

Roll No.

23073

M. Tech. 2nd Semester (CSE)

Examination – May, 2016

SOFTWARE VERIFICATION VALIDATION & TESTING

Paper : MTCE-608-A

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper.

No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions in total. All questions carry equal marks.

1. (a) What are the objectives of testing ? Why is the psychology of a testing person important ? 10
- (b) Discuss the limitation of testing. Why do we say that complete testing is impossible ? 10
2. (a) What is meant by test case design ? Discuss its objectives and indicate the steps involved in test case design. 10
- (b) Explain testing life cycle model. 10

23073-1100-(P-3)(Q-8)(16)

P. T. O.

3. (a) Differentiate between software verification and validation. How software verification and validation helps in improving software quality? 10

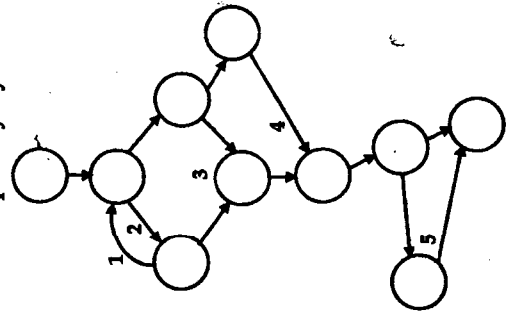
(b) Write notes on the following: 10

- (i) Verification of UI design
- (ii) Verification of HL design

4. (a) Explain state table based testing. 10

(b) Describe the equivalence class testing method. Compare this with boundary value analysis techniques. 10

5. (a) Consider a flow graph given in Fig. and calculate the cyclomatic complexity by all three methods: 10



(b) Write notes on the following: 10

- (i) Basic path testing
- (ii) Loop testing

6. Write notes on the following: 20

- (a) Inspection process
- (b) Static testing
- (c) Walk through process

7. Write notes on the following: 20

- (a) Recovery testing
- (b) Stress analysis
- (c) Coupling and Cohesion
- (d) Unit testing

8. (a) How debugging is different from testing? How we can reduce the no. of test cases? 10

(b) What is the importance of regression test selection? Discuss with help of examples. 10