

Indian Statistical Institute, Bangalore
M.S. (QMS) First Year
Second Semester – Trouble Shooting and Problem Solving for Quality Improvement

Final Exam

Duration: 3 Hrs

Date: May 06, 2017

Max Marks: 60

1. Say True or False. [5]

- a) Cause & Effort diagram is a mapping of root causes.
- b) Stratification is problem solving tool.
- c) Problem solving ends with implementation of corrective actions and preventive actions.
- d) Tests of hypothesis is one of the simple problem solving tools.
- e) Continual improvement is achieved through trouble shooting and problem solving in the process.

2. Fill in the blanks. [10]

- a) _____, _____, _____ and _____ are the principles of brain storming.
- b) Number of dissatisfied customers is an example of _____ data.
- c) Control chart is _____ technique. (hint: trouble shooting / problem solving)
- d) Multi vari chart _____ data plot.
- e) RPN is a number obtained by multiplication of _____, _____ and _____ .

3. For a given any one scenario from the following cases, develop the trouble shooting and problem solving method you would adopt. [30]

- a) An automobile dealer striving to improve % of NPS (Net Promoter Score) customers.
- b) Reduction of complaints (monthly) in ISI BC hostels.
- c) Reduction in monthly electricity bill amount of ISI BC.

4. Write short notes on any three. [15]

- a) Capability Analysis
- b) PFMEA
- c) Data Quality Assurance
- d) Graphical tools for problem diagnosis.