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Model Question Paper

Class : I PUC

Subject: Computer Science (41) **Maximum marks : 70**

Time : 03 Hrs. **No. of Questions: 44**

Instructions:

(a) The question paper has Five parts namely A,B,C,D and E.

(b) For Part-A questions, only the first written answers will be considered for evaluation.

PART – A

Answer ALL the questions, each question carries ONE mark. **20 x 1 = 20**

I Select the correct answer from the choices given.

1. The brain of the computer is
   (a) CU (b) ALU (c) CPU (d) MU

2. The correct expansion form of RAM
   (a) Random Access Memory (b) Read Access Memory
   (c) Read Accept Memory (d) Random Accept Memory

3. Base of hexadecimal number system is
   (a) 16 (b) 2 (c) 8 (d) 12

4. Spell checking feature is an example of
   (a) Artificial Intelligence Processing (b) Natural Language Processing
   (b) Flowchart Processing (d) Algorithm Language Processing

5. Process of identifying a problem, developing an algorithm and finally implementing the algorithm to develop a computer programming
   (a) Problem Analysis (b) Problem Definition (c) Problem Solving (d) debugging

6. Visual representation of algorithm is
   (a) Algorithm (b) coding (c) Flowchart (d) Testing

7. Which operator is used to comment a line in python program
   (a) // (b) + (c) # (d) *

8. The explicit conversion is also called as
   (a) Typecasting (b) Implicit conversion
   (c) Coercion (d) Type Conversion

9. Statement used to terminate the current loop
   (a) continue (b) break (c) stop (d) exit

10. Which of the following is the mathematical function in python
    (a) input() (b) print() (c) len() (d) max()

11. Concatenation of strings is called
    (a) joining strings (b) find a length of a string
    (c) reversing a string (d) traversing string

12. Creates an empty list if no argument is passed then it is
    (a) append( ) (b) list( ) (c) insert( ) (d) extend( )

13. Which of the following is not method with respect to dictionary
    (a) len( ) (b) dict( ) (c) keys( ) (d) index( )

14. Which among the following is the correct statement to retrieve elements from index 2 to 6 from a tuple
    (a) tuple1[2:7] (b) tuple1[1:6] (c) tuple1[2:6] (d) tuple1[1:6]

15. Which of the following is a social media platform?
    (a) face book (b) chrome (c) firefox (d) internet explorer

II Fill in the blanks choosing the appropriate word/words from those given in the brackets. (nested, def, square, in, mutable, unordered)

16. Mapping is _____ data type

17. A loop inside another loop is called _____ loop

18. The python function definition begins with _____

19. Elements of list are enclosed in _____ brackets.

20. The _____ operator checks if the element present in the tuple and returns true, else it returns false.

PART-B

III Answer any FOUR questions. Each question carries TWO marks: 4 x 2 =8

21. What is primary memory? Give example.
22. Mention types of execution modes to run the python coding.
23. Write the syntax and example of **if** selection statement.
24. Give the difference between local variable and global variable.
25. Mention any two operations performed on tuples.
26. Write a note on hacking?
27. Give any two legally protected IPR methods.

PART-C

IV Answer any FOUR questions. Each question carries THREE marks: 4 x 3 = 12

28. Write a note on cache memory
29. Expand the terms i) ASCII ii) ISCII iii) IC
30. Write the applications of robotics.
31. Write any three characteristics of a good algorithm.
32. Write a pseudocode to check the number is odd or even.
33. Write any three rules for naming an identifier in python programming.
34. Define repetition, membership, and slicing operations on strings.

PART-D

V Answer any FOUR questions, each question carries Five marks: 4 x 5 = 20

35. Draw the functional block diagram of computer system and briefly explain its components.
36. What is an operating system? Mention the functions of operating system.
37. What is big data? Mention the characteristics of big data.
38. Write different flowchart symbols and its functions.
39. Explain any five arithmetic operators used in python
40. What is a function? Write the advantages of functions in python programming
41. Briefly explain the following built in functions for list manipulations
    a. sorted( ) b. append( ) c. extend( ) d. insert( ) e. count( )

VI Answer any TWO questions, each question carries FIVE marks 2 x 5 = 10

42. Solve the following
    i) $10010.101_{(2)}=?_{(10)}$
    ii) $24.13_{(8)}=?_{(10)}$
    iii) $FF_{(16)}=?_{(2)}$

43. Predict the output of the following python code

    i.
    ```
    x,y=2,3
    x,y=x+2,y+3
    print(x,y)
    ```
    ii.
    ```
    a=1
    a+=3
    print(a)
    ```
    iii.
    ```
    name="python"
    print("Hello ",name)
    ```
    iv.
    ```
    a=2
    print(a>=20)
    ```
    v.
    ```
    x,y=8,6
    x,y=y,x
    print("x=",x,"y=",y)
    ```

44. Write a python program to generate the pattern

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

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