



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous College Affiliated to University of Mumbai)

QUIZ 2 (04-Mar-2021)

Max. Marks : 15(1Mark-Submit on Time) **Duration: 15 Minutes**
Class : TE Computer **Semester: VI**
Course Code : CE 63 **Branch : Computer Engineering**
Name of the Course: Software Engineering

Instructions:
(1) All Questions are Compulsory

Name: Vishal Shashikant Salvi
UID: 2019230069
52
Batch C

Question No.		Max. Marks	CO
1)	Changing requirements fall in which of the following category of risk? a)Technical risk b)Development environment c)Project risk d)Business risk	1	CO3
2)	Factors that affect the consequence of a risk are a)Nature of the risk b)Scope of risk c)Timing of risk d)None of the above	1	CO3
3)	According to Halstead, if level of language is higher, a)Program development takes less effort b)Program development takes more effort c)Development takes same effort d)None of the above	1	CO2
4)	Initial estimate of a project is 100KLOC.Team members have average experience on similar project.Find the effort required for the project.	1	CO2



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	<p>Vishal Salvi 52</p> <p>Q. 4) 100 KLOC - Initial Estimate given</p> <p>Average Experience Semi detached, Basic CORMO model</p> <p>$A = 3$ $B = 1.12$</p> <p>$\therefore \text{Effort Applied} = A * (\text{KLOC})^B$ $= 3 * (100)^{1.12} \text{ man months}$ $= \underline{\underline{521.34 \text{ Man months}}}$</p>		
5)	<p>Which of the following model used for a project where the requirements are stabilized and basic architecture is in place</p> <p>a) Application composition model</p> <p>b) Early design stage model</p> <p>c) Post architecture model</p>	1	CO2
6)	<p>Give 2 constraints in review meeting in FTR</p> <ol style="list-style-type: none"> 1) The duration of the review meeting should be less than two hours. Given these constraints, it should be obvious that an FTR focuses on a specific and small part of the overall software. 2) Review meeting between 3 or 4 people. 3) Advance preparation should occur but it should be very short that at the most 2 hours of work for each one. 	1	CO4



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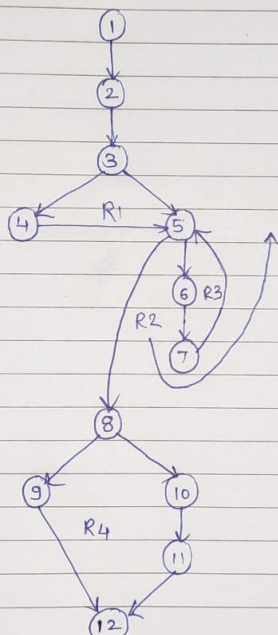
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7)	<p>Which of the following cannot be identified during code review?</p> <p>a) Formal and actual parameter mismatch</p> <p>b) Is memory freed after it is no longer required</p> <p>c) Non conformance to software requirements</p> <p>d) Are all variables initialized before they are used</p>	1	CO4
8)	<p>Discuss a scenario where program is correct but not reliable</p> <p>Yes. A program may produce the correct answer given valid inputs, but a lot of the time we have to check against bad data or wrong options which might induce undefined behavior in the computational part of the program.</p> <p>For example - a program that divides.</p> <p>A correct program is the one that divides two numbers and outputs the right answer.</p> <p>A reliable program is the one that also handles the divide by zero possibility preventing the program from producing unwanted outputs.</p>	1	CO4
9)	<p>Draw graph and use the no. of nodes and edges to calculate cyclomatic complexity of following program given at the end</p>	2	CO4



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	<p>Vishal Salvi 2019230069 52</p> <p>g → 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12</p> <p> $\tau(G) = p + 1$ $= 1 + 1 + 1 + 1$ $\tau(G) = \underline{\underline{4}}$ </p>  <p> $N = 12$ $E = 14$ $2 * p = 2$ $\therefore E = N + 2$ $14 = 12 + 2$ $= \underline{\underline{4}}$ </p>		
10)	<p>Match the following</p> <p>A. Ambiguous requirement</p> <p>B. Lack of communication in team</p> <p>C. No proper training</p> <p>D. Change in government rule</p> <p>1. Development environment</p>	4	CO3



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	<p>2. Product risk</p> <p>3. Business risk</p> <p>4. Operational risk</p> <p>Ans:</p> <p>A - 2</p> <p>B - 1</p> <p>C - 4</p> <p>D - 3</p>		
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Program-X:

```
sumcal(int maxint, int value)
{
    int result=0, i=0;
    if (value <0)
    {
        value = -value;
    }
    while((i<value) AND (result
<= maxint))
    {
        i=i+1;
        result = result + 1;
    }
    if(result <= maxint)
    {
        printf(result);
    }
    else
    {
        printf("large");
    }
    printf("end of program");
}
```