F – 57362

Register No. | | | | | | | | |

BE Degree Examination December 2022

Seventh Semester

Computer Science and Engineering

18CSE17 – SOFTWARE QUALITY AND TESTING

(Regulations 2018)

Time: Three hours | Maximum: 100 marks

Answer all Questions

Part – A (10 × 2 = 20 marks)

1. Identify the importance of quality in an organization. [CO1,K1]
2. List the characteristics of formal inspection. [CO1,K1]
3. Assume that you are assigned as a testes for a project which contains 80 in-process defects and 40 customer reported defects in 5200 LOC. Calculate defect injection rate. [CO2,K1]
4. Write the steps in measurement process activities. [CO2,K1]
5. State the need for testing. [CO3,K1]
6. Justify the statement "Too little testing is a crime, but too much testing is a sin". [CO3,K1]
7. Give example for requirements phase risk matrix. [CO4,K1]
8. What will be given as input to validation testing? [CO4,K1]
9. Write the guidelines to test web based system. [CO5,K1]
10. Identify functional vulnerabilities in testing software system security. [CO5,K1]

Part – B (5 × 16 = 80 marks)

11. a. i) How to ensure quality during SDLC phase? (8) [CO1,K2]

ii) Summarize the characteristics of four types of reviews. (8) [CO1,K2]

(OR)

b. i) Enumerate the benefits of reviews from different stakeholder perspective. (8) [CO1,K2]

ii) Identify the roles and responsibilities in a structured walkthroughs. (8) [CO1,K2]

12. a. i) Illustrate McCall's software quality factors model with neat sketch. (8) [CO2,K3]

ii) Elaborate the role of measurement in software life cycle. (8) [CO2,K2]

(OR)

b. i) Identify the metrics used for software maintenance. (8) [CO2,K2]

ii) How to apply Bohem model to ensure quality? (8) [CO2,K3]

13. a. i) Compare and contrast software verification and validation. (8) [CO3,K3]

ii) Elaborate Big Bang approach to testing with suitable example. (8) [CO3,K3]

(OR)

b. Enumerate the steps to create an environment supportive software testing. (16) [CO3,K3]

14. a. Draw the workbench for verification testing and explain the test performed during requirements phase. (16) [CO4,K3]

(OR)

b. How to build the test data to do validation testing? (16) [CO4,K3]

15. a. i) Enumerate the seven step process in using agile methods to improve software testing. (8) [CO5,K2]

ii) How to build a penetration-point matrix? (8) [CO5,K2]

(OR)

b. Illustrate the process of testing client/server systems. (16) [CO5,K2]

Bloom's Taxonomy Level	Remembering (K1)	Understanding (K2)	Applying (K3)	Analysing (K4)	Evaluating (K5)	Creating (K6)
Percentage	11	45	44	-	-	-