**Class assessment-3**

1. What is the purpose of statechart? What are the components of this diagram? [4]

1. Draw a statechart diagram following the case given below. [16]

In an order processing system all customers are initially set up as prospective customers, but when they place their first order, they are considered to be active. If a customer doesn’t pay an invoice on time, he is placed on notice. If he continues to keep overdue, he is given warning. If the customer doesn’t pay the dues within a month of the warning, legal actions are taken against the customer. If the customer pays after the warning, he is taken back to the system as a risky customer. Only when he has a good record of transaction for six months he is taken as regular customer. If an active customer does pay on time and has ordered more than $10,000 in the previous six months, he warrants preferred status. Preferred status may be changed only if the customer is late on two or more payments. Then he returns to active status rather than probation, giving him the benefit of the doubt based on his preferred history. Sometimes an active customer can become preferred customer if the management has special issues with the customer. The customer information is archived for good if the customer dies or if there has been no transaction with the customer for more than five years.