

**NEW**

**2017**

**BCA**

**6th Semester Examination**

**OOAD USING UML**

**PAPER—3201**

*Full Marks : 100*

*Time : 3 Hours*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Answer any five questions.*

1. (a) What is object? What are the purpose of object ID?  
What do you mean by an actor in a use case?

- (b) Identify classes and then behaviour through sequence modelling for NET Bank ATM System. 8
2. (a) Describe the purpose, function and UML notation of the class diagram. 6
- (b) Discuss OOSAD life cycle model in details. 8
3. (a) Draw and explain UML Interaction diagram for issuing the Books in Library. 8
- (b) Explain the activity diagram for the above problem in Q.3 (a). 6
4. (a) What is use case diagram? Draw a use case diagram for placing an order for food in a restaurant booking system. 3+5
- (b) Distinguish between Deployment diagram and component diagram with an example. 6

5. (a) What do you mean by advanced structural modelling?  
How does it differ from Behavioural Modelling?  
2+5

(b) Explain the Behavioural diagram in SDLC. 7

6. Write the difference between :  $4 \times 3\frac{1}{2}$

(a) Aggregation and Association ;

(b) Signal and event ;

(c) Object and Actor ;

(d) Class and object.

7. (a) Draw an activity diagram of a Banking system. 7

(b) Draw and state diagram of an education institute  
library data management system. 7

8. Write short notes on :  $4 \times 3\frac{1}{2}$

(a) Inheritance ;

(b) Polymorphism ;

- (c) Encapsulation ;
- (d) Collaboration diagram ;
- (e) State chart diagram.

**[ Internal Assessment : 30 ]**

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