

**Question 8**

- q. The set of rules followed by a computer programming language:  
a. Syntax

**Question 28**

- q. (3 and 0) and (8 == 4 \* 2)  
a. FALSE ... because 0 is false

**Question 33**

- q. [10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0]  
a. range(10,-1,-1)

**Question 36**

- q. When the code below is run, what does it print out?

```
test = 40
if (test % 4 == 0):
    print("yellow")
if (test % 5 == 0):
    print("azure")
if (test % 7 == 0):
    print("charcoal")
else
    print("gold")
```

- a. Yellow,azure,gold

### Question 41

q. Identify four errors in the following program.

```
1: 125staff = ["Penny", "Zac", "Meetha", "Allison", "Sam", "Hannah", "Dharani"]
2: i = 0
3: while i < len(125staff):
4:     print (125staff[i], "is the best!")
5: print (Happy Wednesday!)
6: for i in 125staff:
7:     print(125staff[i])
```

For each error, give the line number and then describe the problem.

a. Answer:

- a. Line 1, variable starts with number
- b. Line 3, i is always 0 so the loop is infinite
- c. Line 5, should have quotations around "happy Wednesday!"
- d. Line 6 to 7, I is a string and should be an integer.

### Question 45

q. Write a program that counts down from ten to zero by using a for loop.

```
a. for i in range(10,-1,-1):
    print(i)
```

**Question 47**

q. Write a loop to ask the user for a number and then print the numbers from 0 to that number (inclusive). Continue to ask for a number and count up to that number until the number entered is odd. You can assume all numbers are integers.

a.

```
number= int(input("enter a number"))  
  
if number % 2 == 0 :  
    if number >= 0:  
        number += 1  
        for i in range(0,number):  
            print(i)  
  
    if number < 0:  
        number -=1  
        for i in range(0,number,-1):  
            print(i)  
  
number = int(input("enter a number"))
```