Q1 A sheet is a collection of links and boxes. A link is a sequence of line segment that connect two boxes. Each line segment is specified by two points. A point may be shared by a vertical and horizontal line segment in the same link. A selection is a collection of links and boxes that have been highlighted in anticipation of an editing operation. A buffer is a collection of links and boxes that have been cut or copied from the sheet.

Draw Class Diagram for above case study.

Q1 Courseware Management System. The organization offers a variety of courses in a variety of areas such as learning management techniques and understanding different software languages and technologies. Each course is made up of a set of topics. Tutors in the organization are assigned courses to teach according to the area that they specialize in and their availability. The organization publishes and maintains a calendar of the different courses and the assigned tutors every year. There is a group of course administrators in the organization who manage the courses including course content, assign courses to tutors and define the course schedule. The training organization aims to use the Courseware Management System to get a better and visibility to the management of courses as also to streamline the process of generating and managing the schedule of the different courses.

Draw Class Diagram for above case study.

Q1. Draw Class Diagram for a graphical document editor that supports grouping which is a concept used in a variety of graphical editors. Assume that a document is composed of several sheets. Each sheet contains drawing objects, including text, geometrical objects and groups. A group is simply set of drawing objects, possibly including other groups. A group must contain at least two drawing objects. A drawing object can be a direct member of at most one group. A geometrical object includes circles, ellipse, rectangles, lines and squares.

Q5

1. Draw state transition diagram for database Transaction. Database Management System support simultaneous execution of multiple transactions but runs only one transaction at a time. When one transaction is running other are waiting. While running transaction performs reading and writing operation. When transaction ends certain validations are performed by system. While running or during validation transaction might get aborted.

Q5

1. A simple digital watch has a display and two buttons to set it, the A button and B button. The watch has two modes of operations display time and set time. In the display time mode, hours and minutes are displayed, separated by flashing colon. The set time mode has two sub modes, set hours and set minutes. The A button is used to select modes. Each time it is pressed the mode advances in sequence display, set hours, set minutes, display etc.

Within the sub modes the B button is used to advance the hour or minutes once, each time it is pressed. Button must be released before they can generate another event.

Prepare Stare Transaction Diagram for Digital Watch.

Q2

1. Online Objective Test is conducted on internet at various prometric centers for certification. Students can practice for the test by appearing for mock test in which he can select difficulty level for test. Students register for final test. Students will get inform about test schedule which is prepared by test administrator. Author submits the questions which get stored in database. Administrator validates these questions. System generates the test by selecting the questions randomly. Student appears for the test & system does evaluation. Result of the test is mailed to the student.

Draw a Use Case Diagram for above case Study.

Q2

1. Draw the use case diagram for a placement agency site who provides the facility for candidates to register with their academic details, Personal details and skill set. Site also gives provision to update their profiles. Organizations can also register with their requirements. Search facility is provided to search job and suitable candidates.

Q2

1. Customer request for purchase to be made on credit card. Shop owner swap the card and request for the card and amount verification. This request first goes to local service provider which will be then routed to card provider bank. This bank then verifies the card details and purchase amount and respond back to shop owner.

Draw Use Case Diagram for above case study.