T.Y. B.Tech CSE(3)
Roll No. - 53

Subject - Software Engineering
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I

1] b

2] a

3] d

4] c

5] a

6] c

II

1] i] System Requirement

i] A Software Requirement Specification shows what the software is supposed to do as well as how it is supposed to perform. It is written down before the actual software development work starts.

ii] Need of SRS

1] An SRS establishes the basis for agreement between the client and the supplier on what the software product will do.

2] SRS provides reference for validation of final product

3] A high quality SRS is a prerequisite to high quality software.

4] A high quality SRS reduces development cost.

5] It establishes basis for agreement between client and supplier on what the software will do.

2] i] Components of SRS

1] Functionality: What the software will do.

2] External interfaces: Interaction of software, hardware

3] Performance: Response Rate, Recovery Rate, etc.

4] Quality Attributes: Non-functional factors like security, safety, portability.

5] Design constraints.

6] Completeness

ii] Characterestics.

1] Correct

SRS is correct when all users requirements are stated in requirements document.

2] Unambiguous

SRS is unambiguous when every stated requirement has only one interpretation.

3] Complete

SRS is complete when the requirement clearly define what the required to do.

4] Modifiable

Requirements of user change, hence requirements document.

5] Traceable

SRS is traceable when source of each requirement is clear and facilitates the reference of each requirement.

6] Verifiable

The requirements are verified.

7] Consistent

The requirements should be consistent.

III

1] Role of Software Architecture

i] Understanding and Communication

An architecture description is primarily to communicate the architecture to its various stakeholders, which include the uses who will use the system.

ii] Reuse

Architecture description can help software reuse. Reuse is considered one of the main techniques by which productivity can be improved, thereby reducing cost of software.

iii] Construction and Evolution.

Architecture deivides the system in 2 parts, Some can be used for Construction.

iv] Analysis.

It is a highly desirable if some important properties about the behavior of the system

ii] Uses

Architecture gives the ability to communicate about design decisions the system is implement, when they are still relatively easy to adapt. It helps in risk management. Software archecture helps to reduce risk and chance of failure. It enables cost reduction.

3] Architecture Views

i] Logical View

The services that the system provides to end-user

ii] Development view

The system from programmer's perspective, concerned with software management.

iii] Process View

The process view deals with the dynamic aspects of the system, explains the system processes and how they communicate.

iv] Physical View

It gives the system engineer's point-of-view.

v] Scenarios.

All the use cases.