



QP CODE: 25024564



25024564

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, APRIL 2025

Fourth Semester

M.Sc STATISTICS (APPLIED)

ELECTIVE - ST830402 - INDUSTRIAL STATISTICS

2019 ADMISSION ONWARDS

84D06990

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Which are the three major statistical techniques useful in quality improvement? Explain.
2. Describe moving average control chart.
3. Explain control chart for number of defectives.
4. How the operating characteristics curve are studied in quality control?
5. Explain the uses of EWMA chart.
6. Explain CUSUM chart.
7. Distinguish between producer's risk and consumer's risk..
8. Explain Multiple Sampling Plan.
9. Give the expressions for ASN and ATI under SSP.
10. What do you mean by m method associated with variable sampling plan?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Distinguish between variable control chart and attribute control chart.
12. Discuss the construction and working of X bar and S chart.
13. Explain the construction and working of c chart.





14. Explain u chart and how will you interpret the result.
15. Explain briefly the importance of process capability analysis and process capability indices.
16. Describe a procedure to derive a DSP using attribute with specified α and β .
17. Describe Average Total Inspection and ATI curve of SSP.
18. Describe variable sampling plan and give its advantages.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Distinguish between variable control chart and attribute control chart. Explain the construction and working of p chart.
20. Describe modified control chart.
21. Describe Single Sampling Plan.
22. Describe variable sampling plan and explain its OC curve.

(2×5=10 weightage)

