**Assignment-3**

**Quality Assurance and Quality Control**

1. What is the difference between verification and validation ?

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| **Verification** | **Validation** |
| Are we building the system right? | Are we building the right system? |
| Verification is the process of evaluating products of a development phase to find out whether they meet the specified requirements. | Validation is the process of evaluating software at the end of the development process to determine whether software meets the customer expectations and requirements |
| The objective of Verification is to make sure that the product being develop is as per the requirements and design specifications | The objective of Validation is to make sure that the product actually meet up the user’s requirements, and check whether the specifications were correct in the first place. |
| Following activities are involved in Verification: Reviews, Meetings and Inspections. | Following activities are involved in Validation: Testing like black box testing, white box testing, gray box testing etc. |
| Verification is carried out by QA team to check whether implementation software is as per specification document or not. | Validation is carried out by testing team. |
| Execution of code is not comes under Verification. | Execution of code is comes under Validation. |
| Verification process explains whether the outputs are according to inputs or not. | Validation process describes whether the software is accepted by the user or not. |
| Verification is carried out before the Validation. | Validation activity is carried out just after the Verification. |
| Following items are evaluated during Verification: Plans, Requirement Specifications, Design Specifications, Code, Test Cases etc, | Following item is evaluated during Validation: Actual product or Software under test. |
| Cost of errors caught in Verification is less than errors found in Validation. | Cost of errors caught in Validation is more than errors found in Verification. |
| It is basically manually checking the of documents and files like requirement specifications etc. | It is basically checking of developed program based on the requirement specifications documents & files. |

1. What is the difference between quality and testing ?

**Quality** : Quality means meeting the customer requirements for the first time and

for the every time .this is much more that absence of defects which allows us to meet the requirements.

**Testing** is the process of evaluating a system or its component with the intent to find whether it satisfies the specified requirements or not. Testing is executing a system in order to identify any gaps, errors, or missing requirements in contrary to the actual requirements.

1. Quality improvement programs may require the product itself to be changed.

a. True

b. False

1. The basis upon which adherence to policies is measured is

a. Standard

b. Requirement

c. Expected result

d. Value

e. All of the above

f. None of the above

1. During an inspection, inspectors normally make suggestions on correcting the defects found.

a. True

b. False

1. The term “benchmarking” means

a. Comparing with past data from your organization

b. Comparing with the results of a market survey

c. Comparing with the results of a customer survey

d. None of the above

1. The concept of continuous improvement as applied to quality means:

a Employees will continue to get better

b. Processes will be improved by a lot of small improvements

c. Processes will be improved through a few large improvements

d. Improved technology will be added to the process, such as acquiring  CASE tools

e. The functionality of the products will be enhanced

1. The following can be considered to measure quality:

a. Customer satisfaction

b. Defects

c. Rework

d. All of the above

e. None of the above

1. Quality assurance is a function responsible for

a. Controlling quality

b. Managing quality

c. Inspections

d. Removal of defects

1. **How much testing is enough ?**  
     
   a. This question is impossible to answer  
   b. This question is easy to answer  
   c. The answer depends on the risk for your industry, contract and special requirements  
   d. This answer depends on the maturity of your developers