Total No. of Questions—4]

[Total No. of Printed Pages—3

Seat	
No.	

[5216]-306

T.Y. B.Sc. (Computer Science) (III Sem.) EXAMINATION, 2017 COMPUTER SCIENCE

Paper VI

CS-336: Object Oriented Software Engineering
(2013 PATTERN)

Time: Two Hours

Maximum Marks: 40

- N.B. := (i) All questions are compulsory.
 - (ii) Figures to the right indicate full marks.
 - (iii) All questions carry equal marks.
 - (iv) Neat diagrams must be drawn wherever necessary.
- **1.** Attempt *all* of the following:

 $[10 \times 1 = 10]$

- (a) "Classes may called as object type." State True/False and justify.
- (b) "UML supports both static and dynamic modeling." State True/ False and justify.
- (c) Define the object "Saving Bank Account" with possible attributes and operations with visibility.
- (d) Define Leaf Class.
- (e) What is meant by stereotypes?

P.T.O.

- (f) Name any two phases of Iterative development process.
- (g) Name the types of diagram used by Booch's method in implementation level.
- (h) What is use of component diagram?
- (i) What is acceptance testing?
- (j) Define Fork.
- **2.** Attempt any *two* of the following:

 $[2 \times 5 = 10]$

- (a) What is Modeling? Explain any two types of model.
- (b) Write a note on Rumbaugh method.
- (c) Write similarities and difference in sequence and collaboration diagram.
- **3.** Attempt any two of the following:

 $[2 \times 5 = 10]$

- (a) What is use of deployment diagram? Explain it with suitable diagram.
- (b) Explain stress and volume testing.
- (c) Draw the class diagram for stack and queue implementation using linked list.
- 4. Attempt the following:
 - (A) A system is to be designed for a travel company for computerizing their booking. They have coaches running on different routes,

[5216]-306

each has a start and destination and several stop overs. A customer booking can be done from any stop to any other stop in a group or as individual and charges are according to routes.

Compay has offices in every city where the booking clerk handles the cash. Customer can check the availability and also cancel the booking, get appropriate refund according to the rules. Consider above case and draw the following diagrams:

- (i) Draw activity diagram. [3]
- (ii) Draw sequence diagram. [4]
- (B) How test cases are designed for object oriented software ? [3] Or

For an automated vending machine for Coffee/Tea, a customer deposits a coin, select Coffee/Tea and get proper quantity of it from a machine. Draw a state transition diagram for the same.