

12 - STD**QUARTERLY EXAMINATION - 2023
COMPUTER SCIENCE**

Reg. NO.

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MARKS : 70

TIME : 3.00 Hours

Part - A

15 X 1 = 15

Answer the all the questions:-

- Which of the following carries out the instructions defined in the interface?
(A) Operating System (B) Compiler (C) Implementation (D) Interpreter
- Which of the following functions that retrieve information from the data type?
(A) Constructors (B) Selectors (C) recursive (D) Nested
- Which function does not support definition?
A) Static B) Dynamic C) user defined D) Built-in
- Which of the following security technique that regulates who can use resources in a computing environment?
(A) Password (B) Authentication (C) Access control (D) Certification
- In dynamic programming, the technique of storing the previously calculated values is called
(A) Saving value property (B) Storing value property (C) Memoization (D) Mapping
- Which operator is also called as Conditional operator?
A) Ternary (B) Relational (C) Logical (D) Assignment
- elif can be considered to be abbreviation of
A) nested if (B) if..else (C) else if (D) if..elif
- Find the Output:
for i in range(2,11,2):
print(i,end=' ')
A) 2 4 6 8 (B) 0 2 4 6 8 (C) 2 4 6 8 10 (D) 2 4 6 8 11
- While defining a function which of the following symbol is used.
(A) ; (semicolon) (B) . (dot) (C) : (colon) (D) \$ (dollar)
- _____ functions are mainly used in combination with the functions like filter(), map() and reduce().
A) Lambda (B) Recursive (C) user defined (D) Built-in
- Defining strings within triple quotes allows creating
A) Single line Strings (B) Multiline Strings (C) Double line Strings (D) Multiple Strings
- Which of the following Python function can be used to add more than one element within an existing list?
A) append() (B) append_more() (C) extend() (D) more()
- The del, remove() and pop() functions are used to delete elements from a
A) Set (B) Tuple (C) List (D) Dictionary
- The process of creating an object is called as
A) Constructor (B) Destructor (C) Initialize (D) Instantiation
- Variables defined inside a class is called as _____ Variable and functions are called as _____
A) class, variable (B) methods, variable (C) object, class (D) class, methods

Part - B**Write any 6 questions (Compulsory Question No: 24) 6 X 2 = 12**

- Differentiate interface and implementation.
- What is abstract data type?
- How Python represents the private and protected Access specifiers?
- What is searching? Write its types.
- List the control structures in Python.
- What is function? Write the types of function.
- What is the syntax of creating dictionary in python
- What is Instantiation? Write the syntax of class Instantiation.
- What is the positive and negative subscript value of the character 'n' in string "Tamilnadu".

Part - C**Write any 6 questions (Compulsory Question No: 33)**

6 X 3 = 18

- What is the side effect of impure function. Give example.
- Why access control is required?
- Write a pseudo code for linear search algorithm.

28. Write short notes on Jump statement in python.
29. Write short notes on following built-in function.
i) id() ii) chr() iii) type()
30. What is the use of format()? Give an example
31. What are the difference between List and Dictionary?
32. Write a note about count() function in python.
33. What will be the output of the following snippet? Dict = { x : 2 * 3 for x in range (1,10) } print(Dict)

Part - D**Answer the all the questions:****5 X 5 = 25**

34. Explain the types of Scopes for variable or LEGB rule with example.

(OR)

How will you access the Multi-item. Explain with example.

35. Write the benefits in using Modular Programming.

(OR)

What is Binary Search? Discuss with example.

36. Explain briefly about Operators in Python.

(OR)

Write a Program to Calculate the Factorial of the given number using for loop.

37. Explain Function and it's types with example.

(OR)**Find the Output:**

odd = set(range (1,10,2))

prime=set()

for i in range(2,10):

for j in range (2,i):

if (i%j==0):

break

else:

prime.add(i)

print("Odd Numbers: ", odd)

print("Prime Numbers: ", prime)

print("Union: ", odd.union(prime))

print("Intersection: ", odd.intersection(prime))

print("Difference: ", odd.difference(prime))

print("Symmetric Difference: ", odd.symmetric_difference(prime))

38. What is Nested tuple? Explain with an example.

(OR)

Explain about Constructor and Destructor with suitable example.