

KATHMANDU UNIVERSITY
End Semester Examination
June/July, 2023

Marks Scored:

Level : B.E.

Year : I

Exam Roll No. :

Time: 30 mins.

Course : MEEG 126

Semester : I

F. M. : 10

Date

14 JUL 2023

Registration No.:

SECTION "A"

[20Q. × 0.5 = 10 marks]

Encircle the appropriate option from the given choices.

1. It is considered as completely opposite process of modelling.
a. Developing b. Building c. Prototyping d. Carving
2. The qualities which make a design attractive to look at or pleasing to experience, determine its aesthetic appeal.
a. Elements b. Principles c. Appearance d. Functions
3. Light reflected or absorbed off objects which stand out or attract someone's eye is colour.
a. Elements b. Principles c. Aesthetics d. Functions
4. 'Accepted' styles influenced by some people's ideas of what is 'good design'.
a. Environmental influences b. Media influences
c. Education d. Fashion
5. A soft pencil will make darker line than a hard pencil.
a. 'H' b. 'B' c. 'HB' d. 'HD'
6. You're now ready to make the product – this is sometimes called realization.
a. Design b. Plan c. Drawing d. Prototype
7. It could be one dimension and it also differ in width, length and direction.
a. Shape b. Form c. Texture d. Line
8. It is not uncommon for a design to be symmetrical in one plane, and asymmetrical in another.
a. Contrast b. Pattern c. Balance d. Value
9. Tactile Texture refers real feeling of the surface.
a. Physical b. Artificial c. Developed d. Illusionary
10. The idea of repetition can be developed into tessellations, which are shapes or forms which 'interlock' within the design.
a. Value b. Texture c. Pattern d. Contrast

Tick right [✓] or wrong [×] on following.

11. Once a problem is fully understood, the next step is to write a design brief.

[]

12. A form is enclosed by lines. []
13. Prototyping involves building, testing and modifying the design to try to satisfy the specification. []
14. Usually, carving is defined as a subtractive process of creating a form of any objects from a solid wood, stone or other hard materials. []
15. By adding either black or white to a colour, we can change its tone. []
16. We see texture when light strikes, and its reflected form, a material's surface. []
17. The process of analyzing a situation will not help to sort out in your mind exactly what the problem is. []
18. When you sit down to work, make sure that the light comes from your left if you're left-handed and from your right if you're right-handed. []
19. When the elements of visual design are 'same' on either side of an imaginary central line, the design is said to be informal balance. []
20. Once the problem is fully understood, the next step is to prepare the final drawings. []

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Level : B.E.
Year : I
Time : 2 hrs. 30 mins.

Course : MEEG 126
Semester : I
F. M. : 40

SECTION "B"

[6Q. × 4 = 24 marks]

Write short notes on (*ANY SIX*):

1. Product Drawing
2. Function
3. Pattern
4. Monochrome Drawing
5. Shape
6. Colour Tone
7. Proportion

SECTION "C"

[2Q. × 8 = 16 marks]

Attempt *ANY TWO* questions.

8. Discuss the theory of balance as a design principle in mechanical engineering and its application for achieving aesthetics in design. Provide examples and elaborate on the types of balance with importance in creating visually appealing and functional mechanical systems.
9. Design Studio is an integral part of the mechanical engineering discipline, providing design engineers with hands-on experience in designing and prototyping mechanical systems. Discuss the importance of Design Studio in the education and training of mechanical engineers with its technical drawing plan.
10. You have been assigned the task of creating a product drawing for a consumer product. The product may any that you feel comfortable to visualize through your hand-skill. Your task is to create an accurate and comprehensive monochrome drawing with real 3D effects based on geometric forms.