

B. Sc. III (Statistical Quality Control)

Paper II (B)

1. The causes of variation in the quality of manufactured product is due to
 - (a) Assignable causes
 - (b) Chance causes
 - (c) (a) and (b) both
 - (d) None of these
2. Control limits of Mean chart when standards are not given:
 - (a) $\bar{x} \pm A_2 R$
 - (b) $\bar{x} \pm A_1 R$
 - (c) $\bar{x} \pm B_1 R$
 - (d) None of these
3. When LCL of c-chart is zero, then \bar{c} is:
 - (a) 9
 - (b) 10
 - (c) 11
 - (d) 12
4. The LCL of control chart for fraction defective when standards are not given:
 - (a) $\bar{p} + A\sqrt{\bar{p}(1-\bar{p})}$
 - (b) \bar{p}
 - (c) $\bar{p} - A\sqrt{\bar{p}(1-\bar{p})}$
 - (d) None of these
5. Which chart is used to control the no. of defects in each unit of product?
 - (a) p-chart
 - (b) c-chart
 - (c) np-chart
 - (d) Mean chart
6. The process control is achieved through:
 - (a) control charts
 - (b) Acceptance sampling
 - (c) sequential sampling
 - (d) None of these
7. Product control is done by:
 - (a) control chart
 - (b) Acceptance sampling
 - (c) Both (a) & (b)
 - (d) None of these
8. The prob. of rejecting a lot of good quality is known as:
 - (a) Producer's risk
 - (b) consumer's risk
 - (c) Average quality control
 - (d) Average sample number
9. The prob. of ~~rejecting~~^{accepting} a lot of bad quality is known as:
 - (a) consumer's risk
 - (b) Producer's risk
 - (c) AORL
 - (d) ASN

- 10. \bar{X} and R-charts are used to find out:
 - (a) Production control (b) cost control (c) Process control (d) None of these
- 11. The expedited sample size required to arrive at a decision about the lot is called:
 - (a) A random number (b) Average sample number
 - (c) OC function (d) None of these
- 12. Which of the following is a control chart for attributes?
 - (a) \bar{X} -chart (b) R-chart (c) σ -chart (d) p-chart
- 13. In case of a σ -chart the UCL is given by:
 - (a) $B_4\bar{S}$ (b) $B_3\bar{S}$ (c) $\bar{S} + B_4$ (d) $\bar{S} + B_3$
- 14. A typical control chart consists of:
 - (a) Two horizontal lines (b) Three horizontal lines
 - (c) Five horizontal lines (d) None of these
- 15. If the lower control limit is found negative in case of control chart for attributes, it is taken as:
 - (a) 0 (b) 1 (c) 2 (d) None of these
- 16. In the construction of which chart Poisson distribution is used?
 - (a) \bar{X} -chart (b) R-chart (c) p-chart (d) c-chart
- 17. Control limits for ~~c~~ c-chart are:
 - (a) $\bar{c} \pm 3\sqrt{\bar{c}}$ (b) $\sqrt{\bar{c}} \pm 3\sqrt{\bar{c}}$ (c) $\bar{c} \pm 3\sqrt{\bar{c}}$ (d) $\sqrt{\bar{c}} \pm 3\sqrt{\bar{c}}$
- 18. Control chart is developed by:
 - (a) C.R. Rao (b) W.A. Shewart (c) J. Bernoulli (d) R.A. Fisher
- 19. Variations in the quality manufactured product is categorized into:
 - (a) Chance causes (b) Assignable causes
 - (c) Both (a) and (b) (d) None of these
- 20. p-chart is a control chart for
 - (a) No. of defect per unit (b) Fraction defectives
 - (c) No. of defectives (d) None of these