

Roll No



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF INFORMATION SCIENCE  
END TERM EXAMINATION - JUN 2023**

**Semester :** Semester II - 2022

**Course Code :** CSA2006

**Course Name :** Sem II - CSA2006 - Fundamentals of Software Engineering

**Program :** BCA

**Date :** 16-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. Mention some of the major activities covered by software project management.  
(CO4) [Knowledge]
2. What are the objectives of testing?  
(CO3) [Knowledge]
3. State the Elements of Software Quality Assurance.  
(CO3) [Knowledge]
4. Explain which model of software development is well suited to the system where all the requirements are known at the start of a Project and remain stable throughout the project.  
(CO1) [Knowledge]
5. List out the symbols in an Activity Diagram.  
(CO2) [Knowledge]
6. What is Risk management?  
(CO4) [Knowledge]
7. State the steps in essence of Software Engineering practice.  
(CO1) [Knowledge]
8. List any two challenges involved in agile software development?  
(CO1) [Knowledge]
9. Define Design and Its features.  
(CO2) [Knowledge]
10. List the goal for collaborative requirement gathering for eliciting requirement.  
(CO2) [Knowledge]

## PART B

### ANSWER ALL THE QUESTIONS

(5 X 10 = 50M)

11. Draw Activity diagram for university admission process.  
(CO2) [Comprehension]
12. Assume that the size of an organic type software product has been estimated to be 32,000 lines of source code. Assume that the average salary of a software developer is Rs. 15,000 per month. Determine the effort required to develop the software product, the nominal development time, and the cost to develop the product.  
consider the constant values as:  $a_1=2.4, a_2=1.05, b_1=2.5, b_2=0.38$   
(CO4) [Comprehension]
13. Discusses about main advantages and potential challenges of using Agile methodologies in software development projects? Provide examples of situations or project types where Agile is particularly well-suited.  
(CO1) [Comprehension]
14. Describe equivalence partitioning and boundary value analysis in detail.  
(CO3) [Comprehension]
15. Explain about User Interface Design Process in detail.  
(CO2) [Comprehension]

## PART C

### ANSWER ALL THE QUESTIONS

(2 X 15 = 30M)

16. Explain about software development life cycle (SDLC) models, and why are they important in software development projects? Compare and contrast the waterfall model and the iterative model, highlighting their key characteristics, advantages, and limitations.  
(CO1) [Application]
17. Software testing strategy is the set of steps that need to be done to assure the highest possible quality of an end product. In this perspective, state and explain the testing strategies in software testing. Also, enumerate the differences between Black box testing and White Box testing.  
(CO3) [Application]