

Total No. of Questions : 6]

SEAT No. :

P5806

[Total No. of Pages : 2

BE/Insem./Oct.-596

B.E. (IT)

SOFTWARE DESIGN & MODELING

(2015 Pattern)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Neat diagram must be drawn.*
- 3) *Figure to the right indicate marks.*
- 4) *Assume Suitable data if necessary.*

- Q1)** a) Briefly explain three building blocks of UML. **[5]**
b) Explain unified Approach of system development with respect to process and concept used init. **[5]**

OR

- Q2)** a) Describe in brief "Micro and Macro development process of Grady Booch. **[5]**
b) Explain Four Common Mechanism of UML. **[5]**

- Q3)** a) Convert following into class diagram with appropriate classes, relationship, multiplicity A computer program has many statement, An expression is a statement, A function is a statement, An expression contains variable, a constant, an operator. A relational operator is an operator, An arithmetic operator is an operator, function has an argument list, a return type. **[6]**
b) Diagrammatically show generalization, include and extends relationship in the context of use case diagram. **[4]**

OR

P.T.O.

Q4) a) With the context of class diagram show a qualified Association, aggregation and composition with example. [4]

b) Draw use case diagram for ATM Machine. [6]

Q5) a) Construct the activity diagram of given description using Swim lanes. A customer decided to purchase a DVD player. He begins by calling the sales department of DVD shop. They Tell him to talk to customer support. He then calls customer support. They put him on hold while taking to engineering. Finally customer support tells the customer about several DVD player option. Customer chose the DVD player and makes a payment to accounts department. The DVD player is shipped by the dispatch department customer receive the DVD player. [5]

b) In the context of state diagram define state, trigger, guard, effect. [5]

OR

Q6) a) In context of sequence diagram what is an entity and controller class.[4]

b) Draw a state diagram for fax machine and show entry, exit and do behavior. Initially. The machine is in the Idle state. It displays the date and time in this state. When the user dials a Fax number, the machine remains in the Idle state till the number dialing is complete. After the number is completely dialed, it goes into the faxing state. Being in this state, it prints the fax on the page, it pulls the page out, puts adate, time and owner stamp at the end of the fax message which it prints. After the Fax printing is complete, it goes back to idle state. [6]

