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Register Number:

DATE: 21-04-2017

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

**B.A .ECONOMICS - IV SEMESTER**

**SEMESTER EXAMINATION – APRIL 2017**

**ECA 415: Statistical Methods for Economics**

**Time: 1.30hrs Max. Marks: 35**

***This question paper has 2 printed pages and 3 parts.***

**Part – A**

**Answer any 5 of the following: [5 x 3 = 15]**

1. Draw a multiple bar diagram for the enrollment in the national rural employment programme in the service and non-service sectors

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2015 | | 2016 | | 2017 | |
| *Enrolment in the NRE programme[IN 000’]* | SS | NON - SS | SS | NON SS | SS | NON SS |
| 29 | 48 | 27 | 45 | 29 | 28 |

1. Find Median for the following

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | 12 | 22 | 17 | 14 | 23 | 32 | 23 | 12 | 10 |
| f | 1 | 1 | 3 | 2 | 12 | 4 | 4 | 3 | 3 |

1. Find Mean deviation for the following

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | 12 | 11 | 12 | 10 | 11 | 12 | 07 | 02 | 03 |

1. Illustrate with the help of diagrams the 3 types of kurtosis
2. Find rank correlation for the following

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R1 | 3 | 2 | 5 | 6 | 7 | 4 | 1 | 8 |
| R2 | 1 | 2 | 6 | 3 | 4 | 5 | 7 | 8 |

EC-415-A-17

1. For the following construct an index for 2017 by Pasches method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Commodities | Quantity in 2016 [q0] | Price in  2017[Rs][p1] | Quantity in 2017[q1] | |
| A | 50 | 20 | 55 | |
| B | 40 | 06 | 43 | |
| C | 80 | 12 | 65 | |
| D | 11 | 12 | 10 | |
| E | 20 | 04 | | 27 |

**Part – B**

**Answer any 2 of the following [2 x 5 = 10]**

1. Find mean for the following by deviation method

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| C-I | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
| X | 4 | 5 | 7 | 10 | 4 | 2 | 2 |

1. Compute quartile and coefficient of quartile deviation

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | 4 | 6 | 5 | 4 | 6 | 5 | 3 | 5 | 4 | 4 |
| f | 1 | 1 | 2 | 3 | 3 | 1 | 5 | 1 | 2 | 1 |

1. Find regression line Y on X for the following

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 2 | 4 | 5 | 6 | 8 | 11 |
| y | 10 | 11 | 05 | 04 | 02 | 01 |

**Part – C**

**Answer any 1 of the following [1 x 10 = 10]**

1. Find mode for the following

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| C-I | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 |
| F | 5 | 6 | 8 | 10 | 4 | 3 | 3 | 2 |

1. Find Skewness for the following by Bowleys method

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| C-I | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 |
| F | 3 | 4 | 2 | 10 | 5 | 4 | 3 | 1 |

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