**CPSC 323-05  
Assignment-1**

1. Tokenize the follow Python code, make a table of tokens and lexemes along with token count (Refer Lexical Analysis slides for reference) (10 marks)

def calculate\_square(num):

result = num \*\* 2

return result

print(calculate\_square(5))

The following tokens could be Keyword (includes functions), Identifier, Operator,

Constant, Separator (Punctuation & Parentheses).  
  
2. What is the lexeme associated with the token num in the Python code snippet provided in question 1? (1 mark)

3. Identify and list any potential lexical errors in the following Python code: (1 mark)  
 if x > 10

print("x is greater than 10")

4. Tokenize the following C code, make a table of tokens and lexemes along with token count (10 marks)

#include <stdio.h>

int main() {

printf("Hello, World!\n");

return 0;

}

5. Identify the lexeme associated with the token ‘return’ in the C code provided in question 4. (1 mark)

6. What is a potential lexical error in the following C code? (1 mark)

float price = 9.99.

7. Consider the following C code snippet:

int main() {

int variable123 = 42;

float pi\_value = 3.14;

return 0;

}  
 Identify and list the lexemes associated with the identifiers in the code. (6 marks)