1. (20%) Explain the following concepts briefly
    A. (4%) WiMax
    B. (4%) Web 2.0
    C. (4%) ITS (Intelligent Tutoring Systems) and give an example
    D. (4%) CSCL (Computer supported collaborative learning)
    E. (4%) Show how the array below appears in a machine's memory when stored in column major order and in row major order.

N	E	E	E
L	X	L	N
T	C	L	T

2. (15 %) Design a procedure to print a linked list in reverse order using a stack.

3. (15 %) What is the result of compiling and running the following program? Explain it?
    (a) Prints: F, B, I   (b) Prints: E, A, H
    (c) Compile-time error   (d) Run-time error
    (e) None of the above

```
class NLT9701 {
  public static void main(String[] args) {
    int[][] a1 = {{A, B, C},{D, E, F},{G, H, I, J}};
    System.out.print(a1[1][2]+","+a1[0][1]+","+a1[2][2]);
}}
```
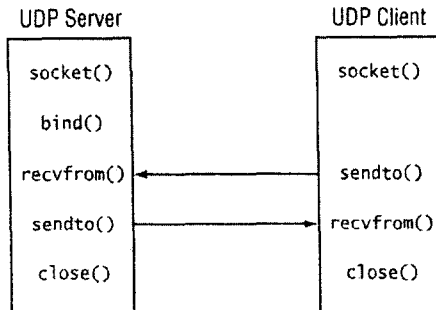
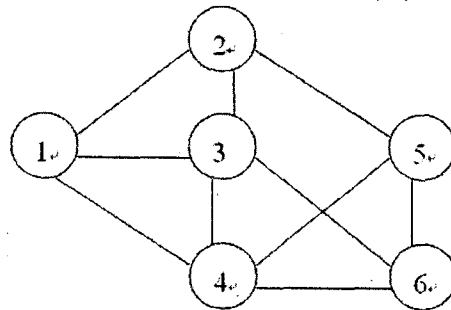4. (10%) What does the program block below do and what is its output?
```
string logFile = "LOGFILE.TXT";
FileStream fs = new FileStream(logFile,
FileMode.OpenOrCreate, FileAccess.Write);
StreamWriter sw = new StreamWriter(fs);
StreamReader sr = new StreamReader(fs);
sw.WriteLine("First log entry");
sw.WriteLine("Second log entry");
while(sr.Peek() > -1)
{
    Console.WriteLine(sr.ReadLine());
}
```

參考用

注意：背面有試題

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＊請在試卷答案卷（卡）內作答

5. (10%) A UDP client/server communication mechanism is implemented and illustrated as the figure below. Please draw a figure that illustrates how client/server communication is implemented if TCP protocol is used. (10%)
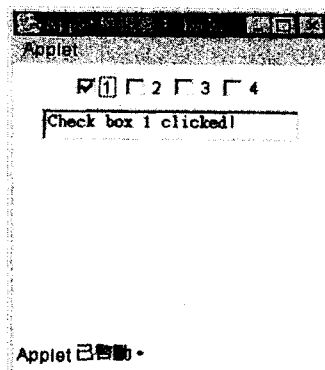

6. (10%) Please traverse the graph below in depth-first and breadth-first order with node 1 as the starting node. Write down the traversal sequence with the two traversal order (If more than one node can be visited next, always select the one with the smallest value to visit first). (10%)

7. (10%)What are threads? Describe a situation in which your program must contain several threads.

8. (10%) Given the graphical user interface below, what graphical user interface objects will you need to implement the interface?

注意：背面有試題