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**Presidency University**

**Bengaluru**

 **SCHOOL OF COMMERCE**

**Make-Up Examinations, July 2024**

**Semester**: V

**Course Code**: BBB3003

**Course Name**: Essential Statistics for Business Analytics

**Program:** BBA Analytics

**Date**: 1st July, 2024

**Time**: 09:30 am -12:30 pm

**Max Marks**: 100

**Weightage**: 50%

 **Instructions:**

1. *Read the all questions carefully and answer accordingly.*
2. *Question paper consists of three parts.*
3. *Scientific and Non Programable Calculators are Permitted.*
4. *Do not write any information on the question paper other than roll number.*

**Part A**

**Answer any FIVE Questions. (5 Q x 2 M = 10 M)**

1. Define the meaning of statistics (CO1) [Knowledge ]

2. Elucidate any two challenges with Big Data application (CO1) [Knowledge ]

3. Explain the concept of classification of data (CO2) [Remember]

4. From the following data prepare a simple bar diagram

 Firm A B C D E F

 Wages 250 498 440 205 90 290 (CO2) [Application]

5. Explain the terms of Level of Significance (CO3) [Knowledge]

6. Calculate Median from the following data.

 230, 135, 170, 110, 150, 160, 210 (CO4) [Application]

7. Differentiate between correlation and regression analysis (CO5) [ Knowledge]

**Part B**

**Answer any FIVE Questions. (5 Q x 10 M = 50 M)**

8. Statistics play a crucial role in various aspects of life, science, and industry. Who is

 considered the father of statistics? Explain the functions statistics. (CO1) [Knowledge]

9. In statistics, diagrams are graphical representations of data. They help to visualize and

 understand the distribution, trends, and patterns within the data. Enlighten the various

 types diagrams with an example. (CO 2) [Understand]

10. Sampling is a technique used in statistics to select a subset of individuals or items from a

 larger population. Describe the numerous sampling techniques. (CO3) [Knowledge]

11. Calculate mode for the following data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Class Intervals | 0-10 | 10- 20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
| Frequency  | 4 | 13 | 85 | 44 | 33 | 22 | 7 |

 (C.O.4) [Application]

12. Find out Quartile Deviation from the following data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age in years: | 0-10 | 10--20 | 20-30 | 30-40 | 40-50 |
| No of persons: | 18 | 30 | 22 | 10 | 6 |

 (C.O.4) [Application]

13. Calculate the Karl Pearsons co-efficient of Correlation between age of Husbands and wife’s

 and comment the on the results.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Age of Husband | 31 | 30 | 40 | 51 | 60 | 70 | 80 |
| Age of Wife | 29 | 25 | 36 | 49 | 54 | 65 | 75 |

 (C.O.5) [Application]

14. Discuss the regression analysis? Explain several types of regression. (C.O.5) [Knowledge]

**Part C**

**Answer any TWO Questions. (2 Q x 20 M = 40 M)**

15. From the following data:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Profits (in Lakhs): | 80 | 72 | 75 | 80 | 83 | 85 | 81 |
| Sales (in Crores): | 20 | 21 | 23 | 25 | 26 | 29 | 24 |

1. Find the two regression equations

 (b) The sales for profit of Rs. 40 lakhs (C.O.5) [Application]

16. Calculate the Standard Deviation and Co- efficient of variation (CV) from the following data set.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Profits: | 0-100 | 100-200 | 200-300 | 300-400 | 400-500 | 500-600 |
| No. of Companies  | 12 | 18 | 40 | 22 | 15 | 10 |

 (C.O.5) [Application]

17. Explain the meaning of primary and secondary data. Elucidate the various sources of

 collecting Primary and secondary data. (CO1) [Knowledge]