J277 OCR Exam Reference Language

```
//converting to another data type
str(3) returns "3"
int("3") returns 3
float("3.14") returns 3.14
real("4.52") return 4.52
bool("True") returns True
```

```
//taking a input from a user
name = INPUT("Please enter your name")
```

```
//for loop (count controlled)
FOR I = 0 to 7
    PRINT("Hello")
NEXT i
//will print Hello 8 times
```

```
//while loop (condition controlled)
WHILE answer != "computer"
    answer = INPUT("What is the password?")
ENDWHILE
//will keep asking ^^ till computer is entered
```

```
//do until loop (condition controlled)
DO
    Answer = INPUT("What is the password?")
UNTIL answer == "computer"
```

```
//selection (if statement)
if answer == "Yes" then
   print("Correct")
elseif answer == "No" then
   print("Wrong")
else
   print("Error")
endif
```

```
//case select or switch
switch day :
   case "Sat":
     print("Saturday")
   case "Sun":
     print("Sunday")
   default:
     print("Weekday")
endswitch
```

```
//substrings
subject = "ComputerScience"
subject.length gives the value 15

subject.substring(3,5) returns "puter"
subject.left(4) returns "Comp"
subject.right(3) returns "nce"
subject.upper gives "COMPUTERSCIENCE"
subject.lower gives "computerscience"

ASC(A) returns 65 (numerical)
CHR(97) returns 'a' (char)

print("hello" + " world") gives "hello world"
```

```
//file handling
myFile = open("sample.txt")
myFile.close()
myFile.readLine() returns the next line in the file
myFile.writeLine("Add new line")
//Note that the line will be written to the END of the file.

while NOT myFile.endOfFile()
  print(myFile.readLine()) //read all the lines in the file
endwhile

newFile("myText.txt") //Creates a new text file called "myText"
```

```
//procedure dont return a value
procedure multiply(num1, num2)
   print(num1 * num2)
endprocedure

multiply(2,4) //would print 8
//function returns a value
function squared(number)
   squared = number^2
   return squared
endfunction
newValue = squared(4)
print(newValue) //would print 16
```

```
//arrays
array colours[5]
//Creates 1D array with 5 elements(index 0 to 4).
array colours = ["Blue", "Pink", "Green", "Yellow", "Red"]
//Arrays can be declared with values assigned.
array gameboard[8,8] //Creates 2D array with 8 elements(index 0 to 7).
colours[1] = "Purple" //changes Pink to Purple
```

```
//random
myVariable = random(1,6)
//Creates a random integer between 1 and 6 inclusive.
```