

**BACHELOR OF COMPUTER APPLICATIONS (C.B.C.S.) (2014 COURSE)**

**B.C.A. Sem-V : WINTER- 2022**

**SUBJECT : OBJECT ORIENTED ANALYSIS & DESIGN**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 22-12-2022

**W-11051-2022**

Max. Marks : **100**

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**N.B.:**

- 1) Attempt **ANY FOUR** questions from Section – I and **ANY TWO** questions from Section – II.
  - 2) Answers to both the sections should be written in the **SAME** answer book.
  - 3) Figures to the right indicate **FULL** marks.
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**SECTION – I**

- Q.1** What is use of Use-Case modeling? State and describe various relationships in use case diagram. [15]
- Q.2** Describe the following Object Oriented principles: [15]  
a) Abstraction b) Encapsulation c) Polymorphism
- Q.3** What is architectural modeling? Analyse role of deployment diagram in it. [15]
- Q.4** Illustrate the role of Collaboration diagram in software modeling. [15]
- Q.5** What do know about class relationships? State and describe relationships in class diagram. [15]
- Q.6** State the phases of Rational Unified Process (RUP) and describe the task carried out in each phase. [15]
- Q.7** Write short notes on **ANY THREE** of the following: [15]  
a) Composition  
b) Package diagram  
c) Merge and joins  
d) Component diagram

**SECTION – II**

- Q.8** Write a problem statement for e-library management system and identify classes involved in it along with their attributes and behaviour. Build a class diagram for same. [20]
- Q.9** Describe the role of Activity diagram in software modeling and construct activity diagram for “Process Order” in online shopping portal. [20]
- Q.10** Identify objects involved in “Car Rental System”. Which objects participate to rent a car? Draw sequence diagram for same. [20]

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