**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27**

Register Number:

DATE:

**BBA/BBASF – II SEMESTER**

**SEMESTER EXAMINATION: APRIL 2022**

**(Examination conducted in July-August 2022)**

**BA2121/BASF2121: Quantitative Methods and Techniques for Business Decisions**

Time- 2 hrs Max Marks-60

**This paper contains two printed pages and four parts**

**Section A**

**I.** Answer ***any five*** of the following (**5x2 = 10 Marks)**

1. Solve: 5x – 6 = 3x - 8
2. Mention the two types of data?
3. If 15 chairs cost Rs.750/- what will be the cost of 120 chairs, at the same price?
4. Give the meaning of Mean? Give example.
5. If A can complete a piece of work in 8 hrs and B alone in 12 hrs. How many hours will it take for both A and B to complete the work together?
6. Mention the limitations of Pearson’s Correlation Coefficient.
7. Share Rs.125 among A and B in the ratio 2:3

**Section B**

**II.** Answer ***any three*** of the following (**3x5 = 15 Marks)**

1. Sum of two numbers is 107 and their difference is 17. Find the numbers.
2. Briefly explain the concept of skewness and kurtosis.
3. Determine the principal which will amount to Rs.13,000 in 6 years at 5% p.a.
4. Briefly explain: a) Scatter Diagram

 b) Properties of Regression coefficient.

**Section C**

**III.** Answer ***any two*** of the following (**2x10 = 20 Marks)**

1. The scores of two batsmen A and B in ten cricket matches is given below:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **32** | **28** | **47** | **63** | **71** | **39** | **10** | **60** | **96** | **14** |
| **B** | **19** | **31** | **48** | **53** | **67** | **90** | **10** | **62** | **40** | **80** |

Using co-efficient of variation, find whether batsman A or B is more consistent in scoring.

1. Discuss the importance, scope and limitations of Statistics.
2. Find the mode of the following data using grouping table.

|  |  |
| --- | --- |
| Size | Frequency |
| 10 | 3 |
| 20 | 5 |
| 30 | 3 |
| 40 | 1 |
| 50 | 2 |
| 60 | 5 |
| 70 | 13 |
| 80 | 9 |
| 90 | 2 |

**Section D**

**III. Answer the following (1x15=15 Marks)**

1. Marks scored in a class test by ten students in mathematics and Statistics is as mentioned below:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Mathematics** | **45** | **70** | **65** | **30** | **90** | **40** | **50** | **75** | **85** | **60** |
| **Statistics** | **35** | **90** | **70** | **40** | **95** | **40** | **60** | **80** | **80** | **50** |

1. Find the correlation coefficient. **(5 marks )**
2. Find the probable error. **(2 marks )**
3. Find the regression equations. Estimate score in statistics when score in mathematics is 99. **(8 marks )**