**ASSIGNMENT -2**

**SQA**

**Q1. What is SQA?**

**Ans.** SQA ensure the development of high-quality software. SQA practices are implemented in most types of software development. In a broader sense, SQA incorporates and implements software testing methodologies to test software. Rather than checking for quality after completion, SQA processes tests for quality in each phase of development until the software is complete. With SQA, the software development process moves into the next phase only once the current/previous phase complies with the required quality standards. SQA generally works on one or more industry standards that help in building software quality guidelines and implementation strategies.

**Q2. Principles of SQA**

**Ans.** SQA is committed to quality assuring all its qualifications to ensure public recognition and credibility through the maintenance of standards. SQA quality assurance is based upon the following principles: ¨ the SQA assessment and quality assurance system should be understandable to stakeholders, effectively administered, publicly accountable and cost effective to operate ¨ qualifications should be accessible to all candidates who have the potential to achieve them ¨ the criteria which define the performance required of candidates for them to achieve qualifications should be appropriate to purpose, explicit and in the public domain ¨ each unit, course and group award should be unique and necessary, and should comply with the relevant qualification specification ¨ assessments should be valid, reliable and practicable, and assessment results should be in line with qualification criteria ¨ qualifications should be offered in centres which have the resources and expertise to assess candidates against the qualification’s criteria ¨ staff in centres should be provided with effective support in assessing candidates for certification ¨ responsibility for quality assurance should be devolved to centres where this is consistent with the maintenance of national standards

**Q3. Benefits of SQA**

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

1. Eliminate errors 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. Need of SQA**

**Ans.** A Quality Assurance system helps a company identify weaknesses and inconsistencies in the service or production at any project stage. It is a complex activity that has its place within the software development process. Quality assurance is most effective when implemented from the very beginning.

**THE MAIN PURPOSE OF QA** Software QA consists of ways to control software engineering processes and methods used to ensure [**quality**](https://codeswat.com/blog/delivering-quality-service-to-customers-the-inside-process/). It has been proven effective to prevent system failures and reduce costs on the whole development process. The Software Quality Assurance process encompasses different activities and helps in:

1.Growing confidence in the system  
2. Preventing weaknesses and defects  
3. Providing comprehensive information about the level of quality  
4. Defining the process requirements  
5. Testing the system’s usability and operability  
6. Providing an understanding between contractor and customer  
7. All in all, software quality assurance is implemented to ensure that the final product complies with set requirements and standards.

**Q5. Budget of SQA**

**Ans.** 51 million GBP

Corporate management shall define criteria about the relative size of SQA budgeting as a function of its task profile and the budgeting sources for SQA. SQA budgeting shall be part of the Request For Proposal (RFP) cost evaluation according to corporate policy and not dependent on the goodwill of project offices. Corporate policy shall state that SQA approval of RFP is required. The sources of SQA shall be such that the independence of SQA will be guaranteed. In particular, corporate management shall allow overhead budgeting for SQA organization, research and training to build SQA capability on a continuous basis rather than subject to a one-time project.

**Q6. What is Quality Assurance?**

**Ans.** Often used interchangeably with quality control (QC), it is a wider concept that covers all policies and systematic activities implemented within a quality system. QA frameworks include

1. determination of adequate technical requirement of inputs and outputs
2. certification and rating of suppliers,
3. testing of procured material for its conformance to established quality, performance, safety, and reliability standards
4. proper receipt, storage, and issue of material
5. audit of the process quality
6. evaluation of the process to establish required corrective response
7. audit of the final output for conformance to (a) technical (b) reliability, (c) maintainability, and (d) performance requirements