

## School of Computing and Information Technology

**Student to complete:**

Family name	
Other names	
Student number	
Table number	

### **CSIT110 Fundamental Programming with Python Wollongong Campus**

## **Examination Paper Autumn Session 2017**

Exam duration	3 hours
Items permitted by examiner	None
Aids supplied	None
Directions to students	7 questions to be answered. This paper is worth 50% of the total marks for the subject.

**This exam paper must not be removed from the exam venue**

**Total number of marks on this exam is 100.**

1. **(15 points)** Write a program that uses **meaningful variable names** and produces the following output:

Username	Phone	Email
matt	1234	ma77@code.org
joe	9823	mjoe@python.com
lee	3463	lee81@gmail.com

The first and third columns must have **left alignment**, and the second column must have **right alignment**.

2. **(15 points)** Write a program that asks the user to enter two integers and displays the sum and product of them. The program should work as follows:

```
Enter the first integer: 10
Enter the second integer: 35
The sum of 10 and 35 is 45.
The product of 10 and 35 is 350.
```

The program must use **string concatenation** to display the **sum output line**.  
The program must use **string format** to display the **product output line**.

3. **(15 points)** The following table shows the subscription prices of 3 math journals

	Student	Non-student
Journal of Algebra	\$30	\$50
Journal of Geometry	\$35	\$60
Journal of Number Theory	\$40	\$70

Write a program that asks the user to select the journals and then displays the cost. The program should work as follows:

```
Are you a student? (Y/N): Y
Subscribe to Journal of Algebra? (Y/N): Y
Subscribe to Journal of Geometry? (Y/N): Y
Subscribe to Journal of Number Theory? (Y/N): N
The total cost is: $65
```

4. **(15 points)** Write a program that uses the **for loop** that asks the user to enter an integer and then displays the times table by that number. The program should work as follows:

```
Enter an integer: 5
Times table by 5:
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

5. **(15 points)** Write a program that uses the **while loop** that asks the user to enter integer numbers and then displays the sum of them. The user has to enter q to quit the program. The program should work as follows:

```
Enter an integer or q to quit: 5
Enter an integer or q to quit: 10
Enter an integer or q to quit: 300
Enter an integer or q to quit: q
The sum is 315
```

6. **(10 points)** Given the following python code

```
list2d = [
[1, 2, 3, 4],
[9, 8, 7, 6]
]
a = list2d[0][2] + list2d[1][0]
print(a)
```

What is the output of the above program?

7. **(15 points)** Write a program that displays a random four-digit code such as 0-2-9-9. The program should generate a random code in the range from 0-0-0-0 to 9-9-9-9.

**END OF EXAM**