Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SET A

SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2024

Semester : Semester V - 2021
Course Code : CSE3082
Course Name : Object Oriented Analysis and Design
Program : B.Tech.

Date : 09-JAN-2024
Time : 9:30AM - 12:30 PM
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 **5 X 2M = 10M**

1. Define class diagram.
(CO2) [Knowledge]
2. Define State-chart diagram.
(CO3) [Knowledge]
3. Define sequence diagram.
(CO3) [Knowledge]
4. State the benefits of access layer classes.
(CO4) [Knowledge]
5. Define DBMS.
(CO4) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS **5 X 10M = 50M**

6. Explain various common class pattern approach and the guidelines for identifying super sub relationship.
(CO2) [Comprehension]
7. Explain the following (i) Class visibility (3marks) (ii) Refining attributes and its types (3marks) and (iii) Designing methods and protocols (4 marks)
(CO3) [Comprehension]
8. Define corollaries. Explain various levels of corollaries.
(CO3) [Comprehension]

9. Explain the activities of access layer design process. Describe various database models with suitable example.

(CO4) [Comprehension]

10. Illustrate the steps involved in designing view layer classes. Explain macro and micro level design process of view layer classes.

(CO4) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS **2 X 20M = 40M**

11. Define State Transition Diagram. List out the notations used for State Transition Diagrams. Sketch a state transition diagram and activity diagram for a microwave oven for the following scenario:
(a) The oven is initially in idle state with door open when light is turned on.
(b) When the door is closed it is in idle state and light is turned off.
(c) If the button is pressed it moves to initial cooking stage where the timer is set and lights are on and heating starts.
(d) At any moment the door may be opened, the cooking is interrupted, the timer is cleared and heating stops.
(e) Also, while coking another button can be pushed and extended cooking state starts where the timer gets more minutes. At any moment door can be opened here also.
(f) If the timer times out, cooking is complete, heating stops, lights are off, it sounds a beep.
(g) When the door is open, again the oven is in idle state with the door open. (10+10 marks)

(CO3) [Application]

12. Explain Quality assurance Tests. Illustrate various testing strategies.

(CO4) [Application]