

Time: 2 ½ Hours

[Marks: 75]

Please check if you have got the right question paper

N.B.:

- 1) All questions are compulsory
- 2) Make suitable assumptions wherever necessary and state the assumptions made
- 3) Answer to the same question must be written together
- 4) Numbers to the right indicate marks
- 5) Draw neat labelled diagram wherever necessary
- 6) Use of Non-Programmable calculator is allowed

1. Attempt any three of the following: [15]

- a. What is quality? Explain different views on quality.
- b. Write short note on Total Quality Management (TQM).
- c. What is continual (continuous) improvement cycle?
- d. List and explain any five requirements of a product.
- e. Explain the relationship between quality and productivity.
- f. Explain the structure of quality management system.

2. Attempt any three of the following: [15]

- a. Write a short note on Requirement Traceability Matrix (RTM).
- b. Explain various challenges in software testing.
- c. Explain gray box testing with its advantages and disadvantages.
- d. Explain the difference between verification and validation.
- e. What is test strategy? Explain different stages involve in process of developing test strategy.
- f. Explain the lifecycle of software testing.

3. Attempt any three of the following: [15]

- a. What is decision table testing technique? Explain in detail with example.
- b. What are cause-effect graphs? Explain with the help of an example.
- c. Write a short note on DD path testing.
- d. Explain slice-based testing with an example.
- e. What is boundary value testing? Explain robust boundary value testing.
- f. Write a short note on improved equivalence class testing.

4. Attempt any three of the following: [15]

- a. What are the V & V activities during designs?
- b. Explain the process of formal review.
- c. What are the different roles and responsibilities of development group?
- d. Explain the benefits of review technique.
- e. Explain the concept of workbench.
- f. What are the different methods of verification?

5. **Attempt any three of the following:**

[15]

- a. What is bottom up and top down testing? Explain with an example.
 - b. What is inter system testing and explain its advantages.
 - c. Write a short note on smoke testing.
 - d. What is Integration testing? Explain with an example.
 - e. What is Commercial Off-The-Shelf (COTS) software testing?
 - f. What is the need of a Security Testing?
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