**Mid Term Assignment**

**Probability methods in Engineering**

**Note: Please attempt all questions . All questions carry equal marks.**

**Q1:** Construct a grouped frequency distribution table and cumulative frequency curve (Ogive) for the observations below.

 423, 369, 387, 411, 393, 394, 371, 377, 389, 409, 392, 408, 431, 401, 363, 391,

 405, 382, 400, 381, 399, 415, 428, 422, 396, 372, 410, 419, 386, 390

**Q2:** For the observations given in **Q1** calculate Median, Mode and Quartiles for grouped distribution.

**Q3:** For the following grouped distribution table calculate Mean deviation from Mean and Mean deviation from Median

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Class | 5-7 | 8-10 | 11-13 | 14-16 | 17-19 | 20-22 | 23-25 |
| Frequency | 15 | 18 | 27 | 10 | 6 | 5 | 13 |

**Q4**: For the following grouped distribution table Calculate The Variance and Standard Deviation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Class | 64-84 | 85-104 | 105-124 | 125-144 | 145-164 | 165-184 | 185-204 |
| Frequency | 15 | 18 | 27 | 10 | 6 | 5 | 13 |

**Q5: Define the following terms**

1. Measures of Central tendency
2. The Range
3. The Weighted Arithmetic Mean

***Good Luck***