

**Indian Institute of Technology**  
**School of Management and Entrepreneurship**  
**Minor I Exam: Quality Management (MSL 71500)**

Total Marks: 15

Time: 1.00 Hr

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1. Every question is compulsory.

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Q. 1 Compare and contrast the philosophy of Quality Management as proposed by Deming and Crosby. [5]

Q. 2 List the SPC tools and explain run, chart, control chart and p chart. [3]

Q.3 Determine the average, median, mode, range, and standard deviation for the height of seven people. Data are 1.83, 1.91, 1.78, 1.80, 1.83, 1.85, 1.87 meters. [2]

4) Last week's production numbers on machining center were as follows:

Scheduled operation = 10 hours/day; 5 days/week

Manufacturing downtime due to meetings, material outages, training, breaks, and so forth = 410 minutes/week

Maintenance downtime scheduled and equipment breakdown = 227 minutes/week

Theoretical (standard) cycle time = 0.5 minutes/unit

Production for the week = 4450 units

Defective parts made = 15 units

Evaluate Equipment effectiveness. [5]