

CompSci 101 Test First Semester 2006

ANSWER SHEET

Surname

Forenames

Student ID

Login name(UPI)

Examiner to complete:

Question	Mark
1 – 15	(/45)
16	(/7)
17	(/6)
18	(/10)
19	(/6)
20	(/10)
21	(/6)
22	(/10)
Total	(/100)

CONTINUED

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SECTION A: MULTIPLE CHOICE QUESTIONS

Each question in this section is worth 3 marks. **Circle** the letter corresponding to your choice. There is only one correct answer for each question.

1.	(a)	(b)	(c)	(d)	☒ (e)
2.	(a)	(b)	(c)	☒ (d)	(e)
3.	(a)	(b)	(c)	☒ (d)	(e)
4.	(a)	(b)	(c)	(d)	☒ (e)
5.	☒ (a)	(b)	(c)	(d)	(e)
6.	☒ (a)	(b)	(c)	(d)	(e)
7.	(a)	(b)	(c)	☒ (d)	(e)
8.	(a)	☒ (b)	(c)	(d)	(e)
9.	☒ (a)	(b)	(c)	(d)	(e)
10.	☒ (a)	(b)	(c)	(d)	(e)
11.	(a)	☒ (b)	(c)	(d)	(e)
12.	(a)	(b)	(c)	☒ (d)	(e)
13.	(a)	(b)	(c)	(d)	☒ (e)
14.	(a)	(b)	(c)	☒ (d)	(e)
15.	☒ (a)	(b)	(c)	(d)	(e)

SECTION B

Write your answers in the spaces provided.

Question 16 (7 marks)

Locate and circle the 3 syntax errors and the logic error. You do not need to provide corrections for the 3 syntax errors, but you do need to provide a correction for the logic error.

```
public void class Addition {  
  
    public void start() {  
        int a = 10;  
        int b = 20;  
        int c = sum(a, b)  
        System.out.println(a + b + "=" + c);  
    }  
  
    private sum(int x, int y) {  
        return x + y;  
    }  
}
```

+ "+" +

(7 marks)

Question 17 (6 marks)

Show the output below.

1. false
2. true
3. true

(6 marks)

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Question 18 (10 marks)

Complete the code in the space provided below

```
totalCans =      Integer.parseInt(input);

numBigBoxes =      totalCans / CANS_PER_BIG_BOX;

leftOverCans =      totalCans % CANS_PER_BIG_BOX;

numSmallBoxes =      leftOverCans / CANS_PER_SMALL_BOX;

leftOverCans =      leftOverCans % CANS_PER_SMALL_BOX;
```

(10 marks)

Question 19 (6 marks)

Show the output below.

```
Line 1
Line 4
Line 6 OUT LOUD
```

(6 marks)

Question 20 (10 marks)

Complete the method definition below.

```
private String getHoursAndMinutes( int totalMinutes ) {  
  
    int hours = totalMinutes/60;  
    int minutes = totalMinutes%60;  
    String minutesS = "" + minutes;  
  
    if ( minutes<10 ) {  
        minutesS = "0" + minutes;  
    }  
  
    return "" + hours + ":" + minutesS;  
  
}
```

(10 marks)

Question 21 (6 marks)

Complete the method definition below.

```
private int findValue(int[] nums, int value) {  
  
    for (int i = 0; i < nums.length; i++) {  
        if (nums[i] == value) {  
            return i;  
        }  
    }  
    return -1;  
  
}
```

(6 marks)

Question 22 (10 marks)

Complete the Computer class definition below.

```
public class Computer {  
  
    private double speed;  
    private int memory;  
    private int diskSpace;  
  
    public Computer(double initSpeed, int initMemory,  
                    int initDiskSpace) {  
  
        speed = initSpeed;  
        memory = initMemory;  
        diskSpace = initDiskSpace;  
  
    }  
  
    public String toString() {  
  
        return speed + "GHz " + memory + "MB " + diskSpace  
                + "GB storage";  
  
    }  
  
    public void upgradeMemory(int extraMemory) {  
  
        memory += extraMemory;  
  
    }  
  
    public void replaceCPU(double newSpeed) {  
  
        speed = newSpeed;  
  
    }  
}
```

(10 marks)

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ROUGH WORKING
(Will not be marked)
