

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE – APRIL - 2024**

**SOFTWARE TESTING**

[Maximum Marks : 75]

[Time : 3 hours]

**PART-A**

**I.** Answer **all** the following questions in one word or sentence. Each question carries 1 mark.

**(9x1=9 marks)**

		Module Outcome	Cognitive level
1	Name any two post implementation goals of software testing.	M1.01	R
2	Define the term error.	M1.02	R
3	How many number of test cases in a robust testing if there are 2 variables in a module?	M2.01	A
4	Define structure in Whitebox testing.	M2.04	R
5	List any two types of static testing.	M3.01	R
6	Define the role of coordinator in structured walkthrough testing.	M3.01	R
7	Define stub in unit validation testing.	M3.02	R
8	List categories of testing tools.	M4.01	R
9	Name two commercial testing tools.	M4.03	R

**PART B**

**II.** Answer **any Eight** questions from the following. Each question carries 3 marks.

**(8x3=24 marks)**

		Module Outcome	Cognitive level
1	Explain the block diagram of a software testing model.	M1.01	U
2	Define the terms (i) failure (ii) Error.	M1.02	R
3	List the steps involved in preparing a Test strategy matrix.	M1.04	R
4	A program computes $a^b$ where a lies in the range [1,10] and b within [1,5]. Compute the number of test cases required for this program using BVC and show the set of boundary values.	M2.01	A
5	List various stages of a general inspection process.	M3.01	R
6	Explain structured walkthrough process.	M3.01	U
7	Compare features of alpha testing and beta testing.	M3.05	U
8	Explain any three guidelines for automated testing.	M4.01	U
9	List any three benefits of using automation testing tools.	M4.01	R
10	List any three issues in object oriented testing.	M4.04	R

## PART C

Answer **all** questions from the following. Each question carries 7 marks.

**(6x7=42marks)**

		Module Outcome	Cognitive level
III	Illustrate the states of bug.  <b>OR</b>	M1.03	U
IV	Describe software testing methodology.	M1.03	U
V	A program reads 3 numbers x, y and z with a range [1,50] and prints the largest number. Design test cases for this program using equivalence class testing technique.  <b>OR</b>	M2.01	A
VI	A program calculates the total salary of an employee with the conditions that if the working hours are less than or equal to 8, then give normal salary. The hours over 8 on normal working days are calculated at the rate of 1.25 of the salary. On holidays or Sundays, the hours are calculated at the rate of 2.0 times of the salary. Design test cases using decision table testing.	M2.03	A
VII	Summarize the goals for designing test cases in equivalence class partitioning.  <b>OR</b>	M2.01	U
VIII	Explain the need of white box testing.	M2.04	U
IX	Outline features of selective retest technique.  <b>OR</b>	M3.07	U
X	Explain the objectives of regression testing.	M3.05	U
XI	Describe benefits of designing stubs and drivers in unit validation testing.  <b>OR</b>	M3.06	U
XII	Explain the need for integration testing.	M3.07	U
XIII	Summarize the challenges in testing for web based software.  <b>OR</b>	M4.05	U
XIV	Explain the features of any one commercial testing tool.	M4.03	U

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