

MPVM Ganga Gurukulam
CLASS – XII
COMPUTER SCIENCE
(Holiday Homework)

1. Out of the following, find the identifiers, which cannot be used for naming Variable or Functions in a Python program: [CBSE Delhi 2016]
_Cost, Price*Qty, float, switch, Address one, Delete, Number12, do
2. Out of the following find those identifiers, which can not be used for naming Variable or Functions in a Python Program:
Days * Rent, For, A_price, Grand Total, do, 2Clients, Participantl, My city
3. Name the function / method required for [CBSE SQP 2015]
 1. Finding second occurrence of m in madam.
 2. get the position of an item in the list.
4. Which string method is used to implement the following:
 1. To count the number of characters in the string.
 2. To change the first character of the string in capital letter.
 3. To check whether given character is letter or a number.
 4. To change lowercase to uppercase letter.
 5. Change one character into another character. [CBSE TextBook]
5. What is the difference between input() and raw_input()?
6. What are the two ways of output using print()?
7. Why does the expression 2 + 3*4 result in the value 14 and not the value 24?
8. How many times will Python execute the code inside the following while loop? You should answer the question without using the interpreter! Justify your answers.

```
i = 0
while i < 0 and i > 2 :
    print "Hello ..."
    i = i+1
```

9. How many times will Python execute the code inside the following while loop?

```
i = 1
while i < 10000 and i > 0 and 1:
    print " Hello ..."
    i = 2 * i
```

10. Convert the following for loop into while loop, for i in range (1,100):

```
if i % 4 == 2 :
    print i, "mod", 4 , "= 2"
```

11. Convert the following for loop into while loop.

```
for i in range(10):
    for j in range(i):
        print '$',
    print"
```

12. Rewrite the following for loop into while loop: [CBSE Text Book]

```
for a in range(25, 500, 25):
    print a
```

13. Rewrite the following for loop into while loop: [CBSE Text Book]

```
for a in range(90, 9, -9):
    print a
```

13. Convert the following while loop into for loop:

```
i = 0
while i < 100:
    if i % 2 == 0:
        print i, "is even"
    else:
        print i, "is odd"
    i = i + 1
```

14. Convert the following while loop into for loop

```
char = ""
print "Press Tab Enter to stop ..."
iteration = 0
while not char == "\t" and not iteration > 99:
    print "Continue?"
    char = raw_input()
    iteration += 1
```

15. Rewrite the following while loop into for loop:

```
i = 10
while i < 250:
    print i
    i = i + 50
```

16. Rewrite the following while loop into for loop:

```
i=88
while(i>=8): print i
i- = 8
```

17. Write for statement to print the series 10,20,30,, 300

18. Write for statement to print the series 105,98,91,... .7

19. Write the while loop to print the series: 5,10,15,...100

20. How many times is the following loop executed? [CBSE Text Book]
for a in range(100,10,-10):
print a.

21. How many times is the following loop executed? [CBSE Text Book]

```
i = 100
while (i<=200):
print i
i + =20
```

22. State whether the statement is True or False? No matter the underlying data type if values are equal returns true,

```
char ch1, ch2;
if (ch1==ch2)
print "Equal"
```

23. What are the logical operators of Python?

24. What is the difference between '/' and '//' ?

25. How can we import a module in Python?

26. What is the difference between parameters and arguments?

27. What are default arguments?

28. What are keyword arguments?

29. What are the advantages of keyword arguments?

30. What does "in" do?

31. What does “not in” do?

32. What does “slice” do?

33. What is the use of negative indices in slicing?

34. Explain find() function?

35. What are the differences between arrays and lists?

36. What is the difference between a tuple and a list?

37. Carefully observe the following python code and answer the question that follows:

```
x=5
def func2():
x=3
global x
x=x+1
print x
print x
```

38. Explain the output with respect to the scope of the variables.

39. Explain the two strategies employed by Python for memory allocation. [CBSE SQP 2016]

TOPIC – 2

Writing Python Programs

Question 1.

Rewrite the following code in Python after removing all syntax errors(s). Underline each correction done in the code. [CBSE Delhi-2016]

```
for Name in [Amar, Shveta, Parag]
if Name [0] = 's':
Print (Name)
```

Question 2.

Rewrite the following code in Python after removing all syntax errors(s). Underline each correction done in the code. [CBSE Outside Delhi-2016]

```
for Name in [Ramesh, Suraj, Priya]
if Name [0] = 'S':
Print (Name)
```

Question 3.

What will be the output of the following python code considering the following set of inputs?
AMAR

THREE

A123

1200

Also, explain the try and except used in the code.

Start = 0

while True :

Try:

Number = int (raw input ("Enter Number"))

break

except ValueError : start=start+2

print ("Re-enter an integer")

Print (start)

Question 4.

Give the output of following with justification. [CBSE SQP 2015]

```
x = 3
x+ = x-x
print x
```

Question 5.

What will be printed, when following Python code is executed? [CBSE SQP 2015]

```
class person:
    def init (self,id):
        self.id = id
arjun = person(150)
arjun. diet ['age'] = 50
print arjun.age + len(arjun. diet )
```

Justify your answer.

Question 6.

What would be the output of the following code snippets?

```
print 4+9
print "4+9"
```

Question 7.

Highlight the literals in the following program and also predict the output. Mention the types of variables in the program.

```
a=3
b='1'
c=a-2
d=a-c
e="Kathy"
f='went to party.'
g='with Sathy'
print a,g,e,f,a,g,"",",",d,g,"",",",c,g,"and his",e,f
```

Question 8.

What is the result of $4+4/2+2$?

Question 9.

Write the output from the following code: [CBSE Text Book]

```
x= 10
y = 20
if (x>y):
    print x+y
else:
    print x-y
```

Question 10.

Write the output of the following code:

```
print "Python is an \n interpreted \t Language"
```

Question 11.

Write the output from the following code:

```
s = 0
for I in range(10,2,-2):
    s+=I
print "sum= ",s
```

Question 12.

Write the output from the following code: [CBSE TextBook]

```
n = 50
i = 5
s = 0
while i<n:
    s+ = i
    i+ = 10
    print "i=",i
    print "sum=",s
```

Question 13.

Write the output from the following code: [CBSE TextBook]

```
n = 50
i = 5
s = 0
while i<n:
    s+ = i
    i+ = 10
    print "i=",i
    print "sum=",s
```

Question 14.

Observe the following program and answer the question that follows:

```
import random
```

```
x = 3
```

```
N = random.randint (1, x)
```

```
for 1 in range (N):
```

```
print 1, '#', 1 + 1
```

a. What is the minimum and maximum number of times the loop will execute?

b. Find out, which line of output(s) out of (i) to (iv) will not be expected from the program?

i. 0#1

ii. 1#2

iii. 2#3

iv. 3#4

Question 15.

Observe the following Python code carefully and obtain the output, which will appear on the screen after execution of it. [CBSE SQP 2016]

```
def Findoutput ():  
    L = "earn"  
    X = " "  
    count = 1  
    for i in L:  
        if i in ['a', 'e', 'i', 'o', 'u']:  
            x = x + 1. Swapcase ()  
        else:  
            if (count % 2 != 0):  
                x = x + str (len (L[:count]))  
            else:  
                x = x + 1  
            count = count + 1  
    print x  
Findoutput ()
```