B.E. (Computer Engineering) Eighth Semester (C.B.S.)
Elective - III : Software Testing & Quality Assurance

P. Pages : 2

Time : Three Hours

|||||| *1456* ||||||

Max. Marks : 80

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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.

1. a) Explain in detail different testing activities. **6**

b) What is software testing? Explain in brief unit testing and Integration Testing. **7**

OR

2. a) Explain the different sources of Information for test case selection. **7**

b) Explain in detail V-Model of testing. **6**

3. a) What is the difference between testing and debugging? Explain different approaches followed for debugging in unit Testing. **8**

b) List and explain any five unit testing tools. **6**

OR

4. a) Explain different steps involved in code Review Process in case of unit testing. **7**

b) Explain Mutation testing with proper example. **7**

5. a) How control flow graph is constructed? Explain with example **7**

b) What are the different path selection criteria? Explain any one in detail. **6**

OR

6. a) What are the limitation of control flow based testing? **7**

b) Explain the process of generating test input data for control flow testing. **6**

7. a) Draw a data flow graph for binsearch ( ) function given below **8**
   int binsearch (int x, int v[ ], int n)
   {
       int low, high, mid;
       low = 0;
       high = n – 1;
       while (low < = high){
       mid = (low + high) / 2;
       if (x < v [mid])
         high = mid – 1;
       else if (x> v[mid])
         low = mid + 1;
       else
         return mid;
       }
         return –1;}

   b) Explain type of intefaces and interface errors. **5**

OR

8. a) Write down the advantages and disadvantages of top-down techniques in system Integration Testing. **7**

   b) What are the different type of data flow anomalies? **6**

9. a) What are the advantages of identifying test categories? Enlist different type of system test. **7**

   b) Write short note on :- **6**
      i) Functionality test.
      ii) Stress test.

OR

10. a) Explain different level of test execution. **7**

   b) Explain different Test case design methods. **6**

11. a) Describe several acceptance criteria. **8**

   b) What is software quality? Why are Acceptance test case executed in two phases? **6**

OR

12. a) Explain five views of software quality. **5**

   b) Write in brief about ISO 9000 : 2000 standard. **5**

   c) Explain objective of Acceptance testing. **4**

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