

B.E. Seventh Semester (Information Technology) (C.B.S.)  
**Elective - II : Software Testing & Quality Assurance**

P. Pages : 2

Time : Three Hours



**NKT/KS/17/7505**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain following terms: 8
- i) Errors ii) Faults
- iii) Defects iv) Failures
- b) Explain central Issue is testing. 5
- OR**
2. a) Write short note on: 6
- i) Expected outcome. ii) Complete testing.
- b) How test Execution is monitored and measured? Explain. 7
3. a) Describe Dynamic unit test environment using diagram. 7
- b) What is debugging? Explain a debugging heuristic in detail. 7
- OR**
4. a) Write a detailed note on unit testing in extreme programming. 7
- b) Explain JUNIT : framework for unit testing. 7
5. Explain each path selection criteria in detail. 13
- OR**
6. a) Describe test data selection using example. 6
- b) Write a detailed note on paths in control flow graph. 7
7. a) Explain data flow graph in detail using example. 7

b) How comparison of data flow test selection criteria is performed? Explain.

6

**OR**

8. a) Describe steps involved in software ECO process along with diagram.

7

b) What is test plan for system integration?  
Explain contents of framework for SIT plan.

6

9. a) Describe various types of Robustness tests.

7

b) Explain in short Reliability testes, Regression tests and Documentation tests.

7

**OR**

10. a) Explain in detail functional specification based test case design.

6

b) What are the various levels of test execution.

4

c) Explain the necessity of test case documentation.

4

11. a) Explain in short user acceptance testing and Business acceptance testing.

6

b) Explain relationship between quality factors and criteria.

7

**OR**

12. a) Write a note on ISO 9126 Quality characteristics.

6

b) Explain client server testing and web application testing.

7

\*\*\*\*\*