注意事項：

1. 本試題共 4 題，配分共 100 分。
2. 請標明大題、子題編號作答，不必抄題。
3. 全部答案均須在答案卷之答案欄內作答，否則不予計分。

(30%) 1. Explain the following terms
- (6%) (1).　Web 2.0
- (6%) (2).　Cloud computing
- (6%) (3).　Overloading
- (6%) (4).　OOP
- (6%) (5).　Divide and Conquer

(20%) 2. Identify and correct the invalid Java statements, if any.
- (5%) (1).　apes = monkeys + gorillas
- (5%) (2).　tigers = 3
- (5%) (3).　Lions + tigers = cats;
- (5%) (4).　zebras += 5;

(25%) 3. What will the following code print?

```
int count = 1;
while (count <= 3)
{
    System.out.print(count + " ");
    count++;
}
```

(25%) 4. What is the big-O running time of the following subroutine, as a function of n?

```
int mystery4(int n) {
    int x = 0;
    for (int i = 0;  i <  n * n * n  ;  ++i)
        for (int j = i;  j < n;  ++j)
            ++x;
    return x;
}
```