

Class: XI**Computer Science (083)****Sample Paper - 2 (Theory)**

Maximum Marks: 70 Time Allowed: 3 hours General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only.

SECTION A

1. State True or False 1
“Antivirus software is type of system software”
2. Which of the following is a valid data type in Python? 1
(a) For (b) None (c) for (d)while
3. Which character is used in Python to make a single line comment? 1
(a) /
(b) //
(c) #
(d) *
4. Choose the name of the process in which someone's intellectual work is 1
stolen by someone and represented as its own.
(a) Copying
(b) Plagiarism
(c) Copy and paste

(d) Intellectual steal

5. Which statement is correct? 1

(a) List is immutable && Tuple is mutable

(b) List is mutable && Tuple is immutable

(c) Both are Mutable.

(d) Both are Immutable

6. What is the output of this expression $2 * 3 ** 3 * 4$? 1

(a) 216 (b) 864 (c) 72 (d) Error

7. What is the output of the following code: 1

```
x = 100
```

```
y = 50
```

```
print(x and y)
```

(a) True (b) 100 (c) False (d) 50

8. Operating system is an example of which type of software? 1

(a) Application software

(b) System software

(c) Utility Software

(d) None of these

9. Which of the following statement(s) would give an error after executing the following code? 1

```
str1="Hello"          # Statement 1  
  
print(str1)          # Statement 2  
  
str2=10              # Statement 3  
  
str3=str1+str2       # Statement 4  
  
S=str1*str3"         #Statement5
```

- (a) Statement 3
(b) Statement 4
(c) Statement 5
(d) Statement 4 and 5
10. What is the most widely used method for e-waste disposal? 1
- (a) Burning
(b) Recycling
(c) Landfilling
(d) Disintegration
11. Find out the type of error in the following code: 1

```
x=x+10  
  
y=x*x  
  
print(x,y)
```

- (a) Value error
(b) Name error
(c) Type error
(d) none of above
12. Find out the output of given code: 1

```
if 1 + 3 == 7:  
  
    print("Hello")
```

else:

```
print("Bye")
```

- (a) Bye
- (b) Hello
- (c) HelloBye
- (d) hello Bye

13. Fill in the blank:

1

_____ Memory can not store the data permanently.

- (a) Flash Memory
- (b) Cache
- (c) RAM
- (d) Hard Disk

14. Convert the following while loop into for loop:

1

```
x=0
```

```
while(x <4):
```

```
    print(x)
```

```
    x = x+1
```

15. Choose the correct data type for given example.

1

```
a=[5,4,9,'a','b']
```

- (a) List
- (b) Tuple
- (c) String
- (d) None of above

16. Python considers the character can be enclosed in triple quotes then choose the option true/false.

- (a) True
- (b) False
- (c) can not say
- (d) none of above

Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct

choice as

- (a) Both A and R are true and R is the correct explanation for A
- (b) Both A and R are true and R is not the correct explanation for A
- (c) A is True but R is False
- (d) A is false but R is True

17. Assertion: Recycling is the only solution for the treatment of e-waste, provided it is carried out in an environment friendly manner. 1

Reason: During the recycling process, metals like copper, iron, silicon, nickel and gold are recovered in developing countries.

18. Assertion (A): Items in dictionaries are unordered. 1

Reason (R): We may not get back the data in which order we had entered the data initially.

SECTION B

19. What will be the output of the following Python program? 2

```
i = 0
while i < 5:
    print(i)
    i += 1
    if i == 3:
        break
    else:
        print(0)
```

20. Draw the logic circuit for the following equation: 2

$$A'B' + (AB)'$$

OR

Draw the logic symbol of any two basic gates.

21. What is the result of executing the following code? 1

```
number = 5
while number <= 5:
    if number < 5:
        number = number + 1
    print(number)
```

- (a) The program will loop indefinitely
- (b) The value of number will be printed exactly 1 time
- (c) The while loop will never get executed
- (d) The value of number will be printed exactly 5 times

22. Define nested tuples and write one example to show operation of the nested list. 2

23. Write any two possible solutions for special needs students. 2

or

Define plagiarism and why it is a punishable offense?

24. Predict the output of the Python code given below: 2

```
L=[2,3,4,6,9,3,8,9)
```

```
print(L.index(4))  
print(L.count(3))  
L.append(L.count(9))  
print(L)
```

OR

Predict the output of the Python code given below:

```
T1=(1,2,3,4,5,6,7,8)  
print(T1[0])  
print(T1[-1])  
print(T1[4-1])  
print(T1[2:6:2])
```

25. Evaluate any two from the following conversions:

2

- (a) $(421.5)_{10} = (?)_8$
- (b) $(BAD)_{16} = (?)_{10}$
- (c) $(1101100)_2 = (?)_{16}$

SECTION C

26. A tuple store marks of a student in 5 subjects. Write a program to calculate the grade of the student as per following details:

Average	Grade
≥ 80	A
80-70	B

70-55	C
55-33	D
<33	E

27. Proof the Demorgan's Laws with the help of truth tables.

3

OR

Explain Universal gates with the help of truth tables.

28. ASHA making a project on "Environment cleanliness" and downloading some pages from web browser, she completed her work in three steps, so give your justification for following steps if any ethics violates or not :

3

- (a) She read a paragraph then she pasted it in her report with the same words.
- (b) She downloaded images and pasted them in her report in the form of collage.
- (c) She copied the logo of one organization related with cleanliness and pasted on front page of her report

29. Write a program that repeatedly asks the user to enter product names and prices. Store all of them in a dictionary whose keys are product names and values are prices. And also write a code to search an item from the dictionary.

3

For example:

If $D = \{ 'eraser': 10, 'pen': 25, 'pencil': 10 \}$

Enter the product you want search: 'eraser'

output: "product found with price: 10"

otherwise

“ Not found”

30. Write a program for checking whether the given string is palindrome or not. 3

For Example: Entered string :” MoM”

output: Entered string is palindrome string

OR

Write a program to find the average of the list of the numbers entered through keyboard.

for Example:

L=[2,6,7,8,9,10]

Output:

Average of the numbers is : 7

SECTION D

31. Write the output for the following statements on the given string: 5

s= “ interesting facts”

- (a) print(s.upper())
- (b) print((s.split(' ')))
- (c) print(s.find('CTS'))
- (d) print(s.index('e'))
- (e) print(s.replace('sacts', 'idea'))

OR

Write a program for checking whether the given character is uppercase ,lowercase, digit ,special symbol or white space.

32. Write the most appropriate list method to perform the following task: 5

- (a) Add 4th element in the given list
- (b) Add element in the last position of the list
- (c) Delete 2nd element from the given list
- (d) Delete the given element from the given list
- (e) Add elements more than one at the end of given list.

33. Write a program to create a dictionary with the roll number, name and marks of n students in a class and displays the name of students whose marks are greater than 70. 5

OR

Write a program to print minimum, maximum, sum of keys of numbers dictionary as given below:

```
numbers= {1:100,2:200,3:300,4:400}
```

SECTION E

34. Match the following:

4

Column A	Column B
Plagiarism	Fakers, by offering special rewards or money prize asked for personal information, such as bank account information
Hacking	Copy and paste information from the Internet into your report and then organise it
Credit card fraud	The trail that is created when a person uses the Internet.
Digital Foot Print	Breaking into computers to read private emails and other files

35. Explain any 4 built in functions which can be performed over a given 4 tuple.

OR

Explain any 4 built in functions which can be performed over a given list.