

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET - B

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

Semester : Semester II - 2022

Course Code : CSE2014

Course Name : Sem II - CSE2014 - Software Engineering

Program : CAI,CBC,CBD,CCS,CDS,CDV,CIT,CSD,COM,CSG,ISE&CSE

Date : 19-JUN-2023

Time : 1.00PM - 4.00PM

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.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

(10 X 2 = 20M)

1. Differentiate between design process and design model.
(CO2) [Knowledge]
2. "A tester provides an input, and observes the output generated by the system under test". Justify the statement with its types.
(CO4) [Knowledge]
3. Identify the one which is not part of the Software Requirement Specification Format.
A. Functional Requirements
B. Performance Requirements
C. Design Constraints
D. None of the above
(CO2) [Knowledge]
4. Define Software Architecture.
(CO2) [Knowledge]
5. What is Software Configuration Management (SCM)? List a few well-known version control software.
(CO4) [Knowledge]
6. List the SQA plan for the project.
(CO4) [Knowledge]
7. List the Stakeholder Roles.
(CO3) [Knowledge]

8. Justify the statement "Software doesn't wear out." (CO1) [Knowledge]
9. Define and compare functional and non-functional requirements. (CO1) [Knowledge]
10. List any four DevOps automation tools. (CO3) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

(5 X 10 = 50M)

11. Explain about the golden rules for developing user interface for a software. (CO2) [Comprehension]
12. 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%
Using the equivalence analysis Technique, find the partitions and boundary test cases. (CO4) [Comprehension]
13. What is DevOps? Draw and explain the DevOps architecture. (CO3) [Comprehension]
14. With neat diagram, elaborate of the CASE architecture. (CO2) [Comprehension]
15. What is Waterfall Model? Explain the Phases in detail using a diagram. (CO1) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

(2 X 15 = 30M)

16. Assume that you are working with your Arduino Project which reads the different types of gases present in the atmosphere and decides whether you are in a safe zone or not. You are also in a plan to commercialize your product once it is developed completely. You have limited time and budget for . Answer the following questions according to the given scenario.
(a) Which process model do you suggest for developing your project? Justify your selection.
(b) Explain in detail about the model you have selected with neat diagram. (CO4,CO3) [Application]
17. Imagine you are designing the use case diagram for an online banking website. The banking website allows a customer to create a new savings account. There are also options for requesting loans and starting a fixed deposit. Elaborate the above system using usecase diagram with suitable actors, and implement use cases with suitable extends and include relationships. Also draw activity diagram for any one banking activity. (CO2,CO1) [Application]