PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
END TERM EXAMINATION - JUN 2023

Semester : Semester VI - 2020
Course Code : CSE3082
Course Name : Sem VI - CSE3082 - Object Oriented Analysis and Deisgn
Program : CCS,CIT&CSE

Date : 16-JUN-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.
(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. Define object persistence.

   (CO1) [Knowledge]

2. List the notation used in deployment diagram.

   (CO4) [Knowledge]

3. List out the frame operators in sequence diagram.

   (CO3) [Knowledge]

4. List any two approaches for Identifying classes.

   (CO1) [Knowledge]

5. Outline the purpose of using Usecase diagrams.

   (CO2) [Knowledge]

6. Mention the types of axioms and its role.

   (CO3) [Knowledge]

7. What is meant by link?

   (CO4) [Knowledge]

8. Give the activities involved in design view layer classes.

   (CO3) [Knowledge]

9. Difference between Interaction coupling and Inheritence coupling.

   (CO2) [Knowledge]

10. What are the various testing strategies in software testing?

(CO4) [Knowledge]

PART B

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

11. Design and Illustrate the Airline Ticket reservation system using Sequence diagrams.

(CO3) [Comprehension]

12. You are working on a team developing a banking application that handles various financial transactions such as account management, fund transfers, and transaction history. The team has chosen the Booch methodology for the software development process. Design the system architecture and describe how you would apply the Booch methodology to address the requirements.

(CO1) [Comprehension]

13. Explain with a diagram a sample state machine for legal sequence of use case operations.The following state machine diagram shows legal sequencing of a use case operation : Example application : Process Sale use case.

(CO3) [Comprehension]

14. You are tasked with designing a component diagram and collaboration diagram for an online shopping system. The system involves multiple components, including a customer, a product catalog, a shopping cart, and a payment gateway. The customer browses products, adds items to the cart, and proceeds to checkout.

(CO3) [Comprehension]

15. Solve Noun phrase approach for Yummy Ltd, a food delivery mobile application, wants to increase the number of establishments and wants to include coffee shops and supermarkets. Analysts need to find how the newly featured establishments and wants to include coffee shops and supermarkets. Analysts need to find how the newly featured establishments benefit from current software parameters and what user needs might prompt the software through to the next stage.

(CO2) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS   **(2 X 15 = 30M)**

16. To conduct an exam, the instructor first notifies the students of the exam date and the material to be covered. S/he then prepares the exam paper (with sample solutions), gets it photocopied through office staff to produce enough copies for the class, and hands it out to students on the designated time and location. The students write their answers to exam questions and hand in their papers to the instructor. The instructor then gives the exam papers to the TAs, along with sample solutions to each question, and gets them to evaluate it. She/he then records all marks and returns the papers to the studentsØ Draw a sequence diagram that represents this process. Make sure to show when each actor is participating in the process. Also, show the operation that is carried out during each interaction, and what its arguments are.

(CO3) [Application]

17. Consider an Online Shopping scenario. After the customer adds things to his cart through the e-commerce website and finalizes his shopping, he is led to the payment portal. The web server is connected with the database server, which includes the product's information and the history and information about online shopping. Depict the scenario using a deployment diagram.

(CO4) [Application]