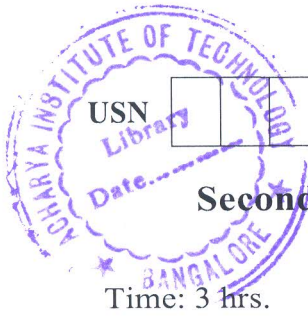


# CBCS SCHEME

18MPD21



## Second Semester M.Tech. Degree Examination, June/July 2019 Industrial Design and Ergonomics

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. List and explain elements mainly required in designing any industrial product. (10 Marks)  
b. Explain the scope of industrial design required between operator and machine. (10 Marks)

OR

- 2 a. List and explain the control elements required between operator and machine. (10 Marks)  
b. Write note on ergonomic approach to work station design. (10 Marks)

### Module-2

- 3 a. Name five type of display and give one example each? (10 Marks)  
b. What are the principles of display design? (10 Marks)

OR

- 4 a. Explain anthropometric data its application in ergonomics and limitation of anthropometric data. (10 Marks)  
b. Describe effectiveness and cost effectiveness of ergonomics in production system. (10 Marks)

### Module-3

- 5 a. With neat sketch explain the mechanism of seeing. (10 Marks)  
b. Explain the Gestalts law of visual perception with illustrations and examples. (10 Marks)

OR

- 6 a. Write note on :  
i) After image ii) colour blindness iii) colour constancy iv) colour terms. (10 Marks)  
b. Explain Munsell colour system? What is colour circle. (10 Marks)

### Module-4

- 7 Write notes on :  
i) Concept of unity ii) concept of order with variety iii) concept of purpose. (20 Marks)

OR

- 8 a. Describe Aesthetic expressions. (10 Marks)  
b. Explain components of style. (10 Marks)

### Module-5

- 9 a. What is specifying design requirements? (10 Marks)  
b. Explain rating the importance of industrial design. (10 Marks)

OR

- 10 a. Explain industrial design in the design process. (10 Marks)  
b. What are the ways of using industrial designers? (10 Marks)

\* \* \* \* \*

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.