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T.Y. B.Sc. (Sem. III) EXAMINATION, 2018 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) All questions carry equal marks.
- (iii) Figures to the right indicate full marks.
- (iv) Neat diagrams must be drawn wherever necessary.
- 1. Attempt all of the following:

 $[10 \times 1 = 10]$

- (a) "Due to inheritance modifications/maintenance of system become difficult." State True/False and Justify.
- (b) Give any two applications where UML can be used.
- (c) Define the object "Patient" with possible attributes and operations with visibility.
- (d) Define Interface.

P.T.O.

- (e) What is purpose of use case view?
- (f) Write any two phases of RUP.
- (g) Name the types of diagram used by Booch's method in designed level.
- (h) What are components of deployment diagram?
- (i) Define test case.
- (j) Define swim lanes.
- **2.** Attempt any *two* of the following:

 $[2 \times 5 = 10]$

- (a) What is aggregation? Explain multilevel aggregation with suitable example.
- (b) What do you mean by an iterative development? Give its benefits.
- (c) Discuss the components of sequence diagram.
- **3.** Attempt any *two* of the following:

 $[2 \times 5 = 10]$

- (a) What is use of component diagram? Explain it with suitable example.
- (b) Compare between Alpha and Beta testing.
- (c) Draw class diagram for airport system consisting of at least three classes. Define appropriate relationships, association with multiplicity.

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4. Attempt the following:

(A) An automated systems is to be designed for ATM banking. A bank can have multiple customers and all of them are issued the ATM cards. Customer swap the card which is verified by ATM. Customer select the kind of a transaction. If the transaction is to withdraw amount, it verifies the limit and minimum balance required. It also prints various transaction reports, account balance statement etc.

Consider above aspects and draw the following diagrams:

- (i) Draw use case diagram. [3]
- (ii) Draw sequence diagram. [4]
- (B) Compare between model and meta model. [3]

Or

Draw a collaboration diagram for "student admission system". [3]