



**PRESIDENCY UNIVERSITY
BENGALURU**

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

Semester : Semester V - 2020

Course Code : CSE3082

Course Name : Sem V - CSE3082 - Object Oriented Analysis and Design

Program : B.Tech. - CAI/CBD/CSD/CDV/CSG

Date : 13-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. What is the guideline for identifying Attributes of classes?
(CO1) [Knowledge]
2. What are the diagrams used in Booch methodology?
(CO1) [Knowledge]
3. What is an association? Differentiate between association and cardinality.
(CO2) [Knowledge]
4. Define Requirements and mention its types.
(CO2) [Knowledge]
5. Define corollary? Give the corollaries derived from design axioms.
(CO3) [Knowledge]
6. Give three types of Actors with example?
(CO3) [Knowledge]
7. Define private, public and protected protocols.
(CO3) [Knowledge]
8. Name some testing strategies.
(CO4) [Knowledge]
9. How many types of errors are there in Software? Mention them.
(CO4) [Knowledge]
10. What do you mean by Top- down Testing?
(CO4) [Knowledge]

PART B

ANSWER ALL THE FIVE QUESTIONS

5 X 10 = 50M

11. A withdrawal transaction asks the customer to choose a type of account to withdraw from checking, from a menu of possible accounts, and to choose a dollar amount. The system verifies that it has sufficient money on hand to satisfy the request before sending the transaction to the customer account and dispensing the cash and describe the usecase diagram for the above BANK ATM SYSTEM.
(CO1) [Comprehension]
12. Consider a library management system, in which books are stacked and segregated according to different stream and different subjects. Every book has got its own information like book reference number and number of copies available. A borrower can be student or faculty, every borrower will get a time limit after that borrower cannot keep the book with him, and he has to return it. The operations such as borrowing and returning will be documented as a record. Write the CRC cards for the classes Library, Borrower, Librarian and Lendable (Available books) from the above case study.
(CO2) [Comprehension]
13. Draw activity diagram for a ATM management system, a withdrawal transaction asks the customer to choose a type of account to withdraw from checking, from a menu of possible accounts and to choose a dollar amount. The system verifies that it has sufficient money on hand to satisfy the request before sending the transaction to the customer account and dispensing the cash.
(CO3) [Comprehension]
14. Draw the State Chart diagram for online shopping.
With user account life cycle in the context, the user account to be created with user id (used as a login name) must be unique, at least for the existing accounts. After account was created, it might need to be verified. Verification depends on the company and could include e-mail, phone, and/or address verification. If account was not verified during some predefined period of time, that account could be moved to the suspended accounts.
(CO3) [Comprehension]
15. Draw the Component Diagram for Course Registration System.
(CO4) [Comprehension]

PART C

ANSWER ALL THE TWO QUESTIONS

2 X 15 = 30M

16. Draw the component diagram for the advent of online learning by making use of online resources, platform like MS teams and google classroom to conduct online classes has a huge impact in changing the way of teaching. Teachers are also enabled to use software like star UML, CAD tools to better visualize and theoretical topics which would be hard otherwise.
(CO3) [Application]
17. Testing is process of executing a program with the intent of finding errors. A good test case is one that has a high probability of detecting an as-yet undiscovered error A successful test case is one that detects as as-yet undiscovered error. Discuss the guidelines for developing Quality Assurance tests. List out the different type of testing in Quality Assurance tests.
(CO4) [Application]
