TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES VISAYAS
Capt. Sabi St., City of Talisay, Negros Occidental

OFFICE OF THE COLLEGE DEAN

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College of Engineering Technology
Computer Engineering Technology Department
(End-User)

PRELIM EXAM
(Term)

TE 2 –TOTAL QUALITY
(Subject Code and Descriptive Title)

1ST TERM, 2023-2024
(Term) (SY)

Score: 60

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Instructor: RODELIN TOLENTINO Proctor: _____ Date: 10/1/2023

Instructions: Read the instructions carefully. No Erasures.

[50 pts.]

TEST I: **Explain Briefly**. **Ten points each**

1. Quality Management with case study
   - is a process that ensures that an organization's products or services meet the desired level of quality. It involves the management of quality at every level of the organization, including suppliers, production, and customers. One example of a company that uses Total Quality Management (TQM) is Coca-Cola. The company's TQM system allows it to manage quality at every level of the organization, which helps it to retain/regain competitiveness and achieve increased customer satisfaction
2. Quality Assurance with case study
   - is a process that ensures that a product or service meets the desired level of quality before it is delivered to the customer. It involves the establishment of standards and guidelines for quality, as well as the monitoring and evaluation of products or services to ensure that they meet these standards. One example of a company that uses Quality Assurance is Toyota. The company's Quality Assurance system involves the use of statistical process control (SPC) to monitor and evaluate its production processes, which helps it to identify and correct problems before they become major issues
3. Quality Control with case study
   - is a process that ensures that a product or service meets the desired level of quality. It involves the inspection and testing of products or services to ensure that they meet the established standards. One company that uses Quality Control in its production process is Coca-Cola, Coca-Cola uses both Quality Control (QC) and Quality Assurance (QA) throughout its production process. QC mainly focuses on the production line itself, whereas QA focuses on its entire operations process and related functions, addressing potential problems very quickly
4. Explain the importance of a quality management system (QMS) in ensuring consistent product or service quality. Discuss key elements and benefits of implementing a QMS in an organization.
   - A Quality Management System (QMS) is a formalized system that documents policies, processes, responsibilities, and procedures to meet customer requirements as well as compliance with regulatory standards. Implementing a QMS in an organization can provide numerous benefits, including operational consistency, improved productivity, reduced costs, better service delivery, improved customer satisfaction, enhanced reputation, increased efficiency, better decision making, and sustainable growth.

5. Explain briefly the concept of Kaizen of total quality management.
   - Kaizen, a concept within Total Quality Management (TQM), means continuous improvement. It involves making small, ongoing improvements in processes, products, or services. Employees at all levels are encouraged to identify problems and suggest solutions, fostering a culture of engagement and empowerment. Kaizen aims to reduce waste, eliminate defects, and enhance customer satisfaction through regular review and adjustment of processes. It's a powerful approach for organizations to stay competitive and improve over time.

Test II: Practical Application ***[10 pts.]***

1. Imagine you are a software manager tasked with implementing a quality control process for a software development project. Outline the specific quality control activities and methods you would employ throughout the project lifecycle to ensure a high-quality end product.

   - Implementing a robust quality control process in software development is crucial for delivering a high-quality end product. Here's an outline of specific quality control activities and methods to employ throughout the project lifecycle:

     1. **Requirements Phase:** Review and validate project requirements, create prototypes, and establish traceability.
     2. **Design Phase:** Review software designs, enforce coding standards, and use static code analysis tools.
     3. **Development Phase:** Conduct code reviews, automated testing, and continuous integration.
     4. **Testing Phase:** Perform functional, regression, and user acceptance testing.
     5. **Deployment Phase:** Use staging environments and perform performance testing.
     6. **Post-Deployment:** Implement monitoring, bug tracking, and a patch/update strategy.
     7. **Documentation and Knowledge Sharing:** Maintain documentation and encourage knowledge sharing.
     8. **Continuous Improvement:** Hold retrospectives and establish feedback loops for ongoing enhancement.