



# **SNS COLLEGE OF TECHNOLOGY**

Vazhiyampalayam, Coimbatore, Tamil Nadu, 641035

**An Autonomous Institution**

**Approved by AICTE New Delhi & Affiliated to Anna University Chennai**

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## **DEPARTMENT CIVIL ENGINEERING**

### **19CEB302 - CONSTRUCTION MANAGEMENT**

#### **III YEAR / V SEMESTER**

#### **Unit 5 : QUALITY AND SAFETY MANAGEMENT**

#### **Topic 3 : Quality Assurance**





# Quality Assurance



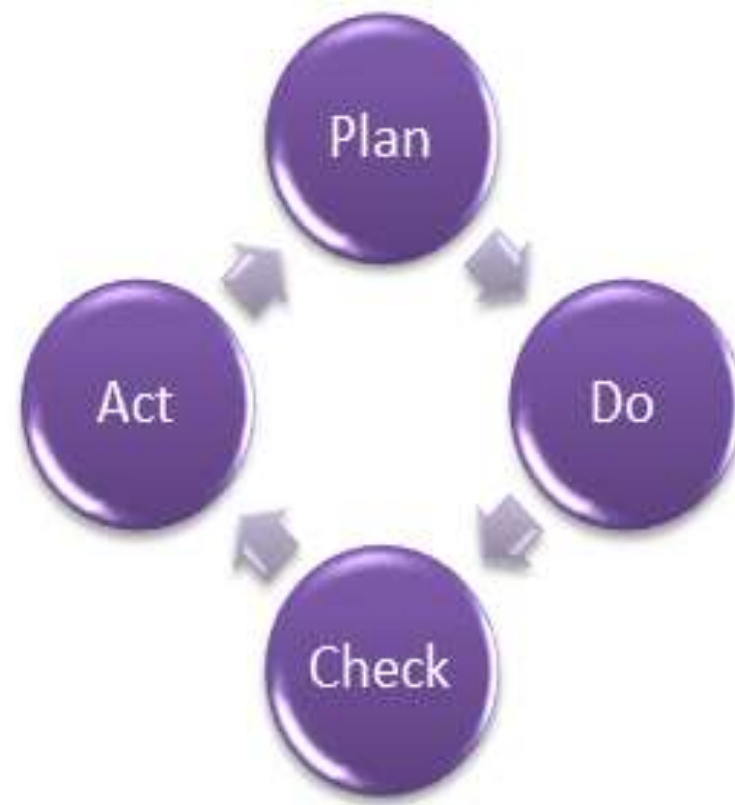
**Quality** is extremely hard to define, and it is simply stated: “Fit for use or purpose.” It is all about meeting the needs and expectations of customers with respect to functionality, design, reliability, durability, & price of the product.

**Assurance** is nothing but a positive declaration on a product or service, which gives confidence. It is certainty of a product or a service, which it will work well. It provides a guarantee that the product will work without any problems as per the expectations or requirements.



# Quality Assurance

Quality assurance (QA) is a way of preventing mistakes and defects in manufactured products and avoiding problems when delivering products or services to customers; which ISO 9000 defines as “Part of quality management focused on providing confidence that quality requirements will be fulfilled”.





# Quality Assurance



- Quality assurance (QA) is any systematic process of determining whether a product or service meets specified requirements.
- QA establishes and maintains set requirements for developing or manufacturing reliable products.
- A quality assurance system is meant to increase customer confidence and a company's credibility, while also improving work processes and efficiency, and it enables a company to better compete with others.





# Quality Assurance



- The [ISO](#) (International Organization for Standardization) is a driving force behind QA practices and mapping the processes used to implement QA.
- QA is often paired with the [ISO 9000](#) international standard.
- Many companies use ISO 9000 to ensure that their quality assurance system is in place and effective.
- The concept of QA as a formalized practice started in the manufacturing industry, and it has since spread to most industries, including software development.



# Quality Assurance



## Importance of Quality Assurance (QA)

- Quality assurance helps a company create products and services that meet the needs, expectations and requirements of customers.
- It yields high-quality product offerings that build trust and loyalty with customers.
- The standards and procedures defined by a quality assurance program help prevent product defects before they arise.



# Quality Assurance



**Quality assurance checklist**

- Establish** SQA facilitation
- Implement** a quality management process
- Conduct** a process review
- Create** a report on the project status
- Perform** a process compliance review
- Identify** process improvement areas
- Create** process trainings

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# Quality Assurance



## QA vs. QC

- Although the two concepts share similarities, there are important distinctions between them.
- In effect, QA provides the overall guidelines used anywhere, and QC is a production-focused process – for things such as inspections. QA is any systematic process for making sure a product meets specified requirements, whereas QC addresses other issues, such as individual inspections or defects.
- In terms of software development, QA practices seek to prevent malfunctioning code or products, while QC implements testing and troubleshooting and fixes code.

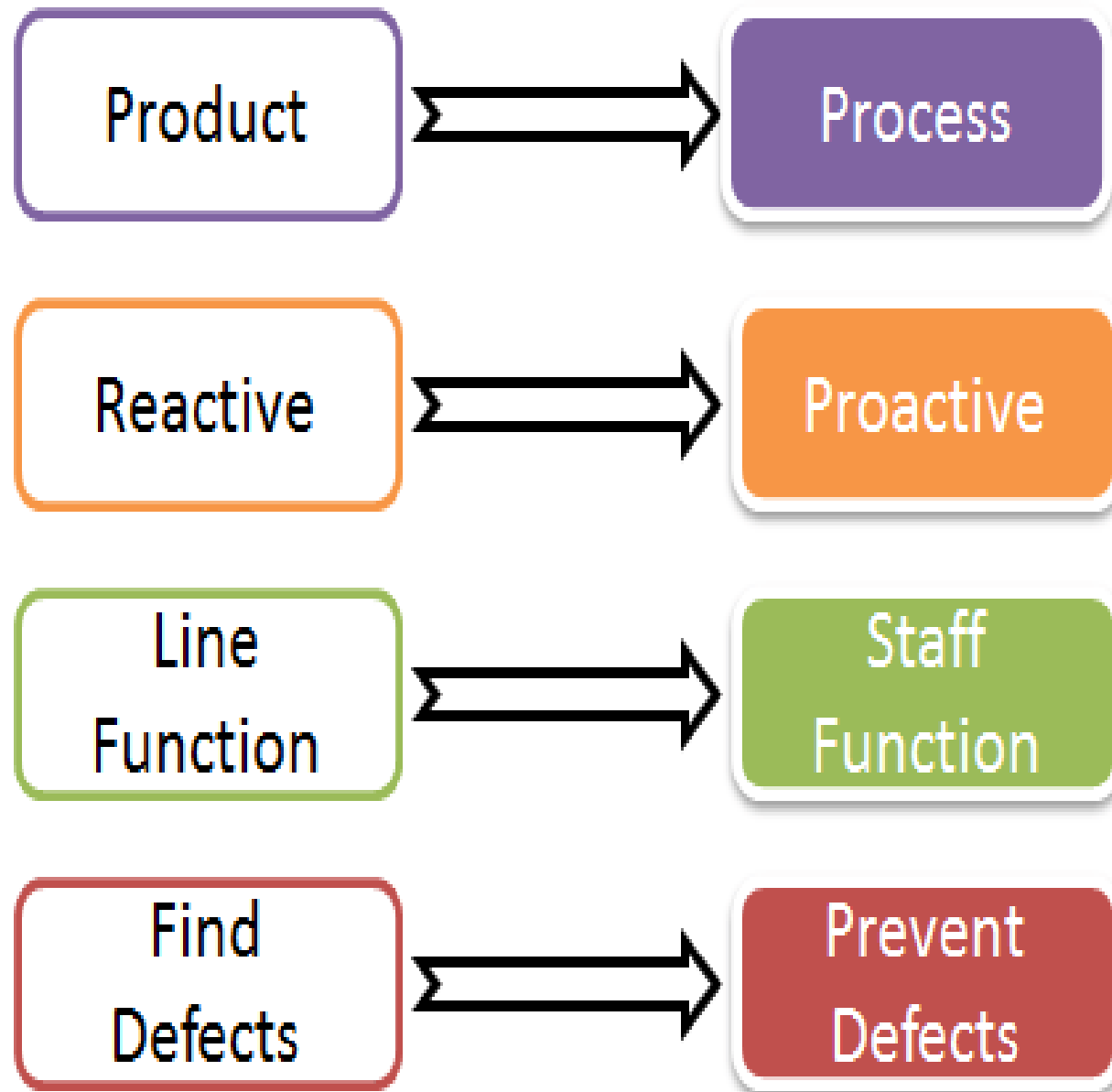




# Quality Assurance



## QC Vs QA



Quality Control Activities	Quality Assurance Activities
Walkthrough	Quality Audit
Testing	Defining Process
Inspection	Tool Identification and selection
Checkpoint review	Training of Quality Standards and Processes



# Quality Assurance



## Quality Assurance Functions:

There are 5 primary Quality Assurance Functions:

**Technology transfer:** This function involves getting a product design document as well as trial and error data and its evaluation. The documents are distributed, checked and approved

**Validation:** Here validation master plan for the entire system is prepared. Approval of test criteria for validating product and process is set. Resource planning for execution of a validation plan is done.

**Documentation:** This function controls the distribution and archiving of documents. Any change in a document is made by adopting the proper change control procedure. Approval of all types of documents.

**Assuring Quality of products**  
**Quality improvement plans**



# Quality Assurance



## Conclusion:

Quality Assurance is to check whether the product developed is fit for use. For that, Organization should have processes and standards to be followed which need to be improved on a periodic basis. It concentrates mainly on the quality of product/service that we are providing to the customers during or after implementation of software.



**Thank you ....**