Question Paper Code	12166

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023
Sixth Semester
Information Technology
20ITEL601 - SOFTWARE TESTING
(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART-A (10 × 2 = 20 Marks)
Answer ALL Questions

Marks, K-Level, CO

1. What is the role of test engineer in software development organization? — *2,K1,C01*

2. Differentiate Verification and Validation. — *2,K4,C01*

3. Write short note on black box testing. — *2,K1,C02*

4. What are Error, Defect, Bug and Failure? — *2,K1,C02*

5. List out the Components of testing. — *2,K1,C03*

6. What are the integration strategies? — *2,K1,C03*

7. Name the common web-based test tools. — *2,K1,C04*

8. What are the four steps involved in selecting the appropriate testing tool? — *2,K2,C04*

9. What are the challenges in test automation? — *2,K2,C05*

10. Mention the types of testing amenable to automation. — *2,K1,C05*

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11. a) (i) Discuss about writing a policy for software testing. — *8,K1,C01*

    (ii) What are the areas in which the management support is needed for Software testing? — *5,K4,C01*

OR

    b) Briefly describe about testing maturity model with a neat diagram. — *13,K2,C01*

12. a) What are the differences between static testing and structural testing? Explain about static testing tools and dynamic testing tools in detail with suitable examples. — *13,K2,C02*

OR

    b) Explain various white box testing strategies. — *13,K2,C01*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

13. a) (i) What is the importance of security testing and explain consequences of security breaches? Also write various areas which have to be focused on during security testing. *8,K2,C03*

    (ii) State the need for integration testing in procedural code. *5,K2,C03*

OR

   b) Explain the different integration testing strategies for procedures and functions with suitable diagrams. *13,K2,C03*

14. a) Describe the components of test plan. Give examples. *13,K2,C04*

OR

   b) Explain the various generations of automation and required skills for each. *13,K4,C04*

15. a) What are the differences in the requirements gathering for Performance testing and for functional testing like black box testing? Discuss on the basis of sources used, methods used, tools used and skill sets required. *13,K4,C05*

OR

   b) Discuss about data flow test model in detail. *13,K1,C05*

PART - C (1 × 15 = 15 Marks)

16. a) What is Test ware architecture and what are the key factors to be resolved? *15,K1,CO6*

OR

   b) Determine and prepare the test cases for acceptance usability and accessibility testing with examples. *15,K4,CO6*