

Holiday Homework

Class XII

Computer Science

- 1) Which value type does `input ()` return?
(a) Boolean (b) String (c) Int (d)Float
- 2) Which of the following is valid arithmetic operator in Python:
(i)in (ii) !=(iii) &(iv) %
- 3) Which of the following is valid logical operator in Python:
(i) not in (ii) = (iii) << (iv) //
- 4) Which value type does `bool ()` return?
(a) Boolean (b) String (c) Int (d)Float
- 5) Which of the following is valid membership operator in Python:
(i) and (ii) not (iii) is (iv) in

- 1) What will be the value of the expression?
`14 + 13 % 15` (a) 14 (b) 27 (c) 12 (d) 0
- 2) What will be the value of the expression?
`14 ** 12 % 10` (a) 4 (b) 7 (c) 12 (d) 10
- 3) What will be the value of the expression?
`14 % 10 * 3` (a) 14 (b) 10 (c) 12 (d) 30
- 4) What will be the value of the expression?
`(12 + 10 + 30) % 10` (a) 4 (b) 1 (c) 2 (d) 3
- 5) What will be the value of the expression?
`(12 % 10 % 3) ** 3` (a) 4 (b) 2 (c) 8 (d) 12

- 1) Following set of commands is executed in shell, what will be the output?
`print("corona virus" [4 : 8])` : (a) ona (b) na v (c) coro (d) ona v
- 2) Following set of commands is executed in shell, what will be the output?
`print("corona virus" [2 : :])` : (a) ona virus (b) ona virus (c) ona viru (d) ona F
- 3) Following set of commands is executed in shell, what will be the output?
`print("corona virus" [: 5])` : (a) coron (b) coro (c) oron (d) coron virus
- 4) Following set of commands is executed in shell, what will be the output?
`print("corona virus" [2: 5:3])` : (a) n (b) r (c) i (d) o
- 5) Following set of commands is executed in shell, what will be the output?
`print("corona virus" [2 : 4])` : (a) r u (b) n v (c) c o (d) o a

- 1) A tuple is declared as `T1 = (5,15,20,35)` What will be the output of `print(sum(T1))` ?
- 2) A tuple is declared as `T1 = (5,15,20,35)` What will be the output of `print(min(T1))` ?
- 3) A tuple is declared as `T1 = (5,15,20,35)` What will be the output of `print(max(T1))` ?
- 4) A tuple is declared as `T1 = (5,15,20,35)` What will be the output of `print(sum(T1)+min(T1))` ?
- 5) A tuple is declared as `T1 = (5,15,20,35)` What will be the output of `print(max(T1)+min(T1))` ?

- 1) A list is given as `Age=[10, 20,30,40,50,60]` , What will be displayed as `Age[:2] + Age[2:]`
- 2) A list is given as `Age=[10, 20,30,40,50,60]` , What will be displayed as `Age[-2] + Age[1]`
- 3) A list is given as `Age=[10, 20,30,40,50,60]` , What will be displayed as `Age[4] + Age[-3]`
- 4) A list is given as `Age=[10, 20,30,40,50,60]` , What will be displayed as `Age[:3] + Age[3:]`
- 5) A list is given as `Age=[10, 20,30,40,50,60]` , What will be displayed as `Age[:] + Age[::-1]`

- 1) Identify the valid declaration of test: test=['Python',10, 'Good', 25.45] :
(a) Tuple (b) Dictionary (c) List (d) String
- 2) Identify the valid declaration of test: test=('Python',10, 'Good', 25.45) :
(a) Tuple (b) Dictionary (c) List (d) String
- 3) Identify the valid declaration of test: test={'Python':10, 'Good': 25.45} :
(a) Tuple (b) Dictionary (c) List (d) String
- 4) Identify the valid declaration of test: test='Python'+str(10)+ 'Good'+ str(25.45):
(a) Tuple (b) Dictionary (c) List (d) String
- 5) Identify the valid declaration of test: test=['Python',10, 'Good', 25.45,[12,22,43]] :
(a) nested Tuple (b) nested Dictionary (c) nested List (d) nested String

1. Evaluate the following expressions:
 - a) $47 // 5 + 10 ** 2 - 25 + 12$
 - b) $34 > 56$ or $90 > 60$ and not $21 > 10$
2. Evaluate the following expressions:
 - a) $9 * 5 + 3 ** 3 // 2 - 8$
 - b) $10 < 15$ and not $17 > 11$ or $10 > 2$
3. Evaluate the following expressions:
 - a) $47 \% 5 - 10 * 2 - 24 // 12$

- b) $3 > 6$ or $9 < 60$ and not $1 > 10$
4. Evaluate the following expressions:
 - a) $47 / 5 + 10 \% 2 - 25 \% 12$
 - b) $34 < 56$ or $90 < 60$ and not $21 < 10$
5. Evaluate the following expressions:
 - a) $47 // 5 + 10 // 2 - 25 // 12$
 - b) $47 \% 5 - 10 * 2 - 24 // 12$

1. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
Num=50
while Num >= 10:
    if NUM =30:
        BREAK
    Elif Num >30:
        print(Num)
    else:
        print(Num //10)
```

2. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
Num=50
While Num == "10":
    if NUM =30:
        BREAK
    elseif Num >30:
        print(Num)
    else:
        print(Num //10)
```

3. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

Def chksum():

```
x=int(input("Enter a number"))
if (X%2 == 0):
    for i in ranges(2*x):
        printf(i)
else:
    printf("#")
chkSum()
```

4. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
def chkSum():
    x=INT(input("Enter a number"))
    if (x%2 == 0):
        for i in Range(2*x):
            print( "I" )
    else:
        print( '#' )
Chksum()
```

5. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
def chksum():
    x=INT(input("Enter a number"))
    if (f%2 == 0):
        FOR i in range(2*X):
            printf(i)
    else:
        printf( '#' )
chkSUM()
```

1. What are the possible output(s) of the following code? Also specify the maximum and minimum values that can be assigned to variable PICKER.

```
import random
PICK = random.randint(0,3)
CITY= ["DELHI", "MUMBAI", "CHENNAI", "KOLKATA"]
for x in CITY:
    for y in range(1, PICK):
        print (x, end = " ")
    print()
```

- (i) DELHIDELHI (ii) DELHI
MUMBAIMUMBAI MUMBAI
CHENNAICHENNAI CHENNAI
KOLKATA KOLKATA KOLKATA
- (iii) DELHI (iv) DELHI
DELHIMUMBAI MUMBAIMUMBAI
DELHIMUMBAICHENNAI KOLKATAKOLKATAKOLKATA

2. Observe the following program and answer the questions that follow:

```
import random
X=3
N=random.randint(1,X)
for i in range(N):
    print(i,'#',i+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

3. Observe the following program and answer the questions that follow:

```
city= ["DEL", "CHN", "KOL", "BOM", "BNG"]
for l in range(1,4):
    Fly = random.randrange (0,2) + 1 ;
    print( city[Fly] ,end=":")
```

- (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?

#Output Options:

- i. DEL: CHN : KOL : ii. CHN : KOL : CHN :
iii. KOL : BOM : BNG : iv. KOL : CHN : KOL :

4. Observe the following program and answer the questions that follow:

```
Area=["NORTH","SOUTH","EAST","WEST"]
```

```
for I in range(3):
```

```
    ToGo=random.randrange(0,2) + 1
```

```
    print(Area[ToGo],end=":")
```

(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?

#Output Options:

i. SOUTH : EAST : SOUTH :ii. NORTH : SOUTH : EAST :

iii. SOUTH : EAST : WEST : iv. SOUTH : EAST : EAST :

1. Find and write the output of the following Python code:

```
def fun(s):
```

```
    k=len(s)
```

```
    m=""
```

```
for i in range(0,k):
```

```
    if(s[i].isupper()):
```

```
        m=m+s[i].lower()
```

```
    elif(s[i].isalpha()):
```

```
        m=m+s[i].upper()
```

```
    else:
```

```
        m=m+'##'
```

```
    print(m)
```

```
fun('Charles@Babbage')
```

2. Find and write the output of the following Python code:

```
s="Cbse Exam 2020-2021"
```

```
print(s)
```

```
r=""
```

```
for i in s:
```

```
    if i.isupper()== False:
```

```
        r+=i.lower()
```

```
    elif i.islower()== False:
```

```
        r+=i.upper()
```

```
    else:
```

```
        r=r+i
```

```
print(r)
```

3. Find and write the output of the following Python code:

```
s="Cbse Exam 2020-2021"  
print(s)  
r=""  
for i in s:  
    if i.isupper():  
        r+=i.lower()  
    elif i.islower():  
        r+=i.upper()  
    elif i.isdigit():  
        r+=str(int(i)+1)  
    else:  
        r=r+i  
print(r)
```

4. Find and write the output of the following Python code:

```
T= "Mind@work!"  
R=""  
l=len(T)  
print("Original : ",T)  
for i in range(l):  
    if T[i].isalpha()==False:  
        R+='*'  
    elif T[i].isupper()==True:  
        R+=chr(ord(T[i])+1)  
    else:  
        R+= T[i+1]  
print("Final : ",R)
```

Write a function in Python PUSH() to insert an element in the stack. After inserting the element display the stack.

OR

Write a function in Python POP() to remove the element from the stack and also display the deleted value.

Find and write the output of the following python code:

```
list1=['Major','Mohit','Sharma']  
list2=list1  
list3=list1[::]  
list2[0]='Salute'  
list1.extend(list2)  
print(list1[0:1]+list3[:])
```

If the following code is executed, what will be the output of the following code ?

```
Lt=[1,"Computer",2,"Science",10,"PRE",30,"BOARD"]  
print(Lt[3:])
```

What is the output of the following code:

```
def power(b,p):  
    r=b**p  
    return r  
def calcSquare(a):
```

```
    a=power(a,2)  
    return a  
n=5  
result=calcSquare(n)  
print(result)
```

Find and write the output of the following python code:

```
l=[]  
def gfg(x):  
    for i in range(x):  
        l.append(i*i)  
        print(l)  
gfg(2)  
gfg(3)
```