

**K. J. Somaiya Institute of Technology, Sion, Mumbai-22**  
(Autonomous College Affiliated to University of Mumbai)

|                                                                                |                      |                |
|--------------------------------------------------------------------------------|----------------------|----------------|
| Nov – Dec 2025-26                                                              |                      |                |
| (B. Tech / M. Tech.) Program: Information Technology Scheme: IIB               |                      |                |
| Regular: LY Semester: VII                                                      |                      |                |
| Course Code: ITDLC7034 and Course Name: Software Testing and Quality Assurance |                      |                |
| Date of Exam: 27/11/2025                                                       | Duration: 02.5 Hours | Max. Marks: 60 |

**Instructions:**

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

| Q. No.     | Question                                                                                                                                                                                                                                                                                                                                                         | Max. Marks | CO  | BT level |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|----------|
| <b>Q 1</b> | <b>Solve any two questions out of three: (05 marks each)</b>                                                                                                                                                                                                                                                                                                     | <b>10</b>  |     |          |
| a)         | Explain Verification and Validation method.                                                                                                                                                                                                                                                                                                                      |            | CO1 | U        |
| b)         | Explain static testing method in detail.                                                                                                                                                                                                                                                                                                                         |            | CO2 | U        |
| c)         | Explain Test Plan Hierarchy.                                                                                                                                                                                                                                                                                                                                     |            | CO3 | U        |
| <b>Q 2</b> | <b>Solve any two questions out of three: (05 marks each)</b>                                                                                                                                                                                                                                                                                                     | <b>10</b>  |     |          |
| a)         | Describe costs incurred in testing tools.                                                                                                                                                                                                                                                                                                                        |            | CO4 | U        |
| b)         | Explain Scrum in Software Testing.                                                                                                                                                                                                                                                                                                                               |            | CO5 | U        |
| c)         | Explain McCall's Quality Factors and Criteria.                                                                                                                                                                                                                                                                                                                   |            | CO6 | U        |
| <b>Q.3</b> | <b>Solve any two questions out of three. (10 marks each)</b>                                                                                                                                                                                                                                                                                                     | <b>20</b>  |     |          |
| a)         | Describe Software Testing methodology.                                                                                                                                                                                                                                                                                                                           |            | CO1 | U        |
| b)         | Describe decision table-based testing in detail.                                                                                                                                                                                                                                                                                                                 |            | CO2 | U        |
| c)         | Describe details of testing group hierarchy for testing in test management.                                                                                                                                                                                                                                                                                      |            | CO3 | U        |
| <b>Q.4</b> | <b>Solve any two questions out of three. (10 marks each)</b>                                                                                                                                                                                                                                                                                                     | <b>20</b>  |     |          |
| a)         | Explain detail of Selenium testing tool.                                                                                                                                                                                                                                                                                                                         |            | CO4 | U        |
| b)         | Describe Agile Testing and Agile Testing Life Cycle in detail                                                                                                                                                                                                                                                                                                    |            | CO5 | U        |
| c)         | Explain equivalence class testing with given example, A program determines the next date in the calendar. Its input is entered in the form of <ddmm/yyyy> with the following range. 1<=mm<=12, 1<=dd<=31, 1900<=yyyy<=2025. Its output would be the next date or an error message 'invalid date.' Design test cases using equivalence class partitioning method. |            | CO2 | U        |