



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – STATISTICS

SIXTH SEMESTER – APRIL 2017

ST 6608- STATISTICAL QUALITY CONTROL

Date: 24/04/2017
09:00-12:00

Dept. No.

Max. : 100 Marks

Part – A

Answer ALL questions:

(10*2=20 Marks)

1. What are the elements of TQM?
2. Define quality planning.
3. When do we use stem and leaf plot?
4. Define frequency distribution.
5. What is meant by process control?
6. List out the control charts for attributes.
7. Give any two applications of process capability analysis.
8. Give the difference between p-chart and np-chart.
9. Explain ASN.
10. What is meant by producer's risk?

Part – B

Answer any FIVE questions:

(5*8=40 Marks)

11. Explain statistical methods for quality improvement.
12. Discuss the major applications of statistical process control.
13. Explain the construction of qq plot with an example.
14. Distinguish between control charts for variables and attributes.
15. Write short notes on CUSUM control chart.
16. Explain single sampling inspection plan in detail.
17. What is acceptance sampling? Mention the situations where it is most likely to be useful.
18. Explain the operating procedure for double sampling plan and multiple sampling plan.

Part – C

Answer any TWO questions:

(2*20=40 Marks)

19. (a) Mention the requirements for successful implementation of TQM.
(b) List out the benefits of statistical quality control.
20. Construct Histogram and stem and leaf plot for the data given below.

127	125	131	124	129	121	142	151	160	125
124	123	120	119	128	133	137	124	142	123
121	136	140	137	125	124	128	129	130	122
118	131	125	133	141	125	140	131	129	126

21. Describe the procedure for the construction of \bar{X} and R charts with an example.
22. Write short notes on (i) AQL, (ii) LTPD, (iii) AOQL and (iv) ATI for single sampling plan.
