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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING  
MID TERM EXAMINATION - APR 2023**

**Semester :** Semester VI - 2020

**Course Code :** CSE3082

**Course Name :** Sem VI - CSE3082 - Object Oriented Analysis and Design

**Program :** CAI, CCS, CEI, CIT, COM, CSE, CSG, CST

**Date :** 17-APR-2023

**Time :** 9:30AM - 11AM

**Max Marks :** 60

**Weightage :** 30%

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**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.
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**PART A**

**ANSWER ALL THE QUESTIONS**

**(5 X 2 = 10M)**

1. Write the tools needed to extract the information about a software product to be developed.  
(CO1) [Knowledge]
2. Define CRC cards.  
(CO1) [Knowledge]
3. Define the following with an example:  
Class, Object, Object orientation  
(CO1) [Knowledge]
4. What are Three Strategies to Find Conceptual Classes?  
(CO2) [Knowledge]
5. What are the various guide lines used for selecting classes from relevant and fuzzy category.  
(CO2) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**(4 X 5 = 20M)**

6. Illustrate the design of Object Oriented System Development approach and explain in detail the phases.  
(CO1) [Comprehension]
7. Describe in detail with diagram the concept of process and components of unified approach.  
(CO1) [Comprehension]

8. For online shopping system, web customers could be registered and new customers. Registered customers can view the items in the shop. To view recommended items and to add to the wish list both require a customer to be authenticated. Authentication service is used in all the use cases that require authentication as an external actor, while sign-on also requires the participation of an external identity provider and develop use case diagram for the above scenario.

(CO2) [Comprehension]

9. At the bus stop, BMTC has a vending machine where people may buy drinks and chocolates. The vending machine supplier will load all the goods once every item is empty. Draw a use case diagram for the scenario mentioned above.

(CO2) [Comprehension]

### **PART C**

#### **ANSWER ALL THE QUESTIONS**

**(2 X 15 = 30M)**

10. Consider the hospital management system application with the following requirements.
- (i). System should handle the in-patient, out - patient information through receptionist.
  - (ii). Doctors are allowed to view the patient history and give their prescription. Apply Rumbaugh model for the above scenario and draw all the models.

(CO1) [Application]

11. 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 bookreference 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.

(CO1) [Application]