PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
DEPARTMENT OF COMPUTER TECHNOLOGY
ACADEMIC SESSION: 2022-23 (EVEN SEMESTER)

QUESTION BANK FOR CAT-I

Subject	:	Software Testing and Quality Assurance (BECT603-2T)	**Semester**	:	VI - A and B
Subject Teacher	:	Prof. P. U. Tembhare | Prof. Amita P. Suke	**Date of Display**	:	16-02-2023
Unit	:	I, II and III			

Course Outcomes:

After completing the course, students will be able to :

CO1 : Explain test cases, Verification, Validation, bugs and TQM.

CO2 : Design and apply test cases suitable for a software development.

CO3 : Explain and apply different levels of testing.

Que. No.		Questions	Mapping with CO	BT Level
1.	a)	What is SDLC? Describe in detail.	CO1	II
1.	b)	Difference between Verification and Validation.	CO1	II
2.	a)	Explain in detail about the following terminologies in testing: Error, Fault, Failure	CO1	II
2.	b)	What is test case? Design the test case to for the scenario: "Check Login Functionality"	CO1	III
3.	a)	What are the different practices for designing good test case? Explain in detail.	CO1	II
3.	b)	What do you mean by Test Case Management? Enlist any two Test Case Management Tools.	CO1	II
4.	a)	What are Test Oracles? Explain in detail.	CO1	II
4.	b)	What is Test Case Scenario? Explain in detail with suitable example.	CO1	II
5.	a)	What is boundary value analysis? Explain in detail with suitable example.	CO2	II
5.	b)	What is Equivalence class partitioning? Explain in detail with suitable example.	CO2	II
6.	a)	Differentiate between black box testing and white box testing.	CO2	II
6.	b)	What is state transition testing? Explain in detail with suitable example.	CO2	II

7.	a)	Enlist any four tools to perform White box testing? Also explain advantages and disadvantages of white box testing.	CO2	II
7.	b)	What is static testing? Explain in detail with suitable example.	CO2	II
8.	a)	What is McCabe's Cyclomatic Complexity? Compute Cyclomatic Complexity of following program code.	CO2	III

```
i = 0;
n=4; //N-Number of nodes present in the graph
while (i<n-1) do
    j = i + 1;
    while (j<n) do
        if A[i]<A[j] then
        swap(A[i], A[j]);
    end do;
    j=j+1;
end do;
```

8.	b)	Enlist any two tools for computation of Cyclomatic Complexity? How does Cyclomatic complexity is useful in software testing?	CO2	II
9.	a)	What is unit testing? Explain in detail with suitable example.	CO3	II
9.	b)	Explain in detail about advantages and disadvantages of unit testing.	CO3	II
10.	a)	What is integration testing? Explain in detail with suitable example.	CO3	II
10.	b)	Explain in detail about advantages and disadvantages of integration testing.	CO3	II

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