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12TH MODEL PUBLIC EXAMINATION QUESTION PAPER – (2023-2024)

COMPUTER SCIENCE

Time allowed: 3.00 Hours]

[Maximum Marks: 70

- Instructions:**
- 1) Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.
 - 2) Use **Blue** or **Black** ink to write and underline and pencil to draw diagrams

PART – I

Note : (i) Answer **all** the questions.

[15x1=15]

(ii) Choose the most appropriate answer from the given **four** alternatives and write the option code and the corresponding answer.

1. There are _____ characteristics have in interface.
 - a) 3
 - b) 4
 - c) 5
 - d) 2
2. The data type whose representation is unknown are called
 - a) Built in datatype
 - b) Derived datatype
 - c) Concrete datatype
 - d) Abstract datatype
3. What is the output of the statement in the following program?


```

X := 10
Disp () :
a := 7
print a
Displ () :
print a

```

 - a) 710
 - b) 4
 - c) 107
 - d) 10
4. In dynamic programming, the technique of storing the previously calculated values is called?
 - a) Saving value property
 - b) Storing value property
 - c) Storing value property
 - d) Mapping
5. The Python prompt indicates that Interpreter is ready to accept instruction.
 - a) >>>
 - b) <<<
 - c) #
 - d) <<
6. Which punctuation should be used in the blank?


```

if <condition>_____
statements-block 1
else _____
statements-block 2

```

 - a) ::
 - b) ;
 - c) :
 - d) !

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Kindly Send me Your Key Answer to Our email id - Padasalai.net@gmail.Com

7. What will be the output of the following code?

```
def usr_abs (n):  
    if n>=0:  
        return n  
    else:  
        return -n  
x= -25  
print (usr_abs (x))
```

- a) 0 b) 25 c) -25 d) 1

8. What is the use of %e format character?

- a) Erase b) Escape c) Exponential d) Eliminate

9. Python allows _____ values as index

- a) Positive b) Negative c) Both (a) and (b) d) Character

10. Which of the following is an RDBMS?

- a) Dbase b) SQLite c) Mongo DB d) Foxpro

11. Which of the following method is automatically executed when an object is created?

- a) __object__() b) __del__() c) __func__() d) __init__()

12. The * is used with the _____ to include the NULL values

- a) COUNT b) GROUP BY c) ORDER BY d) DISTINCT

13. _____ is used to open a file for exclusive creation or if the file already exists, the operation fails.

- a) 'r' b) 'w' c) 'x' d) '+'

14. Identify the function call statement in the following snippet.

```
if __name__ == '__main__':  
    main(sys.argv[1:])
```

- a) main(sys.argv[1:]) b) argv
c) __name__ d) __main__

15. Identify the package manager for Python packages, or modules.

- a) Matplotlib b) python package
c) plt.show() d) PIP

PART – II

Note : Answer **any six** questions. Question No. **24** is **compulsory**.

[6x2=12]

16. List the control structures in Python.
17. Differentiate interface and implementation.
18. Define Time Complexity.
19. Define Comments in Python.
20. Difference between CSV and XLS file formats.
21. Write the command to populate record in a table. Give an example
22. Write a program to append a string to another string without using += operator.
23. List the types of Data Model.
24. Write a program to print the following pattern.

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```

PART – III

Note : Answer **any six** questions. Question No. **33** is **compulsory**.

[6x3=18]

25. What are the different ways to access the elements of a list. Give example.
26. List the Characteristics of Modules
27. Write a program to check if the year is leap year or not.
28. Differentiate ceil() and floor() function?
29. Write a program that generate a set of prime numbers and another set of even numbers. Demonstrate the result of union, intersection, difference and symmetric difference operations.
30. Write any three DDL commands.
31. What is sys.argv? What does it contain?
32. Which of the following is a normal function definition and which is recursive function definition.

i) let rec sum x y:

return x + y

ii) let disp :

print 'welcome'

iii) let rec sum num:

if (num!=0) then return num + sum (num-1)

else

return num

33. Read the following details. Based on that write a python script to display department wise records

database name :- organization.db

Table name :- Employee

Columns in the table :- Eno, EmpName, Esal, Dept

PART – IV

Note : Answer **all** the questions.

[5x5=25]

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

OR

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

35. Write the different methods to read a File in Python.

OR

Define the Complexity of an Algorithm

36. Explain in detail the types of pyplots using Matplotlib

OR

Explain the types of Data Model

37. Write a C++ program using a user defined function to function cube of a number

OR

Write a program to generate in the Fibonacci series and store it in a list. Then find the sum of all values.

38. Explain with an example interface and implementation.

OR

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

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