

R13**Code No: 118EY****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year II Semester Examinations, June - 2018****TOTAL QUALITY MANAGEMENT****(Mechanical Engineering)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) What are the fundamental factors that affect quality? [2]
- b) What is the difference between process control and product control? [3]
- c) Differentiate between Process and customer. [2]
- d) Give a brief description on Quality Audit? [3]
- e) What are the key reasons for the transition of traditional to TQM approach? [2]
- f) What is Quality Circle? [3]
- g) What is Appraisal cost? [2]
- h) What are the steps to be followed for calculation of cost of Quality? [3]
- i) Which IS/ISO 9000 standard is meant for certification? [2]
- j) What does ISO 9001:2000 signify? [3]

PART - B**(50 Marks)**

- 2.a) When is acceptance sampling useful?
- b) The Poseidon Fabric Co. produces large beach towels (among other things): they are supposed to be brightly colored and have a fringe on each end. From time to time, a towel is selected from the finished goods and subjected to an intense inspection in search of any and all defects. A defect is a stain, a badly dyed spot, a hole, a missing fringe, etc., each occurrence counts as a distinct defect. Here are data on 12 sample towels.

Towel	1	2	3	4	5	6	7	8	9	10	11	12
Number of defects	2	1	3	0	1	4	0	1	3	2	3	1

- i) What type of control chart should be used here? Why?
 - ii) What is the centerline of the chart?
 - iii) What is the lower control limit? The upper control limit?
 - iv) What statistic should be plotted on the control chart for each sample?
 - v) Draw the control chart on a piece of graph paper.
 - vi) Is this system under control?
- What should the quality control engineer do?

[10]

OR

3. Differentiate between Quality in Manufacturing sector and Service Sector. Give a brief description on Acceptance Sampling. [10]

4. How does marketing and sales plays crucial role in TQM? [10]

OR

5. How does customer play a crucial role in TQM? [10]

6. How to Implement TQM in an organization? [10]

OR

7. Describe the transition from traditional to TQM approach. [10]

8. What is the use of quality cost information? Where do you obtain each quality cost? [10]

OR

9. What is quality management? How do you measure Quality cost? [10]

10. Describe on ISO 9000. [10]

OR

11. Describe the benefits of ISO 9000 to an Organization. [10]

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