 **AMITY INTERNATIONAL SCHOOL, MAYUR VIHAR**

**SUBJECT: Computer Science**

**CLASS: XI**

**CHAPTER 3: Python Programming Fundamentals (Assignment 1)**

**Assignment:**

1. Identify invalid variable names from the following, give reason for each:

Group, if, int, total marks, S.I., volume, tot\_strength, #tag, tag$, 9a

1. Find the output of the following code:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (1) | x=3  y=x+2  x+=y  print(x,y) 8 , 5 | (2) | x=-2  y=2  x+=y  y-=x  print(x,y)  0 , 2 | (3) | a=5  b=2\*a  a+=a+b  b\*=a+b  print(a,b)  10 , 300 |
| (4) | p=10  q=20  p\*=q/3  q+=p+q\*2  print(p,q)  66.66666666666667  126.66666666666667 | (5) | p=5%2  q=p\*\*4  r=p//q  p+=p+q+r  r+=p+q+r  q-=p+q\*r  print(p,q,r)  4 -10 7 | (6) | p=21//5  q=p%4  r=p\*q  p+=p+q-r  r\*=p-q+r  q+=p+q  print(p,q,r)  8 8 0 |

1. Write Python expressions equivalent to the following arithmetic/algebraic expressions:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| (1) | (A+B)/2 | (2) | (3\*\*2+9\*\*3)/2 | (3) | 3\*\*2+(9\*\*3/5) |
| (4) | A\*\*0.5+(a+2)/2 | (5) | 8-6+(6\*sum/7)-var\*\*0.5 | (6) | (u ,a, t are variables)  U\*t+(a\*t\*\*2)/2 |

1. Write Python expressions to represent the following situations:
   1. Add remainder of 6/5 to the product of 6 and 5. 6%5+(6\*5)
   2. Find the square root of the sum of 8 and 43. (8+4\*\*3)\*\*0.5
   3. Find the sum of the square roots of 8 and 43. 8\*\*0.5+43\*\*0.5
   4. Find the integral part of the quotient when 63 is divided by 29. 63//29