COMPUTER SCIENCE WITH PYTHON NEW (083) BLUE PRINT

Type of Questions	Marks Per Question	Total Number of Questions	Total Marks
VSA: Very Short Answer Type	1	18	18
SA : Short Answer Type 1	2	14	28
SA : Short Answer Type 2	3	04	12
LA : Long Answer Type	4	03	12
Total		**39**	**70**

BLUE PRINT (Topic Wise)

Topic / Unit	VSA (1 mark)	SAI (2 marks)	SA II (3 marks)	LA (4 marks)	Total
Programming and Computational Thinking	8(8)	6(12)	2(6)	1(4)	17(30)
Computer Networks	4(4)	2(4)	1(3)	1(4)	8(15)
Data Management	4(4)	2(4)	1(3)	1(4)	8(15)
Society, Law and Ethics	2(2)	4(8)	-	-	6(10)
Total	**18(18)**	**14(28)**	**04(12)**	3(12)	**39(70)**

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2nd PRE-BOARD EXAM-2019-20
SUBJECT: COMPUTER SCIENCE NEW (083) CLASS-XII

Time:3 hrs.   M.M:70

General Instructions:

All questions are compulsory.
Question paper is divided into 4 sections A, B, C and D.
Section A : Unit-1
Section B : Unit-2
Section C: Unit-3
Section D: Unit-4

SECTION:A

Q1. a) Which is the following is valid logical operator?   1
    (i) and   (ii) >   (iii) ==   (iv) //
  b) Write the type of tokens from the following: 1
    (i)break (ii) sum_no
  c) Name the Python Library modules which need to be imported to invoke the following
    functions: (i) cos() (ii) random ()   1
  d) Observe the following Python code very carefully and rewrite it after removing all
    syntactical errors with each correction underlined.   2

```
def checkval:
x = input("Enter a number")
if x % 2 = 0:
print x,"is even"
else if x<0:
print x,"should be positive"
else;
print x,"is odd"
```

  e) Find the output of the following:
    def main ( ) :   2
```
        Moves=[5, 10, 15, 20]
        Queen=Moves
        Moves[2]+=10
        L=Len(Moves)
        for i in range (L)
                print "Now@", Queen[L-i-1], "#", Moves [i]
```
  f) Find and write the output of the following python code: 3

```
def Change(P , Q=30):

    P=P+Q

    Q=P-Q

    print( P,"#",Q)
```

```
            return (P)

        R, S =150, 100

        R=Change(R,S)

        print(R,"#",S)
        S=Change(S)
```

g) Study the following program and select the possible output(s) from the options (i) to (iv) following it. Also, write the maximum and the minimum values that can be assigned to the variable Y.   **2**

```
import random
X= random.random()
Y= random.randint(0,3)
print(int(X),":",Y+int(X))
```
   (i) 0:0   (ii) 1:6   (iii) 2:4   (iv) 0:3

Q2. a) What do you mean by term decision making?   **1**

  b) Which is the correct form of declaration of dictionary?   **1**

  (i)   Day={ 1:'monday', 2:'tuesday', 3:'wednesday'}
  (ii)   Day=(1; 'monday', 2;'tuesday', 3;'wednesday')
  (iii)   Day=[1: 'monday', 2:'tuesday', 3:'wednesday']
  (iv)   Day={1 'monday', 2 'tuesday', 3 'wednesday']

  c) Identify the valid declaration of L: **1**
    L = [1, 23, 'hi', 6].
    (i) list   (ii) dictionary (iii) array   (iv) tuple

  d) Find and write the output of the following python code: **1**
```
            x = "pqrst"
            i = "p"
            while i in x:
                    print(i, end = " ")
```

  e) Which keyword is used for iteration statement?   **1**

  f) What are the rules for local and global variables in python? Give a suitable example of each. **2**

  g) Observe the following code and answer the questions that follow: **2**
```
        File = open("Mydata","a")
        # Blank1
        File.close()
```
    i) What type (Text/Binary) of file is Mydata?
    ii) Fill in Blank 1 with a statement to write "ABC" in the file "Mydata".
                    OR
    A bar chart is drawn(using pyplot) to represent sales data of various models of
    cars, for a month. Write appropriate statements in Python to provide labels
    Month - June and Sale done to x and y axis respectively.

h) A text file contains alphanumeric txt (say an.txt). Write a program that reads text file and prints only the numbers or digits from the file.   **2**

OR

Write a method/function DISPLAYWORDS() in python to read lines from a text file STORY.TXT, and display those words, which are less than 4 characters.

i) Write recursive code to compute and print sum of squares of n numbers. The value of n is passed as parameter.   3

OR

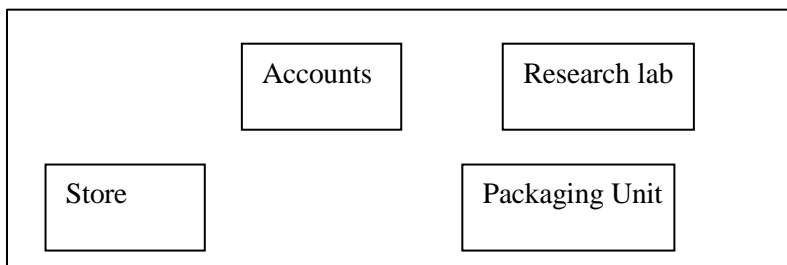Write a Recursive function recurFACTORIAL(N) in python to calculate and return the factorial of number, where N is passed as parameter.

j) Give the necessary declaration of a list implemented stack containing numeric type data also. Write user defined function to pop a number from stack.   4

OR

(j) (i) Evaluate the postfix notation (Show status of stack after execution of each operation
        4, 10, 5, +, *, 15, 3, /, -

(j) (ii)   Convert to postfix notation
        (A + B**D) / (E – F) + G

SECTION:-B

Q3.a) ....cloud services use by home user or small business owner.   1

   b) ....displays the IP address, subnet mask, and default gateway for all adapters.   1

   c) 10:B5:03:63:2E:FC is example of ....address.   1

   d) ....will translate domain names into IP addresses.   1

   e) Give the full forms of the following: (i) VoIP   (ii) SMTP   (iii) IMAP   (iv) HTTP   2

   f) Write any two advantage and one disadvantage of fiber optics cable.   2

   g) Identify the type of cyber crime for the following situations: 3

      i) A person complains that Rs. 4.25 lacs have been fraudulently stolen from his/her account online via some online transactions in two days using NET BANKING.

      ii) A person complaints that his/her debit/credit card is safe with him still some body has done shopping/ATM transaction on this card.

      iii) A person complaints that somebody has created a fake profile on Facebook and defaming his/her character with abusive comments and pictures.

   h) Amzon Centre has set up its new Centre in Dubai. It has four buildings as shown in the diagram given below: 4

Distances between various buildings are as follows:

Accounts to Research Lab	55 m
Accounts to Store	150 m
Store to Packaging Unit	160 m

Packaging Unit to Research Lab	60 m
Accounts to Packaging Unit	125 m
Store to Research Lab	180 m

Number of computers:

Accounts	25
Research Lab	100
Store	15
Packaging Unit	60

As a network expert, provide the best possible answer for the following queries:

i) Suggest the type of network established between the buildings.
ii) Suggest the most suitable place (i.e., building) to house the server of this organization.
iii) Suggest the placement of the following devices with justification: (a) Repeater (b) Hub/Switch
iv) Suggest a system (hardware/software) to prevent unauthorized access to or from the network.

SECTION:C

Q4.a) Which key word is used to sort the records of a table in descending order?   1
  b) Which method is used to retrieve single row?   1
  c) Which command is used to modify the physical structure of table?   1
  d) Which operator is used to match the pattern of string and characters?   1
  e) Differentiate between Degree and Cardinality giving example.   2

  f) Write a MySQL-Python connectivity to retrieve data, one record at a time, from city table for employees with id less than 10.   2
  g) Table COACHING is shown below. Write commands in SQL for (i) to (iv) and show the output for (v) to (vii).   4+3

ID	NAME	AGE	CITY	FEE	PHONE
P1	SAMEER	34	DELHI	45000	9811076656
P2	ARYAN	35	MUMBAI	54000	9911343989
P4	RAM	34	CHENNAI	42000	9810593578
P6	PREMLATA	36	DELHI	60000	9910139987
P7	SHIKHA	36	INDORE	34000	9912139456
P8	RADHA	33	DELHI	23000	8110668888

i) To display name in descending order whose age is more than 23.
ii) To find the average fee grouped by age from coaching table.
iii) To find all details from coaching table where fee is between 30000 and 40000.
iv) To display ID and Name and city from coaching relation who's name starts with 'S'
v) select age, count(city) from coaching group by age;
vi) select city, sum(fee) from coaching where age in (34,36) group by city;
vii) Select name, city from coaching where name like "_ R%";

SECTION:D

Q5.a) What are the proper methods and steps for the disposal of used electronic items? 1

(b)What are Intellectual Property Rights (IPR)? 1

(c)How can we recycle e-waste safely? 2

(d)What is meant by the term Plagiarism? 2

(e)Write any two categories of cyber crime. 2

(f)How does phishing different from eavesdropping? 2