

GOA COLLEGE OF ENGINEERING, FARMAGUDI, PONDA GOA DEPARTMENT OF MECHANICAL ENGINEERING BE MECH-SEM VII SIX SIGMA MANAGEMENT

ASSIGNMENT NO. 2: Tools used in Six Sigma

Last date of submission: 21th November 2022 (Monday); during 11.15 am lecture

1. Develop frequency distribution and histogram for the following data.

| | | | | | | , | | - 0 | |
|----|----|----|----|----|----|----|----|-----|----|
| 36 | 25 | 38 | 46 | 55 | 68 | 72 | 55 | 36 | 38 |
| 67 | 45 | 22 | 48 | 91 | 46 | 52 | 61 | 58 | 55 |

2. Prepare a Pareto chart for studying defect in Shirt.

| Type of defect | No. of defects | | |
|------------------|----------------|--|--|
| Defect in Collar | 5 | | |
| Defect in Sleeve | 18 | | |
| Defect in Button | 9 | | |
| Defect in Pocket | 12 | | |
| Defect in Cuff | 10 | | |

- 3. Construct a Cause-and-Effect Diagram for "Low performance of students in exam".
- 4. For the following:
- 34, 34, 26, 37, 42, 41, 35, 31, 41, 33, 30, 74, 33, 49, 38
- i) Find the median, lower quartile, upper quartile and the interquartile range.
- ii) Draw a box and whisker plot, identifying any outliers.
- 5. Construct a normal probability plot on a **regular graph paper** for 4.1, 6.3, 6.9, 3.7, 6.6, 7, 5.6. 4.5, 3.9, 6.2. From the graph, obtain mean and standard deviation.

