## FACULTY OF MANAGEMENT

## M.B.A. II - Semester (CBCS) Examination, December 2020

## Subject: Business Research Methods

$$
\text { Paper - } 203
$$

## Time: 2 Hours

Max. Marks: 80

## PART - A ( $4 \times 5$ = $\mathbf{2 0}$ Marks)

[Short Answer Type]
Note: Answer any Four questions.
1 Central Limit Theorem
2 Joint probability
3 Ordinal Scale
4 Type-I error
5 Linear Regression

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\text { PART - B ( } 4 \times 15=60 \text { Marks })
$$

[Essay Answer Type]
Note: Answer any four questions.
6 Explain about the Research Process.
7 Describe measures of Central Tendency and Dispersion.
8 Define Probability and explain about additive, multiplicative and conditional rules of probability with suitable examples.

9 In a Research Methodology Book, the following frequency mistakes per page were observed. Fit a Poisson distribution.

| No. of Mistakes | 0 | 1 | 2 | 3 | 4 | 5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| No. of Pages | 620 | 180 | 80 | 60 | 40 | 80 |

10 Describe the basic approaches and methods for merging data from different sources.

11 Explain the Source of Secondary Data.
12 What is Hypothesis Testing/ why is it done? Explain various steps in Hypothesis Testing.

Code No. 12083

## -2-

13 A sample of sales in similar shops in two towns are taken for a new product with the following results:

| Town | Mean <br> Sales | Variance | Sample <br> Size |
| :---: | :---: | :---: | :---: |
| A | 5 | 5 | 5 |
| B | 7 | 3 | 7 |

Is there any evidence of difference in sales in the two towns? Use 5 per cent level of significance to test this difference between the means of two samples.

14 Calculate coefficient of correlation from the following data:

| X | 100 | 200 | 300 | 400 | 500 | 600 | 700 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 | 1.1 | 1.3 |

15 The following table gives the age of cars of a certain make and annual maintenance costs. Obtain the regression equation for costs related to age.

| Age of cars in year | 2 | 4 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: |
| Maintenance cost in Rs.('00) hundred of Rs. | 10 | 20 | 25 | 30 |

