

(3 hours)

Maximum Marks = 80

NB:

Question No. 1 is compulsory and solve any THREE questions from remaining questions

Assume suitable data if necessary

Draw clean and neat diagrams

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Q1. Attempt all                                                                                                                                                                   |       |
| a. What is Six Sigma?                                                                                                                                                             | 5     |
| b. Define each software testing terminology:<br>i) Failure, ii) Defect, iii) Error, iv) Testware v) Test oracle.                                                                  | 5     |
| c. Draw an architecture of Software Testing life cycle.                                                                                                                           | 5     |
| d. Explain mutation testing with an example.                                                                                                                                      | 5     |
| Q2. a. A program takes an angle as input within the range [0,360] and determines in which quadrant the angle lies. Design test cases using equivalence class partitioning method. | 10    |
| b. Compare black box and white box testing.                                                                                                                                       | 10    |
| Q3. a. Explain Regression Testing with example.                                                                                                                                   | 10    |
| b. What are software metrics? Explain in detail.                                                                                                                                  | 10    |
| Q4 a. Discuss the challenges in performing<br>(i) Agile Testing<br>(ii) Object-oriented testing.                                                                                  | 10    |
| b. What is automated testing? Why is it required?                                                                                                                                 | 10    |
| Q5 a. Elaborate V&V Model in detail.                                                                                                                                              | 10    |
| b. Explain Test case specification with its component and write test specification with any real time example.                                                                    | 10    |
| Q6 a. Explain ISO 9000:2000.                                                                                                                                                      | 10    |
| Q6 b. Explain goals of software testing.                                                                                                                                          | 10    |