

Subject - Design Thinking Laboratory

Name - Shreerang Mhatre

Rollno - 111056

Division - 11

Batch - K3

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Practical No. 1

(Q1) In your opinion what is Design?

Ans → Design is to pull together something new or to arrange existing things in a new way to satisfy a recognized need of society. For me Design is to open my mind and apply creative and innovative ideas to a particular field and to enhance the looks, aesthetics and beauty of that field.

(Q2) How can we say that the design is a multidisciplinary task?

Ans → ① Multidisciplinary design is when different design disciplines are used together or when design reaches beyond its borders to other fields in order to enhance the way it solves a problem, or think laterally about how it can.

② Technology and data are two examples of practices that provide many new ways of approaching old problems.

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(Q3) If you consider a product or a system, what are the parameters on which you can say that it is a good design?

Ans→ The parameters of a good design -

- ① Achievement of performance requirements -
- ② The service conditions under which the product must operate.
- ③ Filling the environmental requirements.

② Life-cycle issues -

The total life cycle of a part starts with the conception of a need and ends with the retirement and disposal of the product.

③ Regulatory and social issues:

- ① The standards produced by such societies as ASTM and ASME represent voluntary agreement among many elements of industry.

(Q4) what is the role of innovation and research in design?

Ans→ Design tools and processes can generate innovative new ideas, improve business performance and help growth. And by doing a research, which focuses on what your customers need and want and implementing with innovative ideas can play a important role in design.

Q5) what are the required quantities of a Design Engineer?

Ans → The quantities of a Design Engineer are -

- ① Innovative approach to problem solving
- ② Intuition and empathy
- ③ Subject specific technical knowledge and expertise.
- ④ Commercial awareness of your specialist area of engineering.
- ⑤ IT and CAD knowledge.
- ⑥ The ability to work in a team.