

## 12<sup>th</sup> Computer science

Time : 3.00 hrs

Marks : 70

### PART – A

Choose the best answer:

15x=15

- The functions which cause side effects to the arguments passed are called
  - impure function
  - Partial Functions
  - Dynamic Functions
  - Pure functions
- A sequence of immutable objects is called
  - Built in
  - List
  - Tuple
  - Derived data
- Which of the following security technique that regulates who cause resources in a computing environment?
  - Password
  - Authentication
  - Access control
  - Certification
- If a problem can be broken into subproblems which are reused several times, the problem possesses which property?
  - Overlapping subproblems
  - Optimal substructure
  - Memoization
  - Greedy
- Who developed Python ?
  - Ritche
  - Guido Van Rossum
  - Bill Gates
  - Sunder Pitchai
- Which statement is generally used as a placeholder?
  - continue
  - break
  - pass
  - goto
- Which of the following keyword is used to define the function testpython(): ?
  - Define
  - pass
  - def
  - while
- Which of the following is used as placeholders or replacement fields which get replaced along with format( ) function?
  - { }
  - <>
  - ++
  - ^^
- Let setA={3,6,9}, setB={1,3,9}. What will be the result of the following snippet?  
print(setA|setB)
  - {3,6,9,1,3,9}
  - {3,9}
  - {1}
  - {1 3 6,9}
- Which of the following is the private class variable?
  - \_\_num
  - ##num
  - \$\$num
  - &&num
- O(n) is an example of .....
  - best case
  - Average case
  - worst case
  - Null case
- What is the output for the following?

M=25 if 24<25 else 50

- (a) 25                      (b) 50                      (c) 24<25                      (d) 0

13. What is the output from the following statement?

```
Str1="welcome"
```

```
Print(str[::-3])
```

- (a) Come                      (b) ome                      (c) wce                      (d) wel

14. In list=[10,23,41,75] , the negative index value of 41 is.....

- (a) 2                      (b) -1                      (c) -2                      (d) -3

15. In python, constructor must begin and end with .....

- (a) - and ---                      (b) \_ \_ and \_ \_                      (c) ++ and ++                      (d) +- and -+

### PART - B

**Answer the any 6 in the following questions**

**6x2=12**

**Q.No : 22 is compulsory**

16. Differentiate interface and implementation.
17. What is a Tuple? Give an example.
18. How Python represents the private and protected Access specifiers?
19. What is searching? Write its types.
20. What is a literal? Explain the types of literals?
21. Write note on range () in loop
22. How to set the limit for recursive function? Give an example.
23. What is slicing?
24. What is instantiation?

### PART - C

**Answer the any 6 in the following questions**

**6x3=18**

**Q.No : 31 is compulsory**

25. Why strlen is called pure function?
26. Identify Which of the following are List, Tuple and class ?  
(a) arr [1, 2, 34]                      (b) arr (1, 2, 34)                      (c) student [rno name, mark]  
(d) day= ('sun', 'mon', 'tue', 'wed')                      (e) x= [2, 5, 6.5, [5, 6], 8.2]  
(f) employee [eno, ename esal eaddress]
27. Define Enclosed scope with an example.
28. Write a note on Asymptotic notation.
29. Write short notes on Escape sequences with examples.
30. List the differences between break and continue statements.
31. Differentiate ceil() and floor() function?

32. Write a Python program to display the given pattern

```
COMPUTER
COMPUTE
COMPUT
COMPU
COMP
COM
CO
C
```

33. Explain the difference between del and clear( ) in dictionary with an example.

### PART – D

**Answer the following:**

**5x5=25**

34. What are called Parameters and write a note on

(i) Parameter without Type                      (ii) Parameter with Type **(OR)**

What is a List? Why List can be called as Pairs. Explain with suitable example

35. Write any five benefits in using modular programming. **(OR)**

What is Binary search? Discuss with example.

36. Write the output for the following program:

```
a=int (input("Enter a Value for A:"))
b=int (input("Enter a Value for B:"))
print ("A = ",a," and B = ",b)
print ("The a==b = ",a==b)
print ("The a > b = ",a>b)
print ("The a < b = ",a<b)
print ("The a >= b = ",a>=b)
print ("The a <= b = ",a<=0)
print ("The a != b = ",a!=b)                      (OR)
```

Write a detail note on if..else..elif statement with suitable example.

37. Explain the scope of variables with an example **(OR)**

Explain about string operators in python with suitable example.

38. Explain the different set operations supported by python with suitable example **(OR)**

How do define constructor and destructor in Python?

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