

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2023**

Semester : Semester V - 2020

Course Code : CSE2014

Course Name : Sem V - CSE2014 - Software Engineering

Program : B.Tech. CSE and Allied

Date : 6-JAN-2023

Time : 9.30AM - 12.30PM

Max Marks : 100

Weightage : 50%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.

PART A

ANSWER ALL THE TEN QUESTIONS

10 X 2 = 20M

1. List the essence of Software Engineering Practices?
(CO1) [Knowledge]
2. Compare and Contrast the two differences of Classical waterfall model with Iterative waterfall Model.
(CO1) [Knowledge]
3. Identify the type of requirement in the two cases.
 - R1: Sales report must be generated once in fifteen days.
 - R2: The landing page supporting 5,000 users per hour must provide 6 second or less response time in a Chrome desktop browser, including the rendering of text and images and over an LTE connection.(CO2) [Knowledge]
4. State the uses of CASE in Software testing.
(CO2) [Knowledge]
5. Distinguish Scrum and Sprint used in Agile.
(CO3) [Knowledge]
6. List the phases of Dynamic Systems Development Technique lifecycle.
(CO3) [Knowledge]
7. Define Integrate and Deploy stage in Devops architecture.
(CO3) [Knowledge]

8. List types of the testing done during the process of Software Development. (CO4) [Knowledge]
9. List the advantages and disadvantages of black box testing. (CO4) [Knowledge]
10. Define Software Configuration Management and baseline. (CO4) [Knowledge]

PART B

ANSWER ALL THE FIVE QUESTIONS

5 X 10 = 50M

11. What is the general idea behind evolutionary models?. Companies manufacturing products spend large amounts of money designing and developing their ideas. It makes sense for them to build models / prototypes of a product, before it goes into production. It saves money. How can you justify the above statement about prototyping? Explain the advantages and disadvantages of prototyping. (CO1) [Comprehension]
12. a)Distinguish between activity diagram and swimlane diagram (2M)
 b)Imagine you are developing a Hotel reservation system. Express the working of reservation system which should check for room availability and user registration status before confirmation using an activity diagram (8M)
 (CO2) [Comprehension]
13. a)List different types of agile estimation techniques (2M)
 b)Explain any two agile estimation technique in detail (8M)
 (CO3) [Comprehension]
14. Explain phases of software maintenance (CO4) [Comprehension]
15. A bank gives interest for the balance in accounts according to the following:
 • For the first \$3000, the interest rate is 0%
 • For balance between \$3001 to \$10000, the interest rate is 2%
 • For balance above \$10000, the interest rate is 4%
 (a) Select the equivalence partions for the above problem (5M)
 (b) Using the boundary value analysis Technique, identify test cases. (5M)
 (CO4) [Comprehension]

PART C

ANSWER ALL THE TWO QUESTIONS

2 X 15 = 30M

16. What are use case diagrams? Explain the difference between activity diagrams and swimlane diagrams? Draw a use case diagram for Airline Reservation System which should include reservation facility, check-in facility and cancelation facility. (CO2,CO1) [Application]
17. (a) The project manager, developers, configuration manager, the product owner and testers are involved in the SCM process. They have to follow multiple processes to complete software configuration management. List the processes involved in SCM.
 (b) A program reads three input numbers that represent the lengths of the three sides of a triangle. Based on these three input values, the program determines whether the triangle is scalene (that is, it has three unequal sides), isosceles (two equal sides), or equilateral (three equal sides). The program displays the result on the screen. Apply boundary value analysis to generate test cases assuming each side takes a value between 1 to 200. (CO4,CO3) [Application]
