

**United International University (UIU)**  
Dept. of Computer Science & Engineering (CSE)

**FINAL** Year: 2022 Trimester: Spring Program:

BSCSE Course: CSI 412 Compiler Lab

**Marks: 20, Time: 60 Minutes**

1.	<p>Write a code in any language to evaluate an infix expression and verify the result of it. First take an infix expression, evaluate it. Then take a result as input and verify your answer with given one. If verified write “Varified” or else “ Not verified”.</p> <table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>Expression: (2+5)*2 Result: 14</td><td>Verified</td></tr><tr><td>Expression: (2+5)*2 Result: 18</td><td>Not Verified</td></tr></table>	Sample Input	Sample Output	Expression: (2+5)*2 Result: 14	Verified	Expression: (2+5)*2 Result: 18	Not Verified	[10]
Sample Input	Sample Output							
Expression: (2+5)*2 Result: 14	Verified							
Expression: (2+5)*2 Result: 18	Not Verified							
2.	<p>Write a code in any language to tokenize an infix expression. Here,</p> <p>Variables = ID</p> <p>Puntuations = PUNC</p> <p>Constant = CONST</p> <p>Operators = OP</p> <p>Keywords = KEY</p> <table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>position = initial + rate * 60</td><td>&lt;ID,1&gt;&lt;PUNC,1&gt;&lt;ID,2&gt;&lt;OP,1&gt;&lt;ID,3&gt;&lt;OP,2&gt;&lt;CONST,1&gt;</td></tr><tr><td>int a=b+rate;</td><td>&lt;KEY,1&gt;&lt;ID,1&gt;&lt;PUNC,1&gt;&lt;ID,2&gt;&lt;OP,1&gt;&lt;ID,3&gt;&lt;PUNC,2&gt;</td></tr></table>	Sample Input	Sample Output	position = initial + rate * 60	<ID,1><PUNC,1><ID,2><OP,1><ID,3><OP,2><CONST,1>	int a=b+rate;	<KEY,1><ID,1><PUNC,1><ID,2><OP,1><ID,3><PUNC,2>	[10]
Sample Input	Sample Output							
position = initial + rate * 60	<ID,1><PUNC,1><ID,2><OP,1><ID,3><OP,2><CONST,1>							
int a=b+rate;	<KEY,1><ID,1><PUNC,1><ID,2><OP,1><ID,3><PUNC,2>							