

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2020**

**SOFTWARE TESTING**

[Maximum Marks: 75]

[Time: 2.15 Hours]

**PART-A**

(Answer *any three* questions in one or two sentences. Each question carries 2 marks)

- I. 1. Distinguish between verification and validation.  
2. Define stub.  
3. List any four open source testing tools.  
4. Define Debugger.  
5. List the types of debuggers. (3 x 2 = 6)

**PART-B**

(Answer any *four* of the following questions. Each question carries 6 marks)

- II 1. Explain the goals of testing.  
2. Explain software testing process.  
3. State the objectives of regression testing.  
4. Describe the need of white box testing.  
5. Describe about any three commercial testing tools.  
6. Explain the use of static testing tools.  
7. Explain debugging with memory dumps and its drawbacks. (4 x 6 = 24)

**PART-C**

(Answer *any of the three units* from the following. Each full question carries 15 marks)

**UNIT – I**

- III (a) Describe Software Testing Life Cycle and Phases with suitable diagram. (9)  
(b) Explain validation test execution. (6)

**OR**

- IV (a) Explain the model for software testing. (8)  
(b) Describe the steps to prepare test strategy matrix. (7)

**UNIT – II**

- V (a) Describe equivalence class testing. (8)  
(b) State the need of technical reviews. (7)

**OR**

- VI (a) Describe mutation testing. (9)  
(b) “Error guessing is an ad hoc approach for testing”. Comment on this statement. (6)

**UNIT- III**

- VII (a) Describe the advantages of test automation. (9)  
(b) Explain guide lines in the selection of testing tools. (6)

**OR**

- VIII (a) Discuss any three types of web testing. (9)  
(b) List the issues in object oriented testing. (6)

**UNIT - IV**

- IX (a) Explain the debugging with watch points. (8)  
(b) Explain how to correct bugs. (7)

**OR**

- X (a) Describe the process of debugging. (8)  
(b) Discuss the steps in backtracking process of debugging. (7)

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