1. Name explanation: 40% (Non-translation question, need to explain the meaning of the word)
   - A. Deadlock
   - B. Binary Search Tree
   - C. XML
   - D. DNS
   - E. FTP
   - F. Waterfall model
   - G. RFID
   - H. Data Flow Diagram

2. Write an algorithm to calculating the sum of two integers. (15%)

3. A binary tree has 10 nodes. The inorder and preorder traversal of the tree are shown below.
   
   Preorder: JCBADFEIGH
   Inorder: ABCEDFJGIH
   
   Please draw the tree. (15%)

4. Show the contents of stack $S_1$ and the value of variables $x$ and $y$ after the following algorithm segment is executed. (15%)

   stack ($S_1$)
   push ($S_1$, 5)
   push ($S_1$, 3)
   push ($S_1$, 2)
   if (not empty($S_1$)) pop ($S_1$, $x$)
   if (not empty($S_1$)) pop ($S_1$, $y$)
   push ($S_1$, 6)

5. Using the bubble sort algorithm, manually sort the following list and show your work in each pass (15%)

   14 7 23 31 40 56 78 9 2