

- 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 labelled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt any two of the following **10**

- a. What is a defect? What are its causes? When do they arise? What is the cost of finding defect?
- b. What is quality? Explain quality viewpoints for producing and buying software.
- c. Explain the fundamental principles of testing.
- d. Explain the fundamental test process.

2. Attempt any two of the following **10**

- a. Explain the V-model of testing.
- b. What is extreme programming? What are its characteristics?
- c. What are the different levels of testing? Explain each in brief.
- d. What are the four types of software testing? Explain each.

3. Attempt any two of the following **10**

- a. What is static testing? What are its advantages?
- b. Explain the phases of formal review.
- c. What are the different types of reviews? What are the goals and characteristics of inspection?
- d. What are the success factors of reviews? Explain.

4. Attempt any two of the following **10**

- a. What are the different types of testing techniques? Explain
- b. Explain equivalence partitioning and boundary value analysis with examples.
- c. What is decision table? Explain with example.
- d. State and explain the factors that influence the decision about which technique to use.

5. Attempt any two of the following **10**

- a. What are the benefits of independent testing? What are the skill sets required by a software tester?
- b. Explain various types of test strategies. How to pick up the best types of strategies for success?
- c. What is the purpose of test monitoring? Explain the IEEE 829 test log template.
- d. What is an incident report? What does it contain?

6. Attempt any two of the following

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- a. What are the features of test management tools and configuration management tools?
- b. What are test execution tools? What are their characteristics?
- c. What are benefits and risks of using tools? Explain.
- d. What are the important factors in selecting a tool? What are the objectives of pilot project for a new tool? What are the factors that contribute to the success after implementing a testing tool?

