

**Instructions**

1. Question ONE is compulsory
2. Attempt any three out of remaining five questions.
3. Assume appropriate data and state your reasons
4. Marks are given right of the every question

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|---|-----|
| 1(a) Differentiate between Exhaustive and Effective testing   | 5M  |
| 1(b) Define the following with example.   | 5M  |
| i) Failure ii) Fault iii) Error   |     |
| 1(c) Explain Life cycle of a bug.   | 5M  |
| 1(d) Differentiate between CFG and DFG.   | 5M  |
| 2(a) A program reads an integer number within the range [1,100] and determines whether it is a prime number or not. Design the test cases for this program using boundary value analysis. | 10M |
| 2(b) Justify how mutation testing is effective to check the quality of software with an example.  | 10M |
| 3(a) Draw the control flow graph and find the cyclomatic complexity for a program largest of three numbers.   | 10M |
| 3(b) Explain the different types of Incremental Integration Testing Methods.  | 10M |
| 4(a) Briefly explain prioritization techniques.   | 10M |
| 4(b) What is the need of software measurement? Explain different size metrics.  | 10M |
| 5(a) Create a case study on application of ISO 9000 framework to an educational institute.  | 10M |
| 5(b) Explain the guidelines for automated testing.  | 10M |
| 6. Write Short notes on   |     |
| (a) Issues in Object Oriented Testing.  | 5M  |
| (b) STLC.   | 5M  |
| (c) Challenges in Testing Data Ware house.  | 5M  |
| (d) Test Suite Minimization Problem.  | 5M  |

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