



*Philadelphia University*  
*Faculty of Engineering*

## **Marking Scheme**

Examination Paper

Department of CE

### ***Module: Programming Language (630203)***

Second Exam

Second Semester

Date: 03/05/2011

Section 5

Weighting 15% of the module total

Lecturer:

Dr. Qadri Hamarsheh

Coordinator:

Dr. Qadri Hamarsheh

Internal Examiner:

Eng. Anis Nazer

## Marking Scheme Programming Language (630203)

The presented exam questions are organized to overcome course material, the exam contains 4 questions; *all questions* are compulsory requested to be answered. Thus, the student is permitted to answer any question out of the existing ones in this section.

### Marking Assignments

The following scheme shows the marks assignments for each question. They show also the steps for which a student can get marks along the related procedure he/she achieves.

**Question 1** This question is attributed with 5 marks if answered properly

The answer for this question as the following:

1) There are two types of \_\_\_\_ parameters: value parameters and reference parameters.

- a. formal
- b. actual
- c. active
- d. Passive

2) The statement: `return 8, 10;` returns the value \_\_\_\_.

- a. 8
- b. 10
- c. 18
- d. 80

3) Given the following function:

```
int next(int x)
{
    return (x + 1);
}
```

what is the output of the following statement?

```
cout << next(next(5)) << endl;
```

- a. 5
- b. 6
- c. 7
- d. 8

4) Suppose that `printHeading` is a function without any parameters. Which of the following is a valid function heading?

- a. `void printHeading();`
- b. `void printHeading()`
- c. `void printHeading(noParameters);`
- d. `void printHeading(void)`

5) Suppose that you have the following function.

```
void mystery(int& one, int two)
{
    int temp
    temp = one;
    one = two;
    two = temp;
}
```

What are the values of `x` and `y` after the following statements? (Assume that variables are properly declared.)

```
x = 10;
y = 15;
mystery(x, y);
```

- a. `x = 10; y = 10`
- b. `x = 10; y = 15`
- c. `x = 15; y = 10`
- d. `x = 15; y = 15`

**Question 2** This question is attributed with 2 marks if answered properly

The answer for this question as the following:

Code	Output
<pre>#include &lt;iostream&gt; using namespace std; void one(int x, int&amp; y); void two(int&amp; s, int t); int main() {     int u = 1;     int v = 2;     one(u, v);     cout &lt;&lt; u &lt;&lt; " " &lt;&lt; v &lt;&lt; endl;     two(u, v);     cout &lt;&lt; u &lt;&lt; " " &lt;&lt; v &lt;&lt; endl;     return 0; }</pre>	<pre>void one(int x, int&amp; y) {     int a;     a = x;     x = y;     y = a; }  void two(int&amp; s, int t) {     int b;     b = s - t;     s = t + b + 2;     t = 4 * b; }</pre>

**Question 3** This question is attributed with 3 marks, if answered properly.

The complete code for this question as the following:

```
#include <iostream>
#include <cmath>
using namespace std;
const double PI = 3.1419;
int main()
{
    double r;
    cout << " sqrt(PI) = " << sqrt(PI) << endl;
    cout << "Enter a value of r: ";
    cin >> r;
    cout << endl;
    cout << "4 * PI * (r to the power of 2) = "
         << 4 * PI * pow(r, 2) << endl;
    cout << "4 / 3 * PI * (r to the power of 3) = "
         << 4 / 3 * PI * pow(r, 3) << endl;
    return 0;
}
```

(1 mark)

(2 marks)

**Question 4** This question is attributed with 5 marks, if answered properly.

The complete code for this question as the following:

```
#include <iostream>
using namespace std;
void computeCircle ( double& area, double& circ, double r );
int main ()
{ double a, c, r;
  cout << " Enter the radius: ";
  cin >> r;
  computeCircle (a, c, r ) ;
  cout << " The area of a circle of radius " << r << " is " << a
        << "\nand its circumference is " << c << endl ;
  return 0;
}
```

(1 mark)

(2 marks)

(2 marks)