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FIRST PRE-BOARD EXAMINATION-2019-20

SUBJECT : COMPUTER SCIENCE

CLASS : XII

Time : 3 Hours

MM:70

General Instructions:

- (i) All questions are compulsory,
 (ii) Question paper is divided into 4 sections A, B, C & D.

SECTION A-UNIT 1 ,B-UNIT 2,C-UNIT 3, D-UNIT 4

- (iii) Give examples where required.

1. a. What do you mean by Keyword? Give example. 1
 b. Which of following is not an assignment operator:
 i) **= ii) /= iii) == iv) %= 1
 c. Write the modules that need to be imported to execute the following functions in Python:
 i) sqrt() ii) write() 1
 d. Rewrite the following Python code after removing the syntactical errors if any: 2

```
DEF __main():
x = input("Enter a number:")
if (abs(x)== x)
print("You entered a positive number")
else:
x*=-1
```

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[P.T.O.]

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2

```
print("Number made positive:",x)
main()
e. Find the output of the following program:
```

```
Tup = (10,30,15,9)
```

```
S = 1
```

```
T = 0
```

```
for i in range(S,4):
```

```
T = T + Tup[i]
```

```
print(i, ":", T)
```

```
T = T + Tup[0]*10
```

```
print(T)
```

2

```
f. Find the output of the following code:
```

```
def ModList( ):
```

```
L=[]
```

```
L1=[]
```

```
L2=[]
```

```
for i in range (1,10):
```

```
L.append(i)
```

```
for i in range( 10,1,-2):
```

```
L1.append (i)
```

```
for i in range (len(L1)):
```

```
L2.append(L1[i]+L[i])
```

```
L2.append(len(L)-i+1)
```

```
print (L2)
```

```
ModList()
```

3

3

- g. Go through the Python code shown below, and find out the possible output or outputs from the suggested Output Options (i) to (iv).

```
import random
i= random.random()
j= random.randint(0,4)
print(int(i),":",j+int(i))
```

(i) 0 : 0 (ii) 1 : 6 (iii) 0 : 4 (iv) 1 : 4 . 2

- Q2. a. Differentiate between Mutable and Immutable datatype. 1
- b. Name the error which will be displayed while executing the following code:

```
L=[1,2,3,4,5]
```

```
Print(L[5]) 1
```

- c. Give any two examples of list. 1
- d. Given the following Dictionary, identify Key value pair of main dictionary D:

```
D={'KVS':{'Branches':1227,'HQ':'Delhi'}} 1
```

- e. In the given user defined function is there any error, if it is correct it:

```
def DEFA_ARG(n1=1,n2=2,n3):
```

```
    n1=n1+n2
```

```
    n2+=n3
```

```
    print(n1,n2,n3)
```

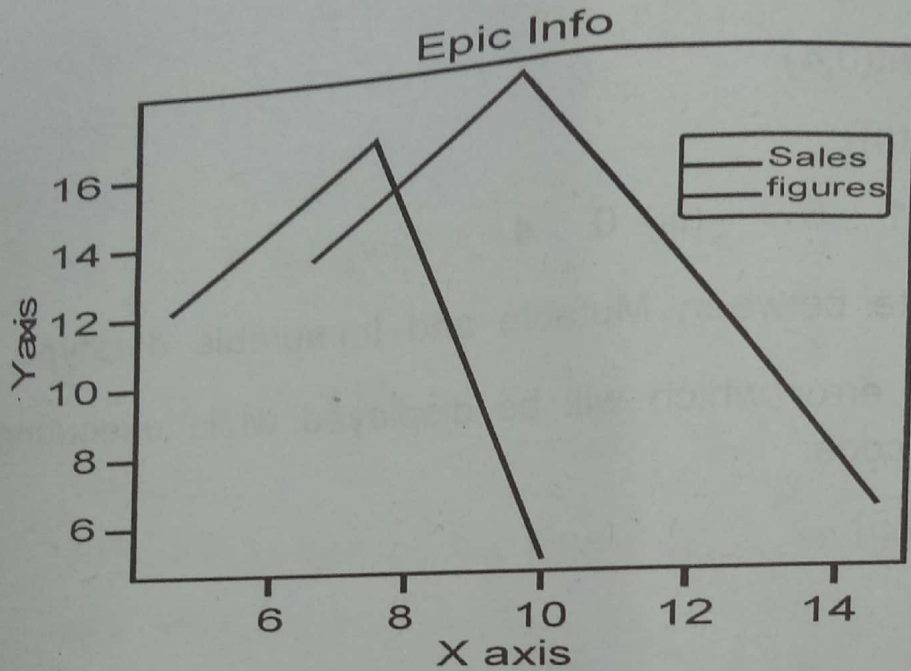
```
    Check()
```

```
    Check(2,1)
```

```
    Check(3,4,5) 1
```

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- f. What is the difference between arguments and parameter? 2
Give appropriate example.
- g. Write a Python program to draw a line using given axis values with suitable label in the x axis , y axis and a title. 2



OR

In the code given below give the statement which needs to be specified in the blank line.

```
import matplotlib.pyplot as plt
# Data to plot
labels = 'Python', 'C++', 'Ruby', 'Java'
sizes = [215, 130, 245, 210]
colors = ['gold', 'yellowgreen', 'lightcoral', 'lightskyblue']
explode = (0.1, 0, 0, 0) # explode 1st slice
# Plot the pie chart

plt.axis('equal') #statement to plot pie chart
```


plt.show()

2

- h. Create a user-defined function LinesWith() in Python that displays the number of word, which is to be entered by the user.

E.g. if the file Woods.txt contains and user enters word as 'woods' then answer should be like:

Whose woods these are I think I know.

His house is in the village though;

He will not see me stopping here

To watch his woods fill up with snow.

Then answer should be

Count of your word in file -> 2

OR

Write a method/function countlines() in python to read lines from a text file read.txt ,and display those lines ,which ~~are~~ starts with "T". 2

- i. Write recursive function cube(n),to compute and print sum of cube of n numbers. Value of n is passed as parameter.

OR

Write a recursive function to generate first 10 Fibonacci series elements and print them. 3

- j. Write a method Insert and delete using Queue implementation for students (Name).

OR

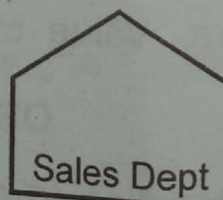
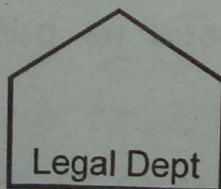
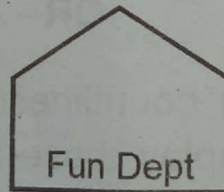
Write a method Insert, delete using Stack implementation for Customers(CName) 4

SECTION - B

3. a. Differentiate between LAN and PAN. 1

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- b. What are IPR? 1
- c. How IP address differ from MAC address? 1
- d. Apple's iCloud drive is an example which type of cloud. 1
- e. Expand the following terms:
1. PPP 2. DNS 3. VoIP 4. FTP 2
- f. Write difference between IPv4 and IPv6 Addresses 2
- g. Write the purpose of following commands
1. ping 2. ipconfig 3. whois 3
- h. Sunrise Pvt. Ltd. is setting up the network in Ahmedabad. There are four departments-mrktdept, FunDept, LegalDept, SalesDept. 4



Distance between various buildings is as under:

MrktDept to	FunDept	80 m
MrktDept to	LegalDept	180 m
MrktDept to	SalesDept	100 m
LegalDept to	SalesDept	150 m
FunDept to	FunDept	100 m
FunDept to	SalesDept	50 m

Number of computers in the buildings :

MrkDept	20
LegalDept	10
FunDept	08
SalesDept	42

- (i) Suggest the network type between the Departments and specify topology.
- (ii) Suggest the most suitable building to place the server with a suitable reason.
- (iii) Suggest the placement of (i) modem, (ii) Hub/Switch in the network.
- (iv) The organization is planning to link its sale counters situated in various parts of the same city. Which type of network out of LAN, WAN, MAN will be formed? Justify.

SECTION – C

- Q4 a. What is the purpose of fetchall() in a cursor? 1
- b. A table 'CCA' has 5 attributes and 7 tuples . 2 more rows are added and 1 column is dropped. What will be its degree and cardinality? 1
- c. `import pymysql`
`con=pymysql.connect_____`
`c=_____` 2
- Write the complete statement for *con* and *c* where username is 'Scott' and Password is 'Tiger' 2
- d. What is the difference between ALTER and UPDATE command in SQL 2
- e. What is MVT architecture in Django? 2
- f. In a Fashion Store's database, there is a table 'Customer' as given below.

TABLE : CUSTOMER

Acc_No	Cust_Name	Cust_City	Cust_Phone	Open_Bal
1001	Dharmesh	Ambala	9710557614	10000
1002	Saniya	Patna	8223545233	15000
1003	Joe	New Delhi	9972136576	13000
1004	Mrinal	New Delhi	9321305453	10000

With reference to the above given table, give the output of queries given below:

- i. Select Acc_No, Cust_name from Customer where Cust_City ='Patna';
- ii. Select sum(Open_Bal) from Customer where Acc_no between 1002 and 1004.
- iii. Select * from Customer order by Cust_Phone. 3
- g. With reference to the above table 'customer' give the queries for
 - i. Write a query to display customer's name and city.
 - ii. Write a query to display customer's name along with their opening balance which should be between 10000 to 13000.
 - iii. Write a query to display all data where name begins with 'D'.
 - iv. Display all the data in descending order of city 4

SECTION - D

- Q5
- a. What do you mean by Plagiarism? 1
 - b. Explain e-waste disposal process. 1
 - c. Name two threats to computer security. 2
 - d. What is meant by the term Cyber Forensics? 2
 - e. What is an Open Source Software? Give any two examples. 2
 - f. What do you mean by Phishing? 2