ENGG1111 – Quiz
2017/2018
Part A (12 marks)

Write down the output of the following programs in the space provided.

A1 (1 mark):

```
#include <iostream>
using namespace std;
int main() {
        bool b = true;
        b = !b;
        if (!b)
                cout << "1";
        else
                cout << "2";
        if (b)
                cout << "3";
        else
                cout << "4";
        return 0;
}
```

Output:

A2 (1 mark):

```
#include <iostream>
using namespace std;
int main() {
        int a = 1, b = 2, c = 3, d = 4;
        switch (c) {
                case 1:
                cout << "a";
                case 2:
                cout << "b";
                case 3:
                cout << "c";
                case 4:
                cout << "d";
        }
        return 0;
}
```

Output:

A3 (1 mark):

```
#include <iostream>
using namespace std;
int main() {
        int i = 42;
        i %= 13;
        cout << i;
        i /= 2;
        cout << i;
        return 0;
}
```

Output:

A4 (1 mark):

```
#include <iostream>
using namespace std;
int main() {
        int x = 42;
        int y = 0;
        if (x) cout << "1";
        if (y) cout << "2";
        if (x || y) cout << "3";
        if (x && y) cout << "4";
        return 0;
}
```

Output:

A5 (1 mark):

```
#include <iostream>
using namespace std;
int main() {
        int x = 42;
        cout << x++;
        if (--x == 42) cout << x;
        cout << x++;
        return 0;
}
```

Output:

A6 (1 mark):

```cpp
#include <iostream>
using namespace std;
int main() {
        int x = 2;
        double d = 8.0;
        cout << 1 - x / d + 4 % 2;
        return 0;
}
```

Output:

A7 (2 marks):

```cpp
#include <iostream>
using namespace std;
int main() {
        int x = 3;
        int y = 8;
        while (x++ < 5 || y-- > 6) {
                cout << x << y << " ";
        }
        return 0;
}
```

Output:

A8 (2 marks):

```cpp
#include <iostream>
using namespace std;
int a(int x) {
        return x*x;
}
int b(int x) {
        return x*2;
}
int main() {
        for (int i=1;i<4;i++) {
                cout << b(a(i)) << " ";
        }
        return 0;
}
```

Output:

A9 (2 marks):

```cpp
#include <iostream>
using namespace std;
int x(int &i) {
        i+=1;
        return i-2;
}
int main() {
        int i = 42;
        for (int i=0;i<5;i++) {
                cout << x(i) << " ";
        }
        cout << i;
        return 0;
}
```

Output:

Part A Marks: _____ / 12