

TIME: 2½ Hours

Total Marks: 75

- N. B.: (1) **All** questions are **compulsory**.
 (2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
 (3) Answers to the **same question** must be **written together**.
 (4) Numbers to the **right** indicate **marks**.
 (5) Draw **neat labeled diagrams** wherever **necessary**.
 (6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt **any three** of the following: 15

- a. List out the different stakeholders w.r.t. quality view. Write a short note on supplier's view of quality.
- b. Write in detail about user's gap and producer's gap.
- c. Write a comparative note on continuous and continual improvement and also quote PDCA life cycle.
- d. Write a short note on financial aspect of quality.
- e. Define (i) vision (ii) mission (iii) policy (iv) objectives (v) strategy
- f. Explain the quality management system structure (temple structure).

2. Attempt **any three** of the following: 15

- a. Write a short note on TQM cost triangle and also define Red, Blue and Green money.
- b. Write a short note on Requirement Traceability Matrix.
- c. What is Workbench? Write in detail about Tester's workbench using a suitable block diagram.
- d. What is the formula to measure test team efficiency? Explain the reasons for deviation of test team efficiency from 100%.
- e. Briefly write about the testing skills required by a tester.
- f. Write any two advantages and any two disadvantages for each of the below scenarios:
 - (i) Developers becoming testers
 - (ii) Domain experts doing software testing.

3. Attempt **any three** of the following: 15

- a. Explain Boundary Value Testing using suitable example.
- b. Explain Decision Table based testing using a suitable example.
- c. Define: (i) Robust boundary value testing (ii) Worst case boundary value (iii) Random testing (iv) Traditional equivalence class testing.
- d. What is a DD-Path? Quote the five cases of nodes in a program graph using a suitable example.
- e. Write a short note on Cyclomatic complexity and McCabe's basis path method using a suitable example.
- f. Define: (i) Def. node (ii) Use node (iii) P-use node (iv) du-path (v) dc-path

4. Attempt any three of the following:

15

- a. Write about the different types of reviews on the basis of stage/phase.
- b. List and explain different methods of verification.
- c. Write about the different phases of inspection.
- d. Discuss testing procedures during the requirements phase.
- e. In the design phase testing what are the aspects to be checked? Briefly explain.
- f. Write a short note on coverages w.r.t requirements, functionality and feature.

5. Attempt any three of the following:

15

- a. Write about the below in integration testing:
 - (i) Bottom-up approach
 - (ii) Modified top-down approach
 - (iii) Sandwich approach
- b. Write a short note on security testing.
- c. Write about performance testing, volume testing and stress testing.
- d. Define, (i) Smoke testing (ii) Sanity testing (iii) Monkey testing
- e. List out all the risks associated with new technologies.
- f. Write about the testing approach of web application
