**1.Discuss the significance of understanding different types of testing methodologies in ensuring software quality.**

**2.Compare and contrast manual testing and automated testing.**

**3.Explain when it is appropriate to use manual testing versus automated testing, and vice versa.**

**4.Define functional testing and discuss its purpose in software testing.**

**5.Describe different techniques used in functional testing**

**6.Define non-functional testing and explain its importance in assessing the quality attributes of software.**

**7.Discuss common types of non-functional testing, including performance testing, security testing, and usability testing.**

**8.Explain the concept of regression testing and its role in software maintenance**

**9.Define integration testing and discuss its significance in verifying interactions between software components.**

**10.Define system testing and discuss its purpose in evaluating the entire software system.**

**11.Define user acceptance testing (UAT) and explain its role in validating software from an end-user perspective.**

**12.Compare and contrast smoke testing and sanity testing.**

**13.Explain when each type of testing should be conducted during the software development lifecycle.**