

**SCHOOL OF COMPUTER SCIENCE AND APPLICATIONS**

**Odd Semester 2024-2025**

**Assignment II**

Programme: PG – MCA Course Code: M23DE0101

Semester: I Course Title: Mathematics for Computer Applications

Section: A Name of the Faculty: Dr. M Vinayaka Murthy

Date of Announcement: 29-01-25

Date of Submission: 03-02-25

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| **Sl.No** | **Assignment Question** | **CO** | **PO** | **PSO** |
| **1.** | From the following data of marks obtained by 10 students in Computer Science and Statistics, calculate the co-efficient of rank correlation   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 35 | 56 | 50 | 65 | 44 | 38 | 44 | 50 | 15 | 26 | | y | 50 | 35 | 70 | 25 | 35 | 58 | 75 | 60 | 55 | 35 | | **2** | **1,2** | **1,3** |
| 2 | Find the regression line of y on x - axis for the following data also estimate y corresponding to x = 6.2   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | y | 9 | 8 | 10 | 12 | 11 | 13 | 14 | 16 | | **2** | **1,3** | **1,2** |
| 3. | In a bivariate data, the regression lines are  , find r, | **2** | **1,2** | **1,3** |
| 4 | Fit a straight line equation i.e., y = a + bx to the following data   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | x | 1911 | 1921 | 1931 | 1941 | 1951 | | y | 15 | 23 | 28 | 32 | 39 | | **2** | **1,2** | **1,3** |
| 5 | Fit a straight line to the following data   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | x | 1 | 2 | 3 | 4 | 5 | | y | 2 | 5 | 3 | 8 | 7 | | **2** | **1,2** | **1,3** |
| 6 | From the following data of marks obtained by 10 students in Mathematics and Statistics, calculate the co-efficient of rank correlation   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 43 | 96 | 74 | 38 | 35 | 43 | 22 | 56 | 35 | 80 | | y | 30 | 94 | 84 | 38 | 30 | 18 | 30 | 41 | 48 | 95 | | **2** | **1,3** | **1,2** |
| 7 | The height ( x cms) and weight (y kgs) of 6 students are as follows. Obtain the two regression equations. Also find the expected height a person whose weight in 60 kgs   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | x | 153 | 157 | 168 | 160 | 170 | 163 | | y | 48 | 50 | 50 | 49 | 54 | 53 | | **2** | **1,3** | **1,2** |
| 8 | Fit a curve of the form y = a xb to the following data   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | x | 3 | 4 | 5 | 6 | 7 | | y | 126 | 42 | 20 | 6 | 3 | | **2** | **1,2** | **1,3** |
| 9 | Find the co-efficient of correlation for the following data   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | 36 | 43 | 47 | 28 | 35 | 50 | 40 | | y | 73 | 44 | 35 | 30 | 20 | 36 | 40 | | **2** | **1,2** | **1,3** |
| 10 | From the following data of marks obtained by 10 students in Computer Science and Statistics, calculate the co-efficient of rank correlation   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 35 | 56 | 50 | 65 | 44 | 38 | 44 | 50 | 15 | 26 | | y | 50 | 35 | 70 | 25 | 35 | 58 | 75 | 60 | 55 | 35 | | **2** | **1,2** | **1,3** |
| 11 | Find the co-efficient of correlation for the following data   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | x | 62 | 64 | 69 | 70 | 71 | 72 | 74 | | y | 126 | 125 | 139 | 145 | 152 | 180 | 208 | | **2** | **1,2** | **1,3** |
| 12 | From the following data, calculate the co-efficient of rank correlation   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 53 | 90 | 64 | 28 | 35 | 43 | 32 | 56 | 35 | 90 | | y | 50 | 94 | 74 | 28 | 30 | 28 | 30 | 47 | 49 | 94 | | **2** | **1,2** | **1,3** |



**Subject Teacher H O D Director**