B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
III Year VI Semester
Core Major - Paper XIV
STATISTICAL QUALITY CONTROL AND RELIABILITY

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

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

Answer any **TEN** questions

1. Define quality.
2. Give any three uses of control chart.
3. Write down the control limits of $\overline{X}$ chart.
4. What are attribute control charts?
5. What is LTPD?
6. What is meant by product control?
7. State the Operating Characteristic function of double sampling plan.
8. What is sequential analysis?
9. What is ATI?
10. Define hazard rate.
11. Give any two differences between sigma known and unkonwn in variable control chart.
12. Explain Reliability.

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

Answer any **FIVE** questions

13. Explain the Shewhart control charts.
14. Explain the causes of variation in SQC.
15. Write short notes on the following terms: (i) AOQ, (ii) ATI and (iii) AOQL(iv) ASN
16. Explain sequential sampling plan with an example.

17. Explain failure time distribution.
18. Explain the construction of C chart.
19. Write short notes on parallel and standby systems.

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

Answer any **THREE** questions

20. Explain the construction of $\overline{X}$ and R charts.
21. Stating the assumptions clearly, derive the control limits for *np* and *p* charts.
22. Distinguish between single sampling plan and double sampling plan.
23. Describe briefly single sampling plan.
24. Explain the concepts of MTTF and hazard rate with an example.

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