

CLASS XII COMPUTER SCIENCE (083) - 2023

1. State True or False. 1
"Identifiers are names used to identify a variable, function in a program".
2. Which of the following is a valid keyword in Python ? 1
(a) false (b) return
(c) non_local (d) none
3. Given the following Tuple 1
Tup= (10, 20, 30, 50)
Which of the following statements will result in an error ?
(a) print(Tup[0]) (b) Tup.insert (2,3)
(c) print(Tup[1:2]) (d) print(len(Tup))
4. Consider the given expression : 1
5<10 and 12>7 or not 7>4
Which of the following will be the correct output, if the given expression is evaluated ?
(a) True (b) False
(c) NONE (d) NULL
5. Select the correct output of the code : 1
S= "Amrit Mahotsav @ 75"
A=S.partition (" ")
print (a)
(a) ('Amrit Mahotsav', '@', '75')
(b) ['Amrit', 'Mahotsav', '@', '75']
(c) ('Amrit', 'Mahotsav @ 75')
(d) ('Amrit', '', 'Mahotsav @ 75')
7. Fill in the blank. 1
_____ function is used to arrange the elements of a list in ascending order.
(a) sort() (b) arrange()
(c) ascending() (d) asort()
8. Which of the following operators will return either True or False ? 1
(a) += (b) !=
(c) = (d) *=
9. Which of the following statement(s) would give an error after executing the following code ? 1
Stud={"Murugan":100, "Mithu":95} # Statement 1
print (Stud[95]) # Statement 2
Stud ["Murugan"]=99 # Statement 3
print(Stud.pop()) # Statement 4
print(Stud) # Statement 5
(a) Statement 2 (b) Statement 3
(c) Statement 4 (d) Statements 2 and 4

14. What will the following expression be evaluated to in Python ? 1
`print(4+3*5/3-5%2)`
 (a) 8.5 (b) 8.0
 (c) 10.2 (d) 10.0

15. Which function returns the sum of all elements of a list ? 1
 (a) `count()` (b) `sum()`
 (c) `total()` (d) `add()`

17. **Assertion (A) :** To use a function from a particular module, we need to import the module. 1

Reason (R) : import statement can be written anywhere in the program, before using a function from that module.

SECTION - B

19. Atharva is a Python programmer working on a program to find and return the maximum value from the list. The code written below has syntactical errors. Rewrite the correct code and underline the corrections made. 2

```
def max_num (L) :
    max=L(0)
    for a in L :
        if a > max
            max=a
    return max
```

21. (a) Given is a Python list declaration : 1
`Listofnames=["Aman", "Ankit", "Ashish", "Rajan", "Rajat"]`
 Write the output of :
`print (Listofnames [-1:-4:-1])`

- (b) Consider the following tuple declaration : 1
`tup1=(10,20,30,(10,20,30),40)`
 Write the output of :
`print(tup1.index(20))`

32. (a) What possible output(s) are expected to be displayed on screen at the time of execution of the following program :

```
import random
M=[5,10,15,20,25,30]
for i in range(1,3):
    first=random.randint(2,5)- 1
    sec=random.randint(3,6)- 2
    third=random.randint(1,4)
    print (M[first],M[sec],M[third], sep="#")
```

- | | |
|----------------|----------------|
| (i) 10#25#15 | (ii) 5#25#20 |
| 20#25#25 | 25#20#15 |
| (iii) 30#20#20 | (iv) 10#15#25# |
| 20#25#25 | 15#20#10# |

2

1. State True or False.

“Comments are not executed by interpreter.”

2. Which of the following is **not** a sequential datatype in Python ?

- (a) Dictionary
- (b) String
- (c) List
- (d) Tuple

3. Given the following dictionary

```
Day={1:"Monday", 2: "Tuesday", 3: "Wednesday"}
```

Which statement will return "Tuesday".

- (a) `Day.pop()`
- (b) `Day.pop(2)`
- (c) `Day.pop(1)`
- (d) `Day.pop("Tuesday")`

4. Consider the given expression :

```
7<4 or 6>3 and not 10==10 or 17>4
```

Which of the following will be the correct output if the given expression is evaluated ?

- (a) **True**
- (b) **False**
- (c) **NONE**
- (d) **NULL**



5. Select the correct output of the code :

```
S="Amrit Mahotsav @ 75"
```

```
A=S.split(" ",2)
```

```
print(A)
```

- (a) `('Amrit', 'Mahotsav', '@', '75')`
- (b) `['Amrit', 'Mahotsav', '@ 75']`
- (c) `('Amrit', 'Mahotsav', '@ 75')`
- (d) `['Amrit', 'Mahotsav', '@', '75']`

7. Fill in the blank :

_____ is not a valid built-in function for list manipulations.

- (a) `count()`
- (b) `length()`
- (c) `append()`
- (d) `extend()`

8. Which of the following is an example of identity operators of Python ?

- (a) `is`
- (b) `on`
- (c) `in`
- (d) `not in`

9. Which of the following statement(s) would give an error after executing the following code ?

```
S="Happy"           # Statement 1
print(S*2)          # Statement 2
S+="Independence"   # Statement 3
S.append("Day")      # Statement 4
print(S)            # Statement 5
```

- (a) Statement 2
- (b) Statement 3
- (c) Statement 4
- (d) Statement 3 and 4



14. What will the following expression be evaluated to in Python ?

```
print(6/3 + 4**3//8-4)
```

- (a) 6.5
- (b) 4.0
- (c) 6.0
- (d) 4

15. Which of the following functions is a valid built-in function for both list and dictionary datatype ?

- (a) `items()`
- (b) `len()`
- (c) `update()`
- (d) `values()`

19. Ravi, a Python programmer, is working on a project in which he wants to write a function to count the number of even and odd values in the list. He has written the following code but his code is having errors. Rewrite the correct code and underline the corrections made.

2

```
def EOCOUNT(L):
    even_no=odd_no=0
    for i in range(0,len(L))
        if L[i]%2=0:
            even_no+=1
        Else:
            odd_no+=1
    print(even_no, odd_no)
```



21. (a) Given is a Python string declaration : 1

```
NAME = "Learning Python is Fun"
```

Write the output of : `print(NAME[-5:-10:-1])`

- (b) Write the output of the code given below : 1

```
dict1={1: ["Rohit", 20], 2: ["Siya", 90]}
```

```
dict2={1: ["Rahul", 95], 5: ["Rajan", 80]}
```

```
dict1.update(dict2)
```

```
print(dict1.values())
```

32. (a) (i) What possible output(s) are expected to be displayed on screen at the time of execution of the following code ? 2

```
import random
S=["Pen", "Pencil", "Eraser", "Bag", "Book"]
for i in range (1,2):
    f=random.randint(i,3)
    s=random.randint(i+1,4)

    print(S[f],S[s],sep=": ")
```

Options :

(I) Pencil:Book

(II) Pencil:Book
Eraser:Bag

(III) Pen:Book
Bag:Book

(IV) Bag:Eraser



- (b) (i) Predict the output of the code given below : 2

```
text="LearningCS"
```

```
L=len(text)
```

```
ntext=""
```

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

```
    if text[i].islower():
```

```
        ntext=ntext+text[i].upper()
```

```
    elif text [i].isalnum():
```

```
        ntext=ntext+text[i-1]
```

```
    else:
```

```
        ntext=ntext+'&&'
```

```
print(ntext)
```

CLASS XII COMPUTER SCIENCE (083) - ANNUAL 2024

SECTION – A

1. State True or False : 1
While defining a function in Python, the positional parameters in the function header must always be written after the default parameters.
3. What will be the output of the following statement : 1
print (16*5/4*2/5-8)
(a) -3.33 (b) 6.0
(c) 0.0 (d) -13.33
4. What possible output from the given options is expected to be displayed when the following Python code is executed ? 1
import random
Signal = ['RED', 'YELLOW', 'GREEN']
for K in range(2, 0, -1) :
 R = random.randrange(K)
 print (Signal[R], end = '#')
(a) YELLOW # RED # (b) RED # GREEN #
(c) GREEN # RED # (d) YELLOW # GREEN #
7. Identify the invalid Python statement from the following : 1
(a) **d = dict()** (b) **e = {}**
(c) **f = []** (d) **g = dict{}**
8. Consider the statements given below and then choose the correct output from the given options : 1
myStr="MISSISSIPPI"
print(myStr[:4]+"#"+myStr[-5:])
(a) MISSI#SIPPI (b) MISS#SIPPI
(c) MISS#IPPIS (d) MISSI#IPPIS
9. Identify the statement from the following which will raise an error : 1
(a) **print("A"*3)** (b) **print(5*3)**
(c) **print("15" + 3)** (d) **print("15" + "13")**
10. Select the correct output of the following code : 1
event="G20 Presidency@2023"
L=event.split(' ')
print(L[::-2])
(a) 'G20' (b) ['Presidency@2023']
(c) ['G20'] (d) 'Presidency@2023'

12. Observe the given Python code carefully :

1

```
a=20
def convert(a):
    b=20
    a=a+b
```

```
convert(10)
```

```
print(a)
```

Select the correct output from the given options :

- | | |
|--------|-----------|
| (a) 10 | (b) 20 |
| (c) 30 | (d) Error |

18. **Assertion (A)** : The expression `"HELLO".sort()` in Python will give an error.

1

Reason (R) : `sort()` does not exist as a method/function for strings in Python.

20. The code given below accepts five numbers and displays whether they are even or odd :

2

Observe the following code carefully and rewrite it after removing all syntax and logical errors :

Underline all the corrections made.

```
def EvenOdd()
    for i in range(5):
        num=int(input("Enter a number"))
        if num/2==0:
            print("Even")
        else:
            print("Odd")
EvenOdd()
```

22. Write the output displayed on execution of the following Python code :

2

```
LS=["HIMALAYA", "NILGIRI", "ALASKA", "ALPS"]
D={}
for S in LS :
    if len(S)%4 == 0:
        D[S] = len(S)
for K in D :
    print(K,D[K], sep = "#")
```

26. Write the output on execution of the following Python code :

3

```
S="Racecar Car Radar"
L=S.split()
for W in L :
    x=W.upper()
    if x==x[::-1]:
        for I in x:
            print(I,end="*")
    else:
        for I in W:
            print(I,end="#")
print()
```

CLASS XII COMPUTER SCIENCE (083) - SUPPLEMENTARY 2024

SECTION A

10×1=10

1. State True or False :

1

“In Python, tuple is a mutable data type”.

3. What will be the output of the following statement ?

1

```
print(6+5/4**2//5+8)
```

(A) -14.0

(B) 14.0

(C) 14

(D) -14

4. Select the correct output of the code :

1

```
S = "text#next"
print(S.strip("t"))
```

(A) ext#nex

(B) ex#nex

(C) text#nex

(D) ext#next

7. Identify the valid Python identifier from the following : 1
- (A) `2user` (B) `user@2`
(C) `user_2` (D) `user 2`
8. Consider the statements given below and then choose the correct output from the given options : 1
- ```
Game="World Cup 2023"
print(Game[-6::-1])
```
- (A) `CdrW` (B) `ce o`  
(C) `puC dlroW` (D) `Error`
9. Predict the output of the following Python statements : 1
- ```
>>>import statistics as s  
>>>s.mode ([10, 20, 10, 30, 10, 20, 30])
```
- (A) `30`
(B) `20`
(C) `10`
(D) `18.57`
10. Which of the following output will never be obtained when the given code is executed ? 1
- ```
import random
Shuffle = random.randrange(10)+1
Draw = 10*random.randrange(5)
print ("Shuffle", Shuffle, end="#")
print ("Draw", Draw)
```
- (A) `Shuffle 1 # Draw 0`  
(B) `Shuffle 10 # Draw 10`  
(C) `Shuffle 10 # Draw 0`  
(D) `Shuffle 11 # Draw 50`
12. What will be the output of the given code ? 1
- ```
a=10  
def convert(b=20):  
    a=30  
    c=a+b  
    print(a,c)  
convert(30)  
print(a)
```
13. For the following Python statement : 1
- ```
N = (25)
```
- What shall be the type of N ?
- (A) `Integer`  
(B) `String`  
(C) `Tuple`  
(D) `List`

20. Observe the following code carefully and rewrite it after removing **all syntactical errors**. Underline all the corrections made. 2

```
def lfunc():
 a=input("Enter a number")
 if a>=33
 print("Promoted to next class")
 ELSE:
 print("Repeat")
```

22. Predict the output of the following code : 2

```
d={"IND": "DEL", "SRI": "COL", "CHI": "BEI"}
str1=""
for i in d:
 str1=str1+str(d[i])+"@"
 str2=str1[:-1]
print (str2)
```

23. (a) Write the Python statement for **each** of the following tasks using BUILT-IN functions/methods only : 1+1=2
- (i) To delete an element 10 from the list **lst**.
  - (ii) To replace the string "**This**" with "**That**" in the string **str1**.

**OR**

- (b) A dictionary **dict2** is copied into the dictionary **dict1** such that the common key's value gets updated. Write the Python commands to do the task and after that empty the dictionary **dict1**. 2

SECTION C

50-10

26. Predict the output of the Python code given below : 3

```
s="India Growing"
n = len(s)
m=""
for i in range (0, n) :
 if (s[i] >= 'a' and s[i] <= 'm') :
 m = m + s [i].upper()
 elif (s[i] >= 'O' and s[i] <= 'z') :
 m = m +s [i-1]
 elif (s[i].isupper()):
 m = m + s[i].lower()
 else:
 m = m + '@'
print (m)
```