

XII QUARTERLY EXAMINATION

COMPUTER SCIENCE KEY - Marks : 70

Part I

I Choose the correct answer:

15 X 1 = 15

| | |
|--------------------------|-----------------------|
| 1. a. subroutines | 9. b. 1 |
| 2. c. concrete data type | 10. d. : |
| 3. c. = | 11. b. . (dot) |
| 4. c. time and space | 12. d. instantiation |
| 5. b. Guido Van Rossum | 13. c. for |
| 6. c. pass | 14. d. local variable |
| 7. b. recursion | 15. a. range(1,30,1) |
| 8. c. 7 | |

Part II

II Answer any six questions Q.No 24 is compulsory :

6 X 2 = 12

16. The value 78 is being bound to the name x.
17. ADT is a type for object whose behavior is defined by a set of values of set of operations
18. The process of binding a variable name with an object is called mapping
19. The process of arranging the elements in certain order is called sorting
20. Python breaks each logical line into a sequence of elementary lexical components known as tokens
21. Syntax for if ... else


```

            if <condition>:
                statements block 1
            else:
                statements block 2
            
```
22. Types of functions
 - a. User defined function
 - b. Built – in function
 - c. Lambda function
 - d. Recursive function
23. Class :- Class is the main building block in Python. It is a template for the object.
24. SchoolSchoolSchool (or) School School School

Part III

III Answer any six questions . Q.No 33 is compulsory

6 X 3 = 18

25. strlen is a pure function because the function takes one variable as a parameter and access it to find its length. This function reads external memory but does not change it, and the values returned derives from the external memory accessed.
26. a. Constructor b. Selector c. Selector

- 27. Characteristics of modules : Any three Characteristics (3 marks)
- 28. Asymptotic Notation :- Three notations (3 marks)
- 29. String Literals is a sequence of characters surrounded by single, double or triple quotes (2)
Any relevant example (1)
- 30. Syntax for while loop :
while <condition>:
 statement block 1
[else:
 Statement block 2]
- 31. Lambda function – Anonymous function is a function that is defined without a name. (2)
Syntax or example (1)
- 32. capitalize () – used to capitalize the first character of the string (1)
swapcase() – used to change the upper case to lower case and vice versa(1)
Example (1)
- 33. Output : [1,4,9,16,25] ----- (3)

Part IV

IV Answer all the questions :-

5 X 5 = 25

- 34. a. Parameter Definition (1), With Type (2), Without Type (2) ----- (5)
 b. LEGB Rule – 4 Rules (4) Example (1) ----- (5)
- 35. a. Linear search - Definition (1) Pseudo code (2) Example (2) ----- (5)
 b. Operators in Python – 5 operators with explanation / example (5)
- 36. a. for loop - definition (1) syntax (1) range explanation (1) example (2) -----(5)
 b. Any relevant Python program to print all three digit odd numbers (5)
- 37. a. i) id() - returns the address of the object in memory (1)
 ii) chr() – returns the character for the given ASCII value(1)
 iii) round() – returns the nearest integer to its input (1)
 iv)type() – returns the type of object for the given single object (1)
 v) pow() - returns the computation of a raised to the power of b. (1)
 (or) Examples for each function (5)
 b. String Operators - 5 Operators with explanation and example (5)
- 38. a. Set Operations - 4 operations with example (4) Diagram(1)
 b. Output : [34,45,48,90] (5)

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