

Roll No



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF COMMERCE  
MID TERM EXAMINATION - APR 2023**

**Semester :** Semester II -2022

**Course Code :** BSE2011

**Course Name :** Sem II - BSE2011 - Applied Statistics

**Program :** BSE

**Date :** 15-APR-2023

**Time :** 9:30AM - 11AM

**Max Marks :** 50

**Weightage :** 25%

**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 question paper other than Roll Number.

**PART A**

**ANSWER ALL THE FIVE QUESTIONS**

**5 X 2=10M**

1. What are the differences between Primary and Secondary data?  
(CO1) [Knowledge]
2. Give two examples for population and sample in a study.  
(CO1) [Knowledge]
3. In a region, there were 30 maternal deaths in a year, and there were 10,000 live births. Calculate the Maternal Mortality Rate (MMR) of the region.  
(CO2) [Knowledge]
4. In a city, the number of live births among women aged 20-24 is 4,000, and the population of women aged 20-24 is 50,000. Calculate the Age-Specific Fertility Rate (ASFR) for this age group.  
(CO2) [Knowledge]
5. Define Null Hypothesis  
(CO3) [Knowledge]

**PART B**

**ANSWER ALL THE TWO QUESTIONS**

**2 X 10 = 20M**

6. Write notes on:
  - a. Sampling Design Process
  - b. Random Sampling methods
  - c. Non Random Sampling methods  
(CO1) [Knowledge]

7. Elaborate on the term hypothesis? How does it help in business decision making?  
(CO3) [Comprehension]

**PART C**

**ANSWER THE ONE QUESTION**

**1 X 20 = 20M**

8. A company that manufactures plastic chairs has launched a new brand. The company sells through various retail outlets across the country. The management of the company believes that the average price for the new brand is Rs. 550 in all outlets. A researcher wants to verify this claim and has taken a random sample of selling price of the new brand from 25 outlets across the country. These prices are given in table:
- |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 540 | 555 | 560 | 565 | 563 | 567 | 555 | 552 | 543 | 546 | 560 |     |     |     |
| 551 | 542 | 558 | 556 | 552 | 550 | 556 | 559 | 554 | 557 | 558 | 556 | 543 | 553 |
- Use  $\alpha = 0.05$  for testing the hypothesis.

(CO3) [Application]