

**ST. JOSEPH’S UNIVERSITY, BENGALURU -27**

**B. Com – II SEMESTER**

**SEMESTER EXAMINATION: APRIL 2023**

**(Examination conducted in May 2023)**

**BC 2321 / BPS 2321 QUANTITATIVE METHODS FOR DECISION MAKING**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 60**

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

**PART-A**

**I. Answer *any FIVE* of the following (3x5=15marks)**

1. The man is 24 years older than his daughter. In two years, his age will be twice the age of his daughter. What is the present age of his daughter?
2. Mr. X’s salary is 40% more than Mr. Y. How much percent is Y’s salary less than that of X?
3. State any four characteristics of statistics.
4. List out the objectives of classification of data.
5. What is Kurtosis? Mention its types.
6. How do you interpret the value of r, if r is between the range of -0.75 and -1 and when r is 0?

**PART-B**

**II. Answer *any TWO* of the following (5x2=10marks)**

1. Find the compound interest on Rs. 6000 at 5% payable half-yearly and quarterly for 4 years respectively.
2. If 6 men can dig 7 borewells spending 8 hours daily for 9 days, then how many days will it take for 10 men to dig 9 borewells working 7 hours daily?
3. Outline the limitations of statistics.

**PART-C**

**III. Answer *any TWO* of the following (10x2=20marks)**

1. A) Compute the Arithmetic mean for the following data: **(5 marks)**

| **Wages in 1000** | <3 | <6 | <9 | <12 |
| --- | --- | --- | --- | --- |
| **Workers** | 5 | 6 | 8 | 15 |

B)Brief out the scope of statistics. **(5 marks)**

1. A) Solve for X: $x^{2}-2x-15=0$ **(5 marks)**

B) By selling a Bike for Rs. 49,650 a man loses 6%. At what price should he sell so that he gains 5%. **(5 marks)**

1. A) Compute Q1, Q2 and Q3 for the following data: **(5 marks)**

| **Class Interval** | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Frequencies** | 5 | 8 | 7 | 12 | 28 | 20 | 10 | 10 |

B) From the given information compute spearman’s rank correlation: **(5 marks)**

| **X** | 60 | 34 | 40 | 50 | 45 | 41 | 22 | 43 | 42 | 66 | 64 | 46 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Y** | 75 | 32 | 35 | 40 | 45 | 33 | 12 | 30 | 36 | 72 | 41 | 57 |

**PART-D**

**IV. Answer the following (15x1=15marks)**

1. A) Find the regression equation X on Y. **(5 marks)**

| **X** | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Y** | 9 | 8 | 10 | 12 | 11 | 13 | 14 |

* B) The following table shows the scores of two batsmen Polo and Dolo in a recent cricket tournament. Find out who is the better scorer and who is more consistent.

**(10 marks)**

| **Polo** | 50 | 65 | 40 | 88 | 101 | 52 | 63 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Dolo** | 45 | 85 | 90 | 65 | 75 | 88 | 135 |

**\*\*\*\*\*\*\*\*\*\*End of the paper\*\*\*\*\*\*\*\*\*\*\***