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# PRESIDENCY UNIVERSITY BENGALURU

# SCHOOL OF DESIGN END TERM EXAMINATION - JUN 2023

Semester: Semester VI - 2020 Date: 14-JUN-2023

**Course Code**: BDP310 **Time**: 1.00PM - 4.00PM

Course Name: Sem VI - BDP310 - Advance Ergonomics Max Marks: 100

Program: BDP Weightage: 50%

#### Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the guestion paper other than Roll Number.

#### **PART A**

## **ANSWER ALL THE QUESTIONS**

(2 X 10 = 20M)

1. Write the full form of RSI. What do you mean by RSI and what factors affect RSI? Explain the stages of RSI with examples.

(CO2) [Knowledge]

2. What are the key principles of ergonomics that product designers should consider when developing a new product? How can product designers accommodate the needs of users with disabilities or special requirements?

(CO1) [Knowledge]

#### **PART B**

### **ANSWER ALL THE QUESTIONS**

(2 X 20 = 40M)

**3.** Take the dimensions for the given pliers, and perform a product ergonomic analysis. Compare the dimensions you measured to the anthropometric data. Provide product measurement, parameter, percentile assessment, analysis, and conclusion using Indian anthropometric data book. Provide at least 4 parameters.

(CO3) [Comprehension]

**4.** Give examples for each of the five theories of causation as you describe them. What elements influence people's perceptions of the potential hazards of accidents? Describe using an example.

(CO1) [Comprehension]

## **PART C**

# **ANSWER ALL THE QUESTIONS**

(1 X 40 = 40M)

**5.** Present the given topic and defend the jury's clarifications.

(CO2,CO3,CO4,CO1) [Application]