

**M.C.A. SEM - II (CHOICE BASED CREDIT SYSTEM 2011 & 2012**

**COURSE ) : SUMMER - 2018**

**SUBJECT : OBJECT ORIENTED ANALYSIS AND DESIGN**

Day : **Saturday**      **S-2018-1788**      Time : **10.00 AM TO 01.00 PM**  
Date : **28/04/2018**      Max. Marks : 100

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**N. B. :**

- 1) Attempt **ANY FOUR** from Section – I. Each question carries **15** marks.
  - 2) Attempt **ANY TWO** from Section – II. Each question carries **20** marks.
  - 3) Answers to both the sections should be written in the **SEPARATE** answer book.
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**SECTION - I**

- Q. 1** Define Object Oriented Analysis and Object Oriented Design. Explain phases of Rational Unified Process. **(15)**
- Q. 2** Explain Aggregation, Association and Composition. Also compare these terms with each other. **(15)**
- Q. 3** List the UML diagrams used in Elaboration phase and describe role of each in brief. **(15)**
- Q. 4** Illustrate the role of State-chart diagram in modelling dynamic behavior of the system. **(15)**
- Q. 5** What is Requirement gathering? Describe the UML diagrams used in Requirement gathering. **(15)**
- Q. 6** Write short notes on **ANY THREE** of the following: **(15)**
- a) 'is a' and 'has a' relationship
  - b) Encapsulation and Abstraction
  - c) Fork and Joins
  - d) Deployment diagram

**SECTION - II**

- Q. 7** Books in a library are categorized as reference books and text books. A member of library can be either a faculty or a student. Librarian issues books to member. **(20)**  
Draw a Class diagram for this applying relationship, association with multiplicity and generalization concept.  
Draw Use case diagram.
- Q. 8** A customer swaps his card in ATM. If pin is valid, amount and transaction type is validated, money is withdrawn and updations are done in his account. If not, the transaction is rejected. **(20)**  
Draw an Activity diagram.
- Q. 9** a) Draw a State Transition diagram for a 'Database Transaction' with all possible states. **(10)**
- b) Draw Sequence diagram for online booking of tickets in Railway Reservation system. **(10)**

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