. A good spatial design results into efficient homes, efficient and inclusive cities, efficient and collaborative public spaces, efficient flow of people, efficient interaction between people and spaces.

Ques.11 Differentiate between symmetric & asymmetric form.

Ans.

Whenever we distribute compositional elements evenly around a central point or axis, we'll make a symmetrical design. A good example of symmetry in nature is the butterfly; its right and left sides are highly similar to each other.
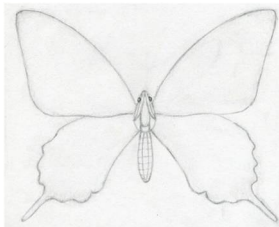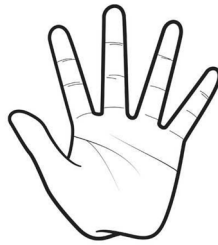

Symmetry

We find perfect symmetry when two mirrored sides are exactly the same. Poke a finger of your right hand up against the surface of your bathroom mirror, and look at it and its reflection from an angle. Assuming that our mirrors are clean, we'll always notice that the real right hand and its mirror image (which flips to look like a left hand) are perfectly symmetrical. Fortunately

5

symmetrical design does not depend on identical mirroring. It's only important to get close to the effect; exactitude is not necessary. Remember, you can manipulate the user's eye easily without worrying about geometric perfection as a consideration in your design.

Asymmetry is the absence of symmetry of any kind. Whenever we make a design that consists of elements that we've distributed unevenly around a central point or axis, we'll consequently have an asymmetrical design. We can exploit asymmetry, using it to draw attention to areas in the design or to convey dynamism or movement. Example of Asymmetry is

Asymmetry

Ques.12 Write a short note on the following:-

(a) **Photoshop**
(b) **AutoCAD**

Ans.

Photoshop - Photoshop software allows users to create and edit images, which includes manipulating, cropping, resizing, and colour correction etc. Photoshop files are made up of tiny squares of color called pixels. Using large pixels will make a grainy image, and using tiny pixels to make the same image will be much smoother. Photoshop software is particularly popular amongst professional photographers and graphic designers. Photoshop became integral to many diverse industries, including publishing, Web design, medicine, film, advertising, engineering, and architecture. Photoshop is a product by Adobe and is considered one of the leaders in photo editing software.

AutoCAD - CAD, or computer-aided design, is the use of computer technology for design and design documentation. CAD software replaces manual drafting with an automated process. AutoCAD is a computer-aided design (CAD) program developed and marketed by the Autodesk Inc. and it is used for 2-D and 3-D design and drafting by the designer, architects, as well as engineers. The first release of the software used only primitive entities such as polygons, circles, lines, arcs and text to construct complex objects. Later, it came to support custom objects through a C++ application-programming interface. The modern version of the software includes a full set of tools for solid modeling and 3-D. AutoCAD also supports numerous application program interfaces for automation and customization.

Ques.13 Explain why a package design is required for a product and its effect on the consumer?

Ans.

Package design for any product is required for the following purposes:

1. **Differentiates Brand From Others -** There are thousands of products on the market vying for your customers' attention. According to research, one-third of a consumer's decision making is based solely on product packaging. To succeed, your brand packaging has to stand out and look different from your competitors.

   a) **Packaging Color Sways Consumer Purchase Habits -** The colors used in a product packaging play a key role in consumer buying decisions. Your brain reacts to colors in different ways, so choose your packaging colors accordingly. For example, products with white packaging convey simplicity, safety and purity.

   b) **Product Packaging Is a Marketing Tool -** Product's packaging can be a helpful marketing tool through in-store advertising. Branded products are easily recognized, so designing packaging with your logo front and center helps consumers remember your product next time they are shopping.

   c) **Packaging Creates Brand Recognition -** Take a moment to think about some of your favorite brands. They all have one thing in common: they are memorable. Over the decades, brands like Coke have made minor changes to their packaging and stayed true to their original look. Keep in mind that recognizable brands should not change a thing because many successful brands that changed their logo, colors or packaging have seen a sort of backlash from shoppers after making a big change.

   d) **Consider eco-friendly options -** Packaging that's recyclable or reusable is always a reason for a consumer to choose your brand over your competitor's. In fact, 52 percent of people around the world make purchase decisions partially due to packaging that shows a brand making a positive social and environmental impact.

2. **Safety and protection of the product –** Safety and protection of the packaged is also very critical purpose of any packaging product through primary and secondary packaging. The designer should take into consideration the transportation; fall, movement, weight and longevity need of the product while designing the packaging.

Ques.14 Explain the Design Process?

Ans.

Design process includes the following basic five steps:

7
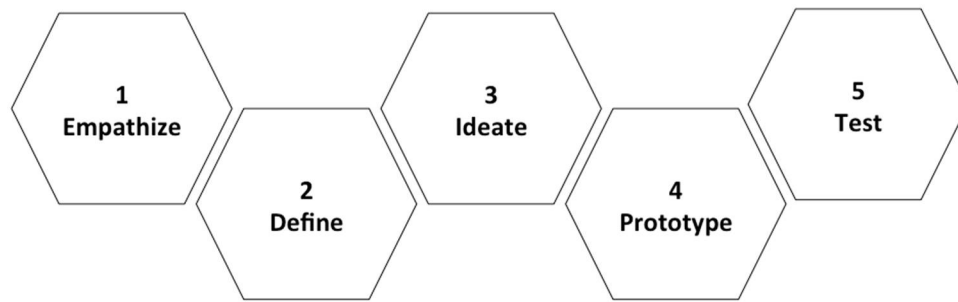
1. **Empathize:** Learn about and understand your targeted audience, their needs, challenges and limitations.

2. **Define:** Narrow down the problem you're addressing to a simple statement that is actionable.

3. **Ideate:** Brainstorm ideas and generate number of solutions related to your problem statement.

4. **Prototype:** Create mock-ups of your design that you can use to demonstrate your solution to your potential audience.

5. **Test:** Show your prototype to your targeted audience, gauge reactions, and refine design as necessary.

Ques.15 What is the use of design in today's scenario?

Ans.

Design is defined as a process of developing purposeful and innovative solutions that are functional and aesthetic (desirable), viable (affordable) for its intended users/customers and can be produces (feasible). Design is also defined as a problem solving process and follows human-centered approach to ensure that the user remains the focus of the design process.

Today our world is facing many challenges including business, environmental as well as social challenges like healthcare, poverty etc. Application of design tools and processes can help to generate innovative new ideas, improve business performance and help growth to overcome these challenges. A designer can explore new and different ways of turning your ideas into real products or services.

Design process allows us to look at these problems from much broader perspective with human centered approach. For example, when we think about the design of a chair, we consider both how it looks and how it feels to sit on. A well-designed office chair corrects the posture and enhances the productivity, while a well-designed living room chair lets the user lie back and relax, watch TV, or take a nap.

On the social front, the design can help in designing healthcare products and services, which are lower in, cost as well accessible. It can help in designing financial products and services for better financial inclusion for the unbanked population. It can help in creating sustainable products,

8

efficient use of material as well as manufacturing process to reduce the carbon footprint and better environment protection.

The value of good design is the increased possibility of success. The process of design can also help the business. Design can help businesses in innovating new product and services, re-designing the existing product to lower the cost as well as delivering higher value and customer experience leading them to compete better in this competitive world.

Ques.16 Design a poster in a 4"×6" on the any of the following topic:

      a. **World design day**
      b. **Child Labour**

Ans.

4x 6inch poster on a theme "World Design Day!
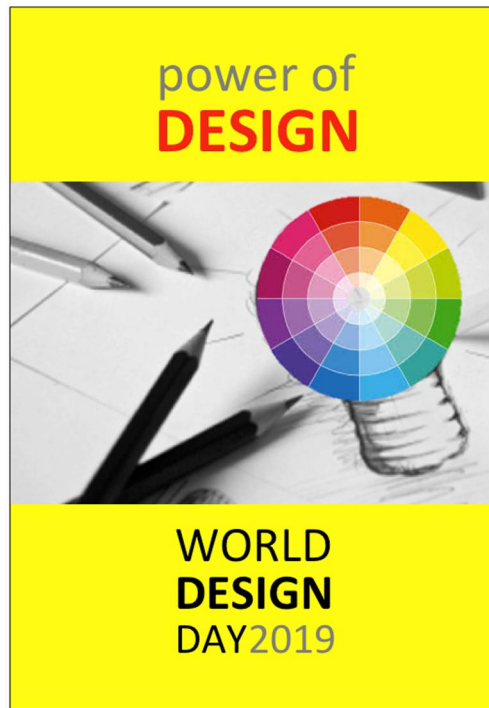
Ques.17 What is Colour harmony and why it is essential for a good design?

Ans .

Color harmony is absolutely essential to creating aesthetically pleasing art and design. Color harmony helps avoid any visual clutter or chaos and enhances the visual experience of the objects to its viewer. Understanding color theory including color wheel, primary, secondary and complementary colors is very essential to achieve any color harmony in their art work or design.

The key color is the main color that you choose for your artwork. It could be a primary, secondary, or tertiary color, but it is the one that you want to accent or focus on throughout your piece. Examples include a blue sky, a green forest, or an orangey-red volcano. Once you have

9

              Courtesy : CBSE

identified your key color, it is easy to identify harmonious colors using a color wheel and various recommended schemes provided below:

Complementary: Complementary colors are directly opposite each other on the wheel. They are visually arresting, but can be jarring, so it is best to use them sparingly for an accent or pop.

Analogous: Analogous colors are located on either side of the key color along the color wheel. They tend to represent color schemes that are found in nature, and are visually serene. However, overuse of analogous colors can make your painting seem monochromatic, so avoid too much reliance on them unless that is the feel you are aiming for.

Split-Complementary: Split-complementary color schemes use the key color with the colors on either side of its complement, rather than the complementary color itself. This is a safer choice than complementary colors for beginning artists, because it provides much of the same effect without the harshness of a true complementary scheme.

Color Temperatures - The warm colors are on the red, yellow, and orange side of the color wheel. They are fiery, intense, and energetic. The cool colors are on the blue, purple, and green side of the wheel. They are watery, soothing, and calm. When planning your color scheme, consider the mood that you want your painting to evoke, and choose a blend of temperatures that reflect that mood. Black, white, and grey are neutral temperature colors.

Shades, Tints, and Tones - Shades, tints, and tones should also be taken into account when planning your color scheme. Shades are created by adding black to the original hue. Tints are created when white is added, while adding grey creates tones.
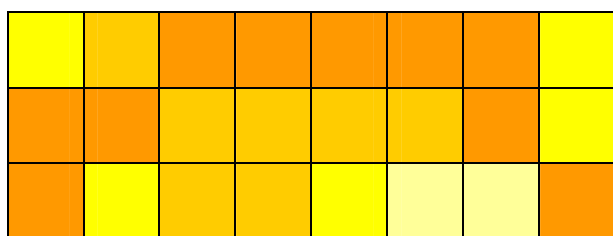
Ques.18 Create any of the following theme by applying colour on a grid of 4 x 4 inch.

        I.   Spring
       II.   Winer
     III.   Summer
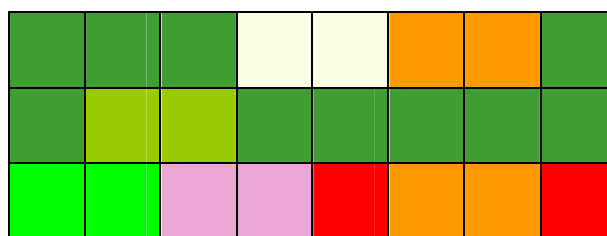   IV.   Vegetable & Fruit Market

Ans.

Grid of 4 x 4 inch filled with colour for theme "Summer" and "Vegetable & Fruit Market" are provided below:
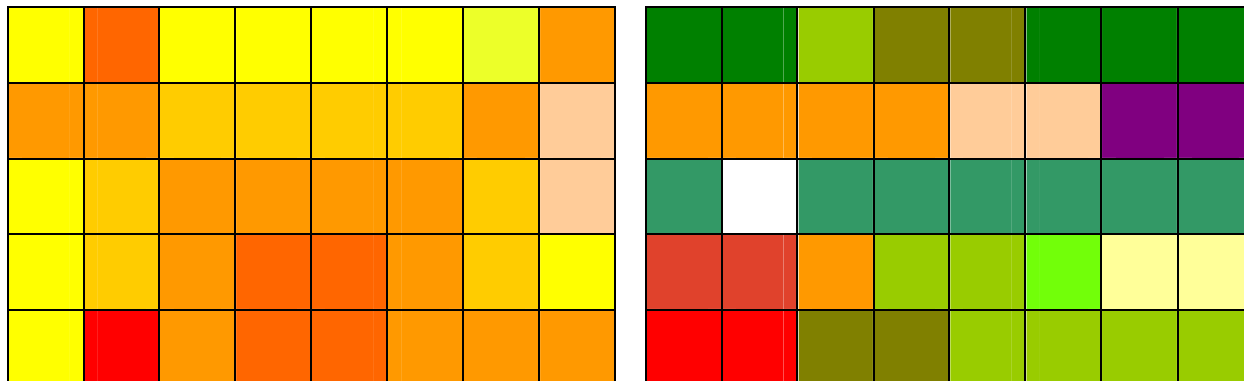
Theme "Summer"

Theme "Vegetable and fruit Market"

Ques.19 Differenciate between 2 diamentional & 3 diamentional forms and draw an image of a Alarm Clock or a Mobile Phone in a 2d and 3d form.

Ans.

The most fundamental difference between the 2D and 3D forms is that the 2D is flat and has only 2 dimensions while 3D design allows for depth and rotation. The difference in detail is discussed below:

2D design involves purposeful decision-making about using the elements and principles of drawing in an integrative manner. In 2-D design, understanding of design principles is demonstrated as applied to a two-dimensional surface. These designs articulate the principles of design, such as unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale and figure/ground relationship, through a range of visual elements, including line, shape, color, value, texture and space. Example of 2D Design includes posters, logos, brochure, banners etc.

3D design addresses engagement with physical space and materials. In 3-D design, the designer demonstrates understanding of design principles that relate to depth and space and articulates the same principles of design utilized in 2-D design (unity, balance, etc.) with visual elements such as mass, volume, color/light, form, plane, line and texture. These issues are explored through additive, subtractive and/or fabrication processes. Examples of 3-D design approaches include, but are not limited to, figurative or non-figurative sculpture, architectural models, metal work, ceramics, 3-D fiber arts/fashion and jewelry or other forms of body adornment.

The 2d and 3d form of an alarm clock is drawn below:

2D form of a Clock   3D form of a Clock

Ques.20 Explain the methods of developing 3-D designs.

Ans.

11

In 3-D design, a designer uses all three axes (x, y and z) to interpret and develop a realistic figure of the desired object. Almost all 3-D design methods incorporate four fundamental processes while interpreting an object electronically in its three dimensions: modeling, layout designing, animation and rendering. Modeling in 3-D designs is referred to the interpretation and development of basic object shape, while layout designing deals with the placement of an object within a suitable background. Similarly, the process of animation deals with any movement or motion associated with the object, and rendering defines angling and positioning of the light source within the design. Following are some of the techniques used in 3D Modeling:

- **Contour/Edge modeling**

   In Edge modeling the modelers develop the model piece by piece, instead of refining a primitive shape. This is done by placing the loops of polygons along the outlines and filling the gaps that lie between them. This process is applied, as it is difficult to complete certain meshes through box modeling. For instance, the human face cannot be completed only through box modeling. You can collaborate with one of the reputed modeling companies to get these models designed. The experts carry out the 3D modeling process with dexterity and develop the desired models.

- **Digital sculpting**

   Digital sculpting (also called 3D sculpting) is when an artist sculpts a 3D object on a computer with material similar to digitized clay. Software with brushes and tools that push, pull, pinch and smooth make it easy to create detailed sculpts that mimic real life textures and objects. The automobile industry has been using this technique while designing the cars etc. and has integrated these technologies into the product development and marketing strategies. Digital sculpting is a type of disruptive technology, and it has leveraged the 3D modeling process to a great extent.

- **Image-based modeling**

   In image-based modeling, 3D objects are derived algorithmically from a set of 2D images, that are static in nature. This type of modeling is used in cases, where the modeler faces budgetary or time restrictions, and are not able to develop fully realized 3D images. This is one of the most common type of 3D modeling in the film industry. Over the years, image-based modeling is increasingly being used in the entertainment industry.

- **Surface modeling**

   Surface modeling helps in creating a 3D spline. The process involves the incorporation of a 2D spline, and it is different from NURBS. This modeling technique is primarily used to generate organic 3D models in films. It offers a good amount of flexibility to the modelers. They can easily create a 3D representation with various requirements, using geometric entities like curves or surfaces.

Ques.21 Explain the basic elements and principles of design.

Ans.

The elements and principles of design explained below:

Line - Line suggest motion or movement to get from point "A" to point "B". Lines are versatile, simple and effective graphic elements that designer and artist use for expressing some information or emotion. For example,

_____ A straight line can evoke order and neatness

∿∿∿∿∿∿∿ A wavy line can create movement

⋀⋀⋀⋀ A zig-zagged line can imply tension or excitement

Colour - Typically known as hue and represents a specific color or light wavelength found in the color spectrum, ranging circularly from red to yellow, green, blue and back to red. Colour creates specific moods, atmospheres, channels emotions and each shade has certain specific connotations associated with it.

Texture - A technique used in two-dimensional design to replicate three-dimensional surfaces through various drawing and media techniques. Texture can add tactility to a 2 dimensional design, depth and can add some pretty interesting effects to your design.

Shapes - Shapes can be created by enclosing line, or by color and value changes, which define edges. Form and shape can be described as either **organic** or **geometric** for example:
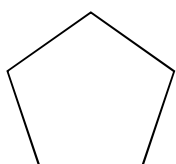
Inorganic (geometrical) shape   AND
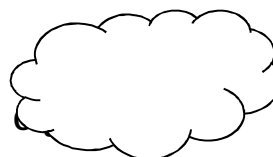
Positive and Negative Space - Positive space (in Black below) and Negative Space (in White below) are used by designers to design logo and images as shown below:

Negative Space

Positive Space

13
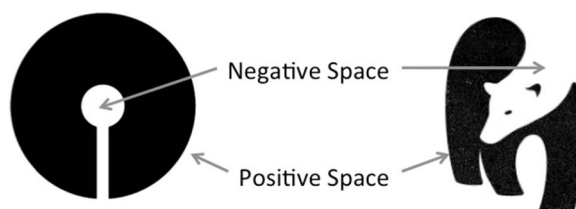
Type - Also known as typography and it is basically visual component of the written word. It involves selecting typefaces (fonts), size, line length, letter spacing and adjusting the space between pairs of letters to make written language legible, readable and appealing. The graphic designers use it for creating branding, communicating information.

Scale - Scale is the deliberate sizing of individual elements. Scale helps us make sense of things. But, scale doesn't always have to be based on realism. Designer can size the elements dramatically large or small to create stunning effects as well as creating hierarchy to signal, which parts of design are more important and which are less.

Balance - The elements of design converge to create a design or arrangement of parts that appear to be a whole with equalibrium.

Contrast - Contrast is the degree of difference between two elements of your design. Some common forms of contrast are dark vs. light, thick vs. thin, large vs. small, etc. It can be emphasized with contrast in size, shape, color, texture, etc.

Movement - Also known as motion. This element portrays the act or process of changing place or direction, orientation, and/or position through the visual illustration of starting or stopping points, blurring of action, etc.

Repetition/Rhythm - A recurrence or repetition of one or more elements within a visual format, creating harmony.

Proportion – The relative size of different elements of an artwork. An example is the exaggerated proportions in caricatures.

Emphasis - Also known as dominance. This condition exists when an element or elements within a visual format contain a hierarchy of visual importance.

Direction - Utilizing movement to create the visual illusion of displacement.

Unity - "Oneness," "Harmony," "Gestalt." The condition of completeness with the use of all visual elements within a format.

Ques. 22 Define shop Refit and the importance of it in designing.

Ans.

Shop Refit – A shop or store looking as up to date as possible is a key factor in running a successful business. Even a simple refit of the shelving and fixtures can do wonders for a shop or a store and will impress the customers. Shop refit can be defined as to make or be made ready for use again by repairing, re-equipping, or resupplying for further use and deliver efficient and relaxed shopping experience to their customers as a well the efficiency to the staff. Factors that should be consideration while designing or executing store or shop refit includes following:

Shoppers Feel Relaxed in Familiar Settings: When clothing, athletic equipment, bikes, car accessories or specialty food items are displayed creatively in cozy, creative setups that mirror a corner of a home entertainment room, den or outdoor grilling area, customers are immediately

14

reminded of how much they will enjoy using this item in their daily lives. Because it prompts them to think right away of familiar and comfy home settings, the garment, bike, car seat cushion, laptop or digital tablet becomes even more appealing than at first glance.

Creative Displays Capture Customers' Attention: The products sell best when showcased in creative, cozy display settings that feature the merchandise in familiar, yet enticing or appealing store displays. Expert shop fitters know that the latest reclining easy chair or sleek, glass-top bar cart will sell at much better rates when displayed in a cozy, colorfully decorated corner of the store that reminds buyers of a room at home rather than when mounted on a plain countertop in the middle of the store. Even iPhones, tablets and new laptop models will sell best when shown in appealing, well-lit glass showcases for clear viewing by customers. Either warm or cool hues for showcase backgrounds or shelving surfaces will attract and capture more buyers for displayed items.

Easy navigation, identification helps the customers shopping experience and efficiency: The designer or shop fitter must ensure that there should be proper signage and mapping is provided with in the store for better navigation and flow. The products are properly grouped and identification as well as other information such as price/offer etc. should be easily readable. The access to the product should take into consideration the ergonomics and human factors consideration. Visual clutter should be avoided and colours should be used not only to enhance the visual experience but also in navigation and finding/locating the products.