

- (b) Write a short note on test case and necessity of test case documentation. 6

OR

10. (a) What is robustness test ? Explain various reasonable tests which are involved in robustness test. 7
- (b) Give the significance of functionality test and also explain different categories of tests involved in it.6
11. (a) Explain the acceptance criteria of system installation and upgradation process. 7
- (b) Write about various views that are involved in assessing a software quality product. 6

OR

12. (a) Explain the acceptance criteria of competitive edge and usability in the development of software product. 7
- (b) Explain different categories of ISO-9126 quality characteristics of software product. 6

Faculty of Engineering & Technology
Seventh Semester B.E. (Infor. Tech.) (C.B.S.)
Examination
ELECTIVE-II : SOFTWARE TESTING AND
QUALITY ASSURANCE

Time—Three Hours]

[Maximum Marks—80

INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
- (2) Solve Question No. **1 OR** Questions No. **2**.
- (3) Solve Question No. **3 OR** Questions No. **4**.
- (4) Solve Question No. **5 OR** Questions No. **6**.
- (5) Solve Question No. **7 OR** Questions No. **8**.
- (6) Solve Question No. **9 OR** Questions No. **10**.
- (7) Solve Question No. **11 OR** Questions No. **12**.
- (8) Assume suitable data wherever necessary.
- (9) Illustrate your answers wherever necessary with the help of neat sketches.

1. (a) What is software testing ? Give a brief note on Unit, Integration and Regression testing. 7
- (b) Explain the sequence of testing activities performed by a test engineer in testing a program. 7

OR

2. (a) Explain the different sources of information for test case selection. 7
- (b) Discuss about the development and testing phases in the classical 'V'-model. 7
3. (a) Mention the advantages of using tools in testing. And also write about different kinds of tools that facilitate effective unit testing. 7
- (b) What is the difference between testing and debugging ? Explain different approaches followed for debugging in unit testing. 7

OR

4. (a) Explain different steps involved in Code Review process in case of unit testing. 7
- (b) Explain the scenario of Dynamic Unit Test environment in detail. 7
5. (a) What do you mean by a Control Flow Graph ? Explain complete statement coverage, complete branch coverage criteria with a suitable example. 7

- (b) Explain the process of generating test input data in control flow testing. 6

OR

6. (a) Draw a Control flow graph for binary search function and also specify the limitations of control flow based testing. 7
- (b) Explain about predicate coverage criteria concept in control flow test with an example. 6
7. (a) Explain different types of Data Flow Testing Criteria with a suitable example. 7
- (b) Discuss the advantages and disadvantages of Top-Down and Bottom-up techniques in System Integration Testing. 6

OR

8. (a) Explain the different approaches involved to perform in Integration Testing. 7
- (b) What is an anomaly ? Give a brief note on different types of data flow anomalies. 6
9. (a) Discuss the importance of regression testing when developing a new software release. What test cases from the test suite would be more useful in performing a regression test ? 7