

TE sem IV 'C' scheme summer 2025

(3 hrs.)

Marks = 80

NB:

FCS
13/6/25

1. Question No. 1 is compulsory and solve any THREE questions from remaining questions
2. Assume suitable data if necessary
3. Draw clean and neat diagrams

Q1.	Attempt any four	Marks
a.	Explain the model for software testing.	5
b.	Explain acceptance testing.	5
c.	What are the skills a tester must possess?	5
d.	What is the need for test automation?	5
e.	Differentiate between progressive and regressive testing.	5
Q2.	a. A program reads three numbers A, B, and C, with a range [1,100] and prints the largest number. Design test cases for this program using equivalence class testing.	10
	b. Explain components of a test plan.	10
Q3.	a. What is mutation testing? Explain advantages of mutation testing. Consider the following code snippet. <pre> if(a>b) x=x+y; else x=y; printf("%d",x); </pre> Write primary mutants of the given code. Design test cases to check the primary mutants of this code.	10
	b. Explain McCall's quality factors in detail.	10
Q4.	a. Consider following pseudocode. 1. sum_of_all_positive_numbers(a,num_of_entries,sum) 2. sum=0 3. init=1 4. while(init <=num_of_entries) 5. if a[init] > 0 6. sum=sum+a[init] 7. endif 8. init=init+1 9. endwhile 10. end sum_of_all_positive_numbers	10

Draw the control flow graph of the given pseudocode. Determine the cyclomatic complexity of the graph. List all the independent paths and design test cases from all the independent paths.

3

- b. Explain Agile Testing in detail. 10
- Q5 a. Explain ISO9000:2000 in detail. 10
- b. Explain test suite minimization and its benefits. 10
- Q6 a. Explain categorization of test automation tools. 10
- b. Explain the goals of software testing. 10
