Total No. of Questions :10] *[Total No. of Printed Pages :2*

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Roll No .....

ME - 702 (C)

B.E. VII Semester

Examination, December 2013

Total Quality Management and SQC

Elective

Time : Three Hours

Maximum Marks : 70

Note: Attempt all questions. Assume suitable data if required.

1. a) Define the TQM. State the guiding principles of TQM..
   b) Why is an ISO 9000 certification is important to a firm? Explain.

Or

2. a) What is TPM? Discuss six big losses associated with TPM.
   b) Explain the importance of team work.

3. a) What is quality? How it is an organization wide activity?
   b) Discuss the contribution of Edward deming in the field of quality.

Or

4. a) How taguchi loss function reduces loss to the society?
   b) Discuss the causes for production of a defective item.

5. a) Discuss the role of statistics in quality control.
   b) What is difference between continuous data and discontinuous data? Explain the normal distribution curve.

Or

6. a) Explain the detailed classification of control charts.
   b) In a manufacturing process, the number of defectives found in the inspection of 15 lots of 400 items each are given below:

Lot No	Number of defective	Lot No	Number of defective
1	02	9	18
2	05	10	08
3	00	11	06
4	14	12	00
5	03	13	03
6	00	14	00
7	01	15	06
8	00		

   i) Determine the trial control limits for np chart and state whether the process is in control.
   ii) What will be the new value of mean fraction defective if some obvious points outside control limits are eliminated? What will be the corresponding upper and lower control limits and examine whether the process is still in control or not?

7. a) What is the need of diagnosis a process? Classify the variable in a product.
   b) What are the advantages of observing periodic and persistence disturbances?

Or

8. a) During the manufacture of a bolt it has been found that it is defective. Draw a cause and effect diagram for this.
   b) What is brainstorming process? Why it is required?

9. a) How the customers needs can be converted in to technical specification of a product?
   b) Why attribute process capability and variable process? Capability studies are done.

Or

10. a) Explain the various types of sampling plans which are in practice in industry with their respective criteria.
    b) Draw a neat sketch of an OC curve showing its different zones (stages).

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