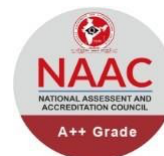




KONERU LAKSHMAIAH EDUCATION FOUNDATION
(Deemed to be University estd, u/s, 3 of
the UGC Act, 1956)(*NAAC Accredited*
"A++" Grade University)
Green Fields, Guntur District, A.P., India – 522502
Department of Computer Science and Engineering
(DST - FIST Sponsored Department)



B. Tech. III CSE PROGRAM A.Y.2024-25 ODD Semester

COURSE CODE – 22SMD3101R

SOFTWARE Verification and Validation

CO1

HOME ASSIGNMENT-1

Question 1:

Explain the different stages of the software testing lifecycle (STLC). How do these stages align with the software development lifecycle (SDLC)? Discuss how Agile methodology impacts the testing process compared to traditional methodologies like Waterfall.

Question 2:

Define a test case and explain its significance in the testing process. Develop test cases for a sample application (e.g., a simple calculator or login system), and explain how you would manage and prioritize these test cases during the testing phase.

Question 3:

Discuss the role of human error in software testing. How can human error lead to defects, and what strategies can be implemented to minimize these errors during the testing and debugging phases?

Question 4:

Differentiate between verification and validation in the context of software testing. Provide examples to illustrate when each should be applied during the software development process.

•Question 5:

Define the terms failure, error, fault, and defect. Provide real-world examples of each in a software context and discuss how they are identified and managed within a testing framework. How do test metrics help in tracking and preventing defects?