

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2023

B.Tech- VI Semester (All Branches)

COURSE CODE (CREDITS):18B1WHS631(03)

MAX. MARKS: 35

COURSE NAME: Quality Management

COURSE INSTRUCTORS: Triambica Gautam

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make suitable numeric assumptions wherever required for solving problems.

Q1. Explain the concept of benchmarking in context of improving the functioning of the Municipal Corporation of your city.

CO 3[5]

Q2. What is the need of quality certification for any modern organization? Explain with help of suitable examples.

CO 4[5]

Q3. JC India faced the problem of a long delivery time schedule; 69 days. The route followed was US, Singapore, India, which cost the company lost time and more cost, with the use of many freight agencies in between resulting in more paper work and hassles. 9% of the CIF was involved in transportation from US to Singapore, and additional 4% from Singapore to India, 5% for handling charges. Sigma level was less than 1, 69% of chances of failure. It was decided to drop Singapore from the route, and make transportation directly from US to India. Used a single freight agency. Delivery time reduced to 48 days, more than 10% reduction in freight costs. Modified process is subject to vigil at regular intervals of time.

Evaluate the above situation according to the DMAIC methodology for six sigma. Could the reduction in delivery time be done in a better manner? Why or why not?

CO 2[3+2]

Q4. Define the characteristics of a Quality Leader. How can quality management be made effective by exercise of leadership?

CO 3[2+3]

Q5. Write short notes on : a) Quality circles b) Ishikawa's Fishbone Diagram c) Quality Assurance.

CO 1[2*3=6]

Answer questions 6 and 7 based on the following case study.

Martha couldn't help but notice the various grimaces on her employee's faces as she gave out instructions that morning. She carefully explained in which order the windows should be cleaned and which safety harnesses they should use. She decided to improve their attitude with a promise. "Hey," she told her six-person crew, "if you do a good job, tomorrow's coffee is on me." She had expected a cheer or at least a few smiles but all she got was bored looks and rolled eyes. Martha decided to just let it go and get on with the workday. She couldn't believe how different her work experiences were last summer and this summer. She had worked for exactly the same company this year doing the same job, so she had no idea why things were turning out so differently.

Martha was a site supervisor for a window washing company that operated in the summer months, employing significant numbers of students. It was her job to direct and train new hires, plan the day's work, assign tasks, and make sure everyone complied with safety regulations. She also helped with the actual work. Martha had been given the supervisory role after her first year of college, after having worked there for three summers while in high school.

Her first summer as a site supervisor had been great! She had had a team of six high school students aged 15 and 16, four female and two male, for most of whom this was their first real job. Many of them were unfamiliar with basic safety gear and were happy to listen to her advice about the best way to complete a job. This first crew were generally a good bunch, but they tended to get distracted and goof off. Martha had found it easy to minimize this by checking on them regularly (sometimes using what she called her "mom voice" to remind them to get back to work), and offering small rewards like free pop and coffee.

Her second summer she had been assigned to a level 2 crew. Such crews took on the more difficult assignments. For example, they would wash windows at multi-storey, sheer office towers, whereas other teams focused on suburban homes. Her level 2 crew consisted of college and university students who had worked there a minimum of two summers previously and had also taken a specialized ropes and harnesses course to learn about safety while cleaning skyscrapers. The average age was 21 and her crew included four males and two females. Pleased by her success the previous year, Martha had done all the same things. She gave full and complete directions each morning, she used her "mom voice" when she felt someone wasn't performing, and she offered small rewards. Yet her team wasn't responding the same way at all, and they didn't seem to like or respect her much.

Q6. How can the same leader and leadership style lead to such difference in results in an organization?

CO 3[5]

Q7. Describe how the above problem of leadership can lead to poor quality of products and services in any organization.

CO 3[4]