CBCS SCHEME

ACHARYA INSTITUTE OF TECHNOLOGY LIBRARY BANGALORE

USN | | | | | | | | | |

21ME744

Seventh Semester B.E./B.Tech. Degree Examination, June/July 2026

Product Design and Ergonomics

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. Briefly enumerate the ASIMOW Model in Product Design. **(10 Marks)**

b. Explain the essential factors of the Product Design. **(10 Marks)**

OR

2 a. Explain with a neat sketch the Production Consumption Cycle with an example. **(10 Marks)**

b. Describe the Morphology of design in seven phases. **(10 Marks)**

Module-2

3 a. Explain man machine systems depending upon size and complexity. **(10 Marks)**

b. Briefly enumerate the workstation Design. **(10 Marks)**

OR

4 a. Define Anthropometry? Explain its importance for a Designer. **(10 Marks)**

b. List and explain the advantages of Ergonomics in Automated Systems **(10 Marks)**

Module-3

5 a. Explain the:
i) Concept of Unity
ii) Concept of Order with Variety
iii) Concept of purpose **(12 Marks)**

b. List and explain any Four components of style in Aesthetics. **(08 Marks)**

OR

6 a. Explain types of house style in Aesthetics. (10 Marks)

b. Define Aesthetics? Explain the advantages and Disadvantages. (10 Marks)

Module-4

7 a. Explain the Mechanics of seeing with the eye. (10 Marks)

b. Describe the general influences of line and form in seeing. (10 Marks)

OR

8 a. Explain the physiology of seeing in Ergonomics. (10 Marks)

b. List and explain the types of lines and form in Ergonomics. (10 Marks)

Module-5

9 a. Explain how technology can be used Ergonomics management. (10 Marks)

b. List and explain the benefit of Ergonomic safety. (10 Marks)

OR

10 a. Explain how the ergonomics can be used to improve the quality of life. (10 Marks)

b. Enumerate the advantages of using ergonomics in office systems. (10 Marks)

* * * * *

VTU 10-06-2026 08:38:44am AY - AY - AY - AY
10-06-2026 09:05:44am AY - AY - AY - AY