

Hall Ticket Number:

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Code No. : 17653 (B) N/O

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD*Accredited by NAAC with A++ Grade***B.E. (I.T.) VII-Semester Main & Backlog Examinations, Dec.-23/Jan.-24****Software Testing (PE-II)**

Time: 3 hours

Max. Marks: 60

*Note: Answer all questions from Part-A and any FIVE from Part-B***Part-A (10 × 2 = 20 Marks)**

Q. No.	Stem of the question	M	L	CO	PO
1.	Differentiate between static and dynamic testing.	2	1	1	1
2.	Do you agree to the statement that "Testing starts after program development". Justify.	2	2	1	1
3.	Why regression testing is impractical? Justify.	2	2	2	1
4.	What are the advantages of static testing as compared to dynamic testing?	2	1	2	1
5.	What is the need of test harness in the integration test plan?	2	1	3	1
6.	What are the disadvantages of LOC metrics?	2	1	3	1
7.	How object oriented testing is different from the conventional testing?	2	1	4	1
8.	What is web engineering?	2	1	4	1
9.	Explain the need of automated testing tools.	2	1	5	1
10.	Give two reasons for the use of QTP tool.	2	1	5	1
Part-B (5 × 8 = 40 Marks)					
11. a)	Compare and contrast Effective and Exhaustive testing.	4	2	1	1
b)	Differentiate between Error, bug, Fault, failure, testware and an incident.	4	2	1	1
12. a)	Consider the following program main() calsum (int p, int q, int r) { { int a, b, c, sum, diff, mul; return(p + q + r); scanf("%d%d%d", &a, &b, &c); } sum = calsum(a, b, c); diff = caldiff(a, b, c); prod = calprod(a, b, c); }	5	3	2	2
	(i) Suppose main() module is not ready for testing of calsum() module, design a drive module for main() (ii) Modules calldiff() and calprod() are not ready when called in main(). Design stubs for these modules				

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b)	A program reads an integer number within the range [1,50] and determines whether it is a palindrome or not. Design test cases for this program using Boundary value checking, robust testing, and worst-case testing methods.	3	3	2	2
13. a)	Illustrate the purpose of defect removal efficiency, defect age, and defect spoilage.	4	2	3	1
b)	Design a test suite for testing a Banking software.	4	3	3	2
14. a)	Differentiate Load and Stress testing and illustrate how it is performed on an web application that reports the results of any public examination.	5	3	4	2
b)	Consider a project of Airline Ticket Automation wherein the software resulted in failures like tickets are not booked , payment errors, etc. list few more similar failures and solve these using backtracking.	3	3	4	2
15. a)	What is a test script language? What are its functions? Write a sample test script to test the basic functionality of a calculator.	4	3	5	2
b)	Justify the need for a Testing Tool for Software Testing. Write the steps involved in conducting regression Testing using QTP Tool.	4	3	5	2
16. a)	Give the classification of Bugs based on SDLC phases and justify how the discovery of bug in a later phase in SDLC increases the cost of rectifying it.	4	2	1	1
b)	Distinguish between Static Testing and Dynamic Testing.	4	2	2	1
17.	Answer any <i>two</i> of the following:				
a)	There are 1200 estimated function points in a project. Calculate the total number of test cases in the system and the number of test cases I acceptance testing. Also calculate the defect density (number of total defects is 236) and test coverage.	4	3	3	2
b)	Illustrate the issues with object oriented testing?	4	2	4	1
c)	Classify testing tools based on their applicability.	4	2	5	1

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20
ii)	Blooms Taxonomy Level – 2	40
iii)	Blooms Taxonomy Level – 3 & 4	40

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