DSP 13 (O)

Diploma in Statistical Process Control and Operations Research (DSPCOR) Examination, August 2014
(Old Scheme)
Paper ST – III : STATISTICAL PROCESS CONTROL (SPC)

Time : 3 Hours Max. Marks : 90

SECTION – I

Answer **any 2** questions and **each** question carries **15** marks.

1. Explain the quality function of a firm.
2. Write a note on process capability study.
3. Explain the two control charts for checking non-conformities.
4. Explain the types of sampling plans.

SECTION – II

Answer **any 4** questions and **each** question carries **10** marks.

5. Differentiate between the histogram and stem-and-leaf plot.
6. Explain the comparison of natural tolerance and specification limits.
7. Set-up C-chart for the following data :

Sample No.	:	1	2	3	4	5	6	7	8	9	10
Scratch mark	:	6	3	12	8	9	7	17	5	6	4

8. Explain the steps involved in the construction of fraction-defective chart.
9. Set up $\overline{X}$-R chart and write your comments.

Sample No.	:	1	2	3	4	5	6
$\overline{X}$	:	15.6	14.0	13.8	17.6	12.8	12.2
R	:	12	4	6	8	9	8

P.T.O.

10. Define and draw the graph for ATI and AOQ and specify AOQL.

11. Explain SSP for attributes.

12. Define DSP for attributes and steps involved in it. Mention any two merits.

SECTION – III

Answer **any 4** questions and **each** question carries **5** marks.

13. What is SPC ?

14. Explain Pareto chart.

15. What are the advantages of constructing a control chart ?

16. What is the meaning of revision of control limits ?

17. What is a statistic ? Explain its role in the construction of a control chart.

18. What is U-chart ? Write the control limits for U-chart.

19. What is rectifying inspection ?

20. What is ASN ?

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