

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- VII EXAMINATION-SUMMER 2023****Subject Code: 3172015****Date: 30/06/2023****Subject Name: Industrial Design and Applied Ergonomics****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

			Marks
Q.1	(a)	What do you mean by Industrial Design?	03
	(b)	What is the scope & nature of Aesthetics?	04
	(c)	Explain the necessity, involvement criteria & importance of ergonomics in Industrial Design.	07
Q.2	(a)	Classify the shapes & sizes of various controls in Industrial Design.	03
	(b)	Describe the mechanism of visual effect of line.	04
	(c)	Describe the methods of ergonomics controls with a suitable example.	07
OR			
	(c)	What type of controls do you prefer to set in an automobile? Why?	07
Q.3	(a)	Write down the different elements of the design structures used for Industrial design in Engineering.	03
	(b)	What are the different consideration areas/ points of controls to be consider during the design of any machine tools.	04
	(c)	Explain the Anthropometric data & their importance.	07
OR			
Q.3	(a)	How do you use Industrial Design in General Practice?	03
	(b)	Explain the importance of the display devices by suitable example.	04
	(c)	How do you explain the importance of anthropometric data in design of Human- Machine system to your head of Design Engineer? Write a report with a proper example.	07
Q.4	(a)	What is the Aesthetic Concept of Unity?	03
	(b)	What do you mean by visual effect of Line & Form?	04
	(c)	Write any case study from the point of view of Aesthetic.	07
OR			
Q.4	(a)	Write down the list of Aesthetic Expression that we can include in any Industrial Product.	03
	(b)	Write a brief note about guidelines for designing the display devices.	04
	(c)	Explain the aesthetic expressions by suitable example of any product.	07
Q.5	(a)	Write any five consideration area for choosing a display for any machine tools.	03
	(b)	Explain the purpose of concept Style.	04
	(c)	Briefly explain the psychology of seeing general influence of line & form.	07
OR			
Q.5	(a)	Explain the importance of visual effect of colour.	03
	(b)	What are the different fields normally referred in ergonomics?	04
	(c)	Describe briefly about the importance of colour on engineering equipment and give suitable examples.	07
