

MINISTRY OF EDUCATION, SINGAPORE in collaboration with CAMBRIDGE ASSESSMENT INTERNATIONAL EDUCATION General Certificate of Education Ordinary Level

COMPUTING 7155/02

Paper 2 Lab-based SPECIMEN INSERT

For examination from 2025

2 hours 30 minutes

Quick Reference Guide for Python

This quick reference guide shows some examples of the Python language constructs. The complete Python language is not limited to these examples.

This document consists of 4 printed pages.





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1 Identifiers

When naming variables, functions and modules, the following rules must be observed:

- Names should begin with character 'a'-'z' or 'A'-'Z' or '_' and followed by alphanumeric characters or '.'
- Reserved words should not be used.
- User-defined identifiers are case sensitive.

2 Comments and Documentation Strings

```
# This is a comment
"""
This is a documentation string over
multiple lines
"""
```

3 Input/Output

```
s = input("Prompt for data: ")

print("This is a string")

f = open("input.txt", "r")
line = f.readline()
character = f.read(1)
f.close()

with open("output.txt", "w") as f:
    f.write("Output Line\n")
```

4 Import

```
import <module>
from <module> import <name>
```

5 Data Types

Туре	Example	Notes
int	-3	integer
float	3.1415926	real number
bool	True	boolean
str	"Hello"	string (immutable)
list	[2, 3, 5]	series of values
dict	{'key':'value'}	key-value pairs

6 Assignment

Statement	Notes	
a = 1	normal assignment	
b += c	augmented assignment equivalent to b = b + c	
x[y] = z	assigns z to index y of list x or assigns z to key y of dictionary x	
del a	deletes variable a	
del x[y]	deletes key ${\rm y}$ and its value from dictionary ${\rm x}$	

7 Arithmetic Operators

Operator	Notes	
+ -	add, subtract	
* /	multiply, divide	
િ	remainder or modulus	
* *	exponential or power	
//	floor division	

8 Relational Operators

Operator	Notes
==	equal to
!=	not equal to
> >=	greater than, greater than or equal to
< <=	less than, less than or equal to

9 Boolean Expressions

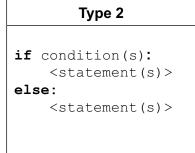
Boolean Expression	Notes
a and b	logical and
a or b	logical or
not a	logical not

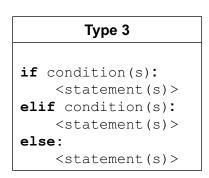
10 Sequence (List/String) Operations

Operator	Notes
<seq> + <seq></seq></seq>	concatenation
<int> * <seq></seq></int>	repetition
<seq>[index]</seq>	indexing
<pre><seq>[start:stop]</seq></pre>	slicing
<pre><seq>[start:stop:step]</seq></pre>	slicing with step
<value> in <seq></seq></value>	membership testing

11 Selection

Type 1			
if	<pre>condition(s): <statement(s)></statement(s)></pre>		





12 Iteration

while	condition(s):
< 5	statement(s)>

while loop

13 Functions

14 Built-in Functions

(a) Basic Functions

abs()	chr()	float()	input()
int()	len()	max()	min()
open()	ord()	print()	range()
round()	str()	<file>.close()</file>	<file>.read()</file>
<file>.readline()</file>	<file>.write()</file>	<str>.endswith()</str>	<str>.find()</str>
<str>.format()</str>	<str>.isalnum()</str>	<str>.isalpha()</str>	<str>.isdigit()</str>
<str>.islower()</str>	<str>.isspace()</str>	<str>.isupper()</str>	<str>.lower()</str>
<str>.split()</str>	<str>.startswith()</str>	<str>.upper()</str>	

(b) Math Module

ceil()	floor()	pow()	sqrt()	trunc()
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(c) Random Module

randint()	random()	
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15 Reserved Words

Reserved words are part of the syntax of the language. They cannot be used as identifiers.

False	None	True	and	as
assert	break	class	continue	def
del	elif	else	except	finally
for	from	global	if	import
in	is	lambda	nonlocal	not
or	pass	raise	return	try
while	with	yield		

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