1. Write short notes on:
   (a) Quality Policy          (b) Quality Audit          (c) QA          (d) TQM          (e) PDCA
   \[10\]

2. Write short notes on the following:
   (a) Bath Tub Curve          (b) ZD          (c) Variance          (d) Warning Limits          (e) Process Capability
   \[10\]

3. Compare and contrast the philosophical approaches to quality, as proposed by Deming, Taguchi and Crosby. Emphasis may be placed on hypotheses wherein one exponent agrees with another; and on hypotheses wherein one disagrees with another. \[10\]

4. \(\text{(a) List two advantages and two disadvantages of acceptance sampling.} \quad \[2\]
   \(\text{(b) Describe, briefly, how Operating Characteristics (OC) Curves, for single sampling plans, are constructed. Indicate, briefly, why cumulative Poisson tables are used in related calculations.} \quad \[8\]

5. \(\text{(a) Differentiate between quality and reliability.} \quad \[2\]
   \(\text{(b) Considering yourself as a member of the NITT community and as a citizen of Trichy region, visualize a six sigma project which will benefit the community / society at large, with associated quality improvement and cost savings. The project should not be confined to engineering skills (such as machine design). Provide a short write – up indicating the nature of your project, present level of quality / competency, need for quality improvement and projected savings / benefits to the society.} \quad \[8\]

Proposed methodology for evaluation of answer sheets: (considering the unreasonably large class size)

\$ Scheme of valuation / metrics will be provided to a team of MTech / PhD students, for valuation of answer sheets.

\$ Emphasis (for valuation) will be placed on key phrases / schematic provided (by students) in the answers.

\$ After valuation by cited team, the teacher intends to check nearly twenty answer scripts with very high marks and another twenty answer scripts with very low marks.

BEST WISHES.

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