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# KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR THIRD YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (BUSINESS ADMINISTRATION)

> Date: 9<sup>th</sup> August, 2023 Time: 2.30pm –4.30pm

# **KGM 401 - IMPLEMENTING TOTAL QUALITY**

### **INSTRUCTIONS TO CANDIDATES**

## ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

## **QUESTION ONE (30 MARKS)**

#### **CASE STUDY: TOYOTA**

Toyota Motor Corporation is renowned for its commitment to quality production and continuous improvement. The company's success can be attributed to its Toyota Production System (TPS), also known as "lean production." TPS is a comprehensive management philosophy that emphasizes waste reduction, efficient processes, and employee empowerment. One of the key components of TPS is the concept of "jidoka," which means "automation with a human touch." Jidoka focuses on building quality into the production process by empowering employees to stop the production line if they identify any defects. This enables problems to be addressed immediately, preventing the production of defective products and ensuring high quality. Toyota also employs the "just-in-time" (JIT) production system, which aims to eliminate waste and reduce inventory.

JIT enables Toyota to produce vehicles based on customer demand, minimizing the need for large inventories and associated costs. By maintaining a lean inventory, Toyota can respond quickly to market changes and customer preferences. Furthermore, Toyota emphasizes the importance of employee involvement and continuous improvement. The company encourages all employees, regardless of their position, to contribute ideas for process improvement. This approach fosters a culture of innovation and continuous learning, ensuring that Toyota stays ahead in terms of quality and efficiency.

Overall, Toyota's quality production approach has resulted in several benefits, including reduced defects, increased customer satisfaction, and improved efficiency. By prioritizing quality and continuous improvement, Toyota has established itself as a leader in the automotive industry. Required:

- a) Explain measures Toyota company is using to maintain quality production? (6 Marks)
  b) Describe the significance of jidoka in Toyota's production process? (6 Marks)
- c) Explain the just-in-time (JIT) production system and its benefits for Toyota. (6 Marks)

- d) Suggest benefits of continuous improvement to Toyota? (6 Marks)
- e) Discuss the various types of inspection Toyota can adopt to achieve quality objectives?

(6 Marks)

## **QUESTION TWO (20 MARKS)**

- a) Total Quality Management (TQM) is a customer-oriented process and aims for continuous improvement of business operations. Highlight challenges experienced by companies when implementing TQM (4 Marks)
- b) Discuss the various quality management principles adopted by modern competitive companies (8 Marks)
- c) Benchmarking is a process of comparing an organization's performance or processes against those of its competitors or best-in-class companies in its industry. Describe the various types of benchmarking as applicable in TQM (8 Marks)

## **QUESTION THREE (20 MARKS)**

a) Outline characteristics of organizations committed to TQM culture.

(4 Marks)

b) The cost of quality is a concept that refers to the total cost of all activities and resources that are used to prevent defects, errors, or other quality issues in products or services. Explain the various types of costs experiences by organizations when implementing TQM culture

(8 Marks)

c) Quality control (QC) is a process used by organizations to ensure that their products or services meet or exceed customer expectations in terms of quality. Examine benefits of quality control to modern competitive organizations (8 Marks)

#### **QUESTION FOUR (20 MARKS)**

a) Highlight bottlenecks of quality improvement in organizations

(4 Marks)

- b) Six Sigma is a data-driven methodology used to improve the quality of products and services by minimizing defects and reducing variability in processes. Discuss benefits attributed to organizations committed to Six Sigma Approach (8 Marks)
- c) Quality improvement is the process of identifying and implementing changes to improve the quality of products, services, processes, and systems. Examine the various types of quality organizations committed to TQM culture should assess continuously

(8 Marks)

## **QUESTION FIVE (20 MARKS)**

a) Highlight emerging issues and trends in TQM

(4 Marks)

b) Quality assurance (QA) is a process of ensuring that a product or service meets the required quality standards. Elaborate the various ways top managers can promote quality culture in organizations (8 Marks)

c)	Examine various ways organizations can adopt to overcome challenges associated implementing TQM	with (8 Marks)