HALF YEARLY EXAMINATION -2020
XII –COMPUTER SCIENCE

MARKS : 70	EXAM NO :
DURATION : 3.00 Hrs.	DATE :

I.VERY SHORT ANSWER: -   15x1=15

1. What type of objects can be used as keys in dictionaries?
2. Identify and write the name of the module to which the following functions belongs: i) randrange()   ii) match()
3. How many times is the word 'hello' printed in the following statement?

   S='python rocks'

   for ch in s[3:8]:

        print('hello')
4. Rewrite the following python code after removing all syntax error(s). Underline the corrections done.

   def main():

        r=input('Enter the radius:')

        a=pi*math.pow(r,2)

        print("AREA="+a)
5. Write the difference between GET and POST method.
6. Which method is used to retrieve all rows and single row?
7. What do you mean by MVC?
8. Predict the output:

   for i in range(1,10,3):

        print(i)
9. Which function is used to read one record from the database?
10. A system designed to prevent unauthorized access is termed as a _____.
11. What is MAC address?
12. What is the role of Django in website design?
13. What is the significance of GROUP BY clause in an SQL query?
14. In Django, whenever a web client has to access a web page, it makes a _____ request and sends URL of the web page.
15. What do you mean by cyber security?

II. SHORT ANSWER: -   17x2=34

16. What security measure should be taken against phishing attacks?

17. What are the different ways in which authentication of a person can be performed?

18. How can we recycle e-waste safely?

19. What are the different types of cybercrimes?

20. Write a python program to count and display the vowels of a given text.

21. What do you understand by the following?

    i)ord()   ii) chr()

22. What is the significance of having functions in a program?

23. How are the following two statements different from one another?

    i)import math   ii) from math import *

24. Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code.

    STRING =""HAPPY BIRTH DAY"

    for s in range[0,8]:

    print STRING(s)

    print S+STRING

25. Write a user-defined function in python that displays the number of lines starting with 'M' in the file hello.txt.

26. List one similarity and one difference between list and dictionary data type.

27. Write the specific purpose of functions used in plotting:

    i. plot()

    ii. Legend()

28. What do you mean by group/aggregate functions? Give any four examples of these functions.

29. What is the difference between bit rate and baud rate?

30. What output will be generated when the following python code is executed?

    def changelist():

        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)):

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            L2.append(L1[i]+L[i])
        L2.append(len(L)-len(L1))
        print(L2)
    changelist()
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31. Expand the following:
    i. URL

    ii. CSMA

    iii. SCP

    iv. SMTP

32. Differentiate between commit() and rollback() statements.

III. LONG ANSWER:-   3x3=09
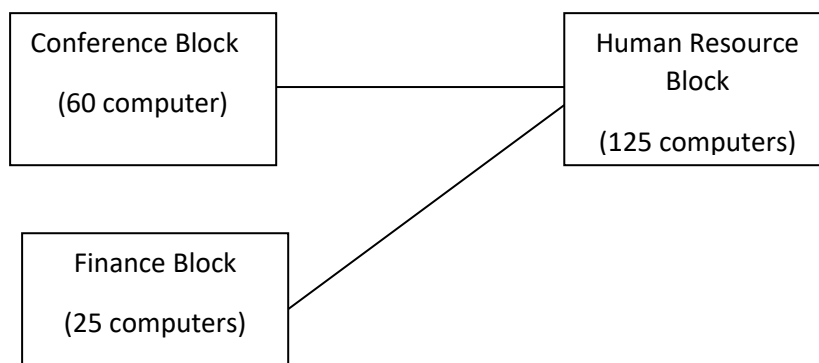
33. Write a program which inputs two lists 'FirstName' and 'LastName' and returns answer in list 'name' with 'FirstName' and 'LastName' concatenated.

34. Write a program in python to search a number from the entered sorted list using binary search.

35. Write a recursive function that computes the sum of number 1......n; get the value of last number n from the user.

IV. VERY LONG ANSWER:-   3x4=12

36. Enlist some applications of queue.

37. TUC is a professional consultancy company. The company is planning to set up their new offices in India with its hub. As a network adviser, you have to understand their requirements and suggest to them the best available solutions.

   i) What will be the most appropriate block where TUC should plan to install their server?

   ii) Which of the following devices will you suggest to connect each computer in each of the above blocks?

      a. Gateway   b. Switch   c. Modem

iii) Write name of any two popular open source software which are used as operating systems.

iv) Write any two important characteristics of cloud computing.

38. Consider the following tables GAMES and PLAYER. Write SQL commands and output for the following statements.

TABLE :GAMES

GCODE	GAMENAME	NUMBER	PRIZEMONEY	SCHEDULEDDATE
100	Kabaddi	2	5000	10-Dec-2008
101	Chess	2	12000	12-Jan-2017
102	Badminton	4	7500	19-Mar-2013
103	Table Tennis	2	8500	11-Feb-2014
104	Table Tennis	4	20000	19-Jan-2015

TABLE: PLAYER

PCODE	NAME	GCODE
1	RAVI	100
2	PRABHU	103
3	MATHI	104
4	RAGUL	102

i.   To display the name of all games with their Gcodes.

ii. To display details of those games which have prize money more than 7000.

iii. To display the content of the GAMES table in ascending order of scheduled date

iv. To display the maximum prize money from GAMES table.

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