

QP CODE: 26019297



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M.Sc STATISTICS (APPLIED)

ELECTIVE - ST830402 - INDUSTRIAL STATISTICS

2019 Admission Onwards

6D5DF54D

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Explain Statistical Process Control.
2. What are the advantages and disadvantages of moving average control chart?
3. What are the control limits of p chart?
4. What do you mean by an operating characteristics curve? Explain its uses.
5. Explain CUSUM chart.
6. Write the importance of process capability indices.
7. Explain Acceptable Quality Level and Producer's risk.
8. Explain Multiple Sampling Plan.
9. Obtain the expression of AOQ for DSP.
10. Distinguish between variable sampling plan and attribute sampling plan.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain control chart. Discuss the logic underlying the use of 3-sigma limit on Shewhart control charts.
12. What is np chart? When and where it is used?
13. Explain the control chart for number of defects. How will you interpret the result in c chart?
14. Explain u chart and derive its limits.





15. Explain economic design of control charts.
16. What is DSP? Explain the procedure and design of DSP.
17. Establish the OC function of Single Sampling Plan.
18. Give the sampling plan for the proportional defectives with unknown variance.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. (i) Explain control chart. (ii) Discuss the construction and working of S chart.
20. Explain EWMA chart and give its advantages and disadvantages.
21. Describe Single Sampling Plan.
22. Describe variable sampling plan and explain its OC curve.

(2×5=10 weightage)

