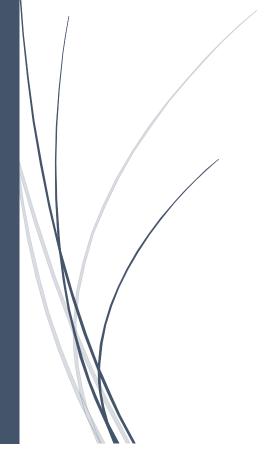# AI Diploma

Assessment Three

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Contents

Memory Address Python:

- To retrieve the memory address of any python object the function **id(object)** is used, it returns a unique number which changes every run of the program.

- To convert the returned id of the memory cell into its hexadecimal representation the function used is **hex(object)**

- So, the full instruction will be **print(hex(id(object)))**

```
In [1]: x=5
        y=8.5
        z="Ahmed"
        print(hex(id(x)))
        print(hex(id(y)))
        print(hex(id(z)))

        0x7ff99af2a210
        0x1f5578a0910
        0x1f55790c270

In [ ]:
```

Mathematical precedence:

Precedence	Associativity	Operator	Description
18	Left-to-right	()	Parentheses (grouping)
17	Left-to-right	f(args...)	Function call
16	Left-to-right	x[index:index]	Slicing
15	Left-to-right	x[index]	Array Subscription
14	Right-to-left	**	Exponentiation
13	Left-to-right	~x	Bitwise not
12	Left-to-right	+x -x	Positive, Negative
11	Left-to-right	* / %	Multiplication Division Modulo
10	Left-to-right	+ -	Addition Subtraction
9	Left-to-right	<< >>	Bitwise left shift Bitwise right shift
8	Left-to-right	&	Bitwise AND
7	Left-to-right	^	Bitwise XOR
6	Left-to-right	|	Bitwise OR
5	Left-to-right	in, not in, is, is not, <, <=, >, >=, <>, == !=	Membership Relational Equality Inequality
4	Left-to-right	not x	Boolean NOT
3	Left-to-right	and	Boolean AND
2	Left-to-right	or	Boolean OR
1	Left-to-right	lambda	Lambda expression

References

[1] w3schools, "w3schools," [Online]. Available:

https://www.w3schools.com/python/ref_func_id.asp.

[2] GeeksforGeeks, "GeeksforGeeks," 15 10 2020. [Online]. Available:

https://www.geeksforgeeks.org/python-hex-function/.

[3] J. Cavin, "study.com," [Online]. Available: https://study.com/academy/lesson/python-

operator-of-precedence.html.