

INDIAN SCHOOL MUSCAT
CLASS XI
(2019-2020)
COMPUTER SCIENCE (Code 083)
WS 8 – PYTHON MODULES

Attempt the following questions in the class work note book:

1. Write the equivalent Python expressions and the output for the following :
 - i. $X = \sqrt{a^2 + b^2 + c^2}$ assume that $a = 2$, $b = 3$ and $c = 2$.
 - ii. $a = x^2 - x$ where $x = 2$
 - iii. $b = (R + S)^4$ assume $R = 2$ & $S = 4$
 - iv. $c = 2 - 4y * (P + Q)^2$ where $y = 2$, $P = 4$ and $Q = 3$
 - v. $e = (A + B)^2 + (C + D)^2$ where $A = 3$, $B = 2$, $C = 5$ and $D = 5$

2. Write the output for the following :

```
import math
print ("math.pow(3,3)=",math.pow(3,3))
print("math.sqrt(65)=",math.sqrt(65))
print("math.fabs(500.23)=",math.fabs(500.23))
print("math.fabs(-1500.73)=",math.fabs(-1500.73))
print("math.ceil(34.789) = ",math.ceil(34.789))
print("math.floor(34.789) = ",math.floor(34.789))
print("math.ceil(-5.67) = ",math.ceil(-5.67))
print("math.floor(-9234.32) = ",math.floor(-9234.32))
```

3. Consider the set of height measurements in feet of students in a class :

STUDENT	HEIGHT
Rishabh	5.9
Arnab	5.5
Rajan	6.1
Tapish	6.0
Ajay	7.2

Write a python program to calculate the average height of students in the class and median value using statistics module.

4. Write a program to guess a number between 1 and 8.
5. What is a python module?
6. Write a python program to calculate and print the average and median amount for the amount of donations received by a charitable organization as given below
Donations=[100,60,70,900,100,200,500,500,503,1000,1200] use statistics module.