



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – STATISTICS

SIXTH SEMESTER – APRIL 2019

16UST6MC03/ ST 6608 – STATISTICAL QUALITY CONTROL

Date: 10-04-2019

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**SECTION –A**

**Answer ALL the questions**

**(10 x 2 =20 Marks)**

1. What is meant by prevention cost?
2. Define total quality management.
3. Define frequency distribution.
4. Point out any two uses of stem and leaf plot.
5. Define statistical process.
6. Write the control limits for R chart.
7. Give the ways to represent cusums.
8. Define process capability analysis.
9. Write any two advantages of acceptance sampling.
10. Define double-sampling plan.

**SECTION –B**

**Answer any FIVE questions:**

**(5 x 8 =40 Marks)**

11. Write short notes on statistical methods for quality control and improvement.
12. Discuss on quantile plot.
13. Explain the need for management of product quality.
14. Describe the construction of  $\bar{X}$  and S chart.
15. Write short notes on acceptance sampling.
16. Write about Box plot technique.
17. Explain the construction of p chart using control limits based on average sample size.
18. Write short notes on productivity improvement.

**SECTION –C**

**Answer any TWO questions:**

**(2 x 20 =40 Marks)**

19. (a) Explain the construction of np chart.  
(b) State the benefits of Statistical quality control.
20. (a) Discuss about stem and leaf plot with an example.  
(b) Write down the applications of P and C chart.
21. (a) Distinguish between Shewart control chart and cusum control chart.  
(b) Explain the sequential sampling plan.
22. (a) Explain single sampling plan for attributes.  
(b) Write down the merits and demerits of acceptance sampling.

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