B.Sc. DEGREE EXAMINATION,APRIL 2019
III Year VI Semester
Statistical Quality Control and Reliability

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. Define specification limits.
2. Define assignable causes of variation.
3. Give the control chart for attributes
4. When do you go for modified control limits?
5. What type of chart is constructed for number of defectives?
6. Write down the ASN of double sampling plan.
7. What is producer's risk?
8. Draw the flow chart of single sampling plan.
9. State any two failure time distribution.
10. Define reliability.
11. Define OC curve.
12. Write down the control limits for $\overline{X}$ chart.

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Explain 3 σ-limits.
14. Give the uses of Shewhart control chart.
15. Explain single sampling plan
16. Describe SPRT.
17. Explain average outgoing quality.
18. Describe about bath-tub curve.
19. Explain the major parts of a control chart.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. List the criteria for lack of control with respect to $\overline{X}$ and R Charts.
21. Derive the control limits for p-chart.
22. Describe double sampling plan.
23. Derive the formula for n and k when sigma is known for one-sided specification.
24. Explain about series system and parallel system.

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