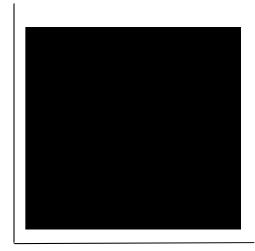
Please fill in your Student Number and Name.			
Student Number	:		



University of Cape Town ~ Department of Computer Science Computer Science 1018F ~ 2008

Test 2

Question	Max	Mark	Internal	External
1	8			
2	12			
3	10			
TOTAL	30			

Marks: 30

Time : 40 minutes

Instructions:

a) Answer all questions.

b) Write your answers in the space provided.

c) Show all calculations where applicable.

Question 1 [8]

a)	What are the differences between the following Python statements:	[3]
	import struct	
	from struct import *	
	from struct import pack	
b)	What is multiple inheritance and does Python support it?	[3]
c)	Rewrite the following Python statement using a more conventional control structure: r = (a, b) [int(bool(a > b))]	[2]

Question 2 [12]

Write a function called CheckPalindromes that reads in an ascii file containing a list of words
seperated by spaces and check to see if they are palindromes. Palindromes are words, such as "toot"
and "pop", that remain the same if read forwards or backwards. CheckPalindromes should take the
name of the palindrome file as an argument. If a filename is not supplied the function should try to
open "palindromes.txt" in the current working directory. The function should report any errors
encountered in opening the file and also print out those words that are not palindromes. Finally, the
function should return <i>True</i> if all the words in the file are palindromes and <i>False</i> otherwise.

Question 3 [10]

)	Write python code for a <i>Bird</i> class which has a private boolean attribute <i>canfly</i> that is set du object creation. [3]	uri
		_
	Create a new class <i>Dodo</i> that inherits from the <i>Bird</i> class and automatically assigns <i>canfly</i> as <i>False</i> during object creation by calling the <i>Bird</i> initialization method. [3]	S
	Modify the <i>Dodo</i> class to include a method <i>Extinct()</i> that will report "Dodos are extinct" if t are no Dodo objects, "I am the last of the Dodos" if there is only one Dodo object and "I am alone" otherwise. [4]	
