**ASSIGNMENT – 2**

**Q1.What is software Quality Assurance?**

Ans. **Software quality assurance** (**SQA**) consists of a means of monitoring the [software engineering](https://en.wikipedia.org/wiki/Software_engineering) processes and methods used to ensure quality. The methods by which this is accomplished are many and varied, and may include ensuring conformance to one or more standards, such as [ISO 9000](https://en.wikipedia.org/wiki/ISO_9000) or a model such as [CMMI](https://en.wikipedia.org/wiki/CMMI).

SQA encompasses the entire [software development](https://en.wikipedia.org/wiki/Software_development) process, which includes processes such as requirements definition, [software design](https://en.wikipedia.org/wiki/Software_design), [coding](https://en.wikipedia.org/wiki/Computer_programming), [source code control](https://en.wikipedia.org/wiki/Revision_control), [code reviews](https://en.wikipedia.org/wiki/Code_review), [software configuration management](https://en.wikipedia.org/wiki/Software_configuration_management), [testing](https://en.wikipedia.org/wiki/Software_testing), [release management](https://en.wikipedia.org/wiki/Release_management), and product integration.

**Q2.What are the SQA Principles?**

Ans. The following are some of the most powerful principles that can be used for proper execution of software quality assurance:-

**1**.**Feedback:-** An SQA principle that uses rapid feedback is assured of success.

**2. Focus on critical factor:-** This principle has so many meanings; first it just means that some of the factors of the software being developed are not as critical compared to other. That means SQA should be focused on the more important matters.

**3**. **Multiple Objectives**:- At the start of the SQA planning, the team should have more than one objective.

**4**. **Evolution**:-Evolution is setting the benchmark in each development.

**5**. **Quality Control:-** Quality Control is the pillar for Software Quality Assurance. Everything needs to have quality control – from the start to the finish.

**6.****Process Improvement:-** Process improvement fosters the development of the actual treatment of the project.

**Q3.What are the benefits of SQA?**

Ans. SQA has a host of benefits. It ensures that that software built as per SQA procedures are of specified quality. SOA helps to

1) Eliminate err for dfors when they are still inexpensive to correct

2) Improves the quality of the software

3) Improving the process of creating software

4) Create a mature software process.

**Q4.What is the need of SQA?**

Ans.1) Defect Reduction

2) Maintaining the quality of the project as per the specification and business requirement

3) Defect Prevention

4) Risk Identification

5) Testing the project failure observation and bugs removal

6) Defect tracking techniques and methods.

**Q5.What is the Budget of SQA?**

Ans. Budget of SQA is divided into (50-50%).

50% is divided into developer and 50% is divided into tester.

**Q6.What is Quality Assurance?**

Ans. Quality Assurance popularly known as QA, is an activity to ensure that an organization is providing the best possible product or service to customers. QA focuses on improving the processes to deliver Quality Products to the customer. An organization has to ensure , that processes are efficient, and effective as per the quality standards defined for software products.

Quality assurance has a defined cycle called PDCA cycle or Deming cycle. The phases of this cycle are:-

* Plan
* Do
* Check
* Act