Annual Examination [2020 – 21]				
Student Name		**Grade**		XI
Date	23/02/2021	**Subject**		**Computer Science**
Set- A	**Time**	**3Hr**	**Total Marks**	70

S.NO.	Question	Marks
1	**Name the storage device..** (a) Optical media which use one spiral track; red lasers are used to read and write data on the media surface; makes use of dual-layering technology to increase storage capacity. (b) Non-volatile memory chip:contents of the chip cannot be altered;it is often used to store the start-up routine in a computer(e.g., the BIOS)	1
2	Expand the following term: (a) ALU (b) GUI	1
3	State Demorgan's Law using Truth Table.	1
4	Perform the following conversions: $(FACE)_{16} \rightarrow (?)_2 \rightarrow (?)_8$	1
5	Fill in the blanks in binary storage: i) 10 MB =_____KB ii) 1TB =_____MB	1
6	Differentiate between RAM and ROM.	1

7	Which one of the options (i) to (iv) shows the correct values of the following expressions?
	
	    1) (2**3)**2
	    2) 2**3**2
	
	     i. 512, 64
	     ii. 64, 64
	     iii. 512, 512
	     iv. 64, 512
		1

8	Consider *list1=[15,25,35,40]* Write the statement to perform the following : (i) Display maximum value from the given list. (ii) To remove the 2nd and 3rd element from the given list.	1

9	Compare the tuples and write the output
	(i) >>>tup1=(21,22,23)
	    >>>tup2=(21.0,22.0,23.0)
	    >>>tup1==tup2
	(ii) >>>tup1=('DELHI','MUMBAI',CHENNAI')
		1

```
>>>tup2=('Lucknow',Haridwar','Dehradun')
>>>tup1>tup2
```

10	How will you convert a string to an integer in python?	1
11	What is None literal in python?	1
12	Construct logical expression to represent the following condition: Weight is greater than or equal to 115 but less than 125	1
13	From the following, find out the valid identifier: break, 1rak,a2bc5,_punc	1
14	What is use of indexes in database?	1
15	How can you eliminate duplicate records in table with SELECT query.	1
16	If R1 is a relation with 4 rows and R2 is a relation with 3 rows, how many rows will the Cartesian product of R1 and R2 have?	1
17	In SQL _____ command is used to add rows to the table.	1
18	A Row is also referred to as _____ in Relational Databases.	1
19	What do you mean by cardinality of a relation?	1
20	Compare Http & Https.	1
21	What is identity theft ?	1
22	Name 2 data security concepts.	1
23	What is the need for secure passwords?	1
24	Give any two practices to ensure confidentiality of information.	1
25	What is cyber forensics?	1
26	What is a utility software? Give two examples of utility software.	2
27	Identify the type of software: (i) The software acts as an interface between a user and the hardware. (ii) It converts the program written HLL into machine language by converting & executing it line by line.	2

28 Write the output of the following code. How many times will the following loop iterate?   2

for j in "absolute":
  if j>='t':
        break
  print(j, end=' ')

29 Rewrite the following code using while loop .   2

a=int(input("Enter base"))
b=int(input("Enter power"))
s=1
for i in range(b):

```
        s*= a
print(s)
```

30   write the output of the following :   2
```
L=[ ]
L1 = [ ]
L2 = [ ]
for i in range (16,10):
    L.append(i)
for i in range (20,4,-2):
    L1.append(i)
for i in range len(L1)):
    L2.append(L[i]+L1[i])
L2.append(len(L)-len[L1])
print(L2)
```

31   Rewrite the correct program and underline the errors :   2
```
d1=dict[ ]
i = 1
n = input("Enter number of records :")
while i <=n :
    a= input("Enter name of the student:")
    b= input("Enter phone number of the  Employee :")
    d1(a)=b
    i = i +1
l =d1.key[ ]
for i in l :
     print(i, '\t','dl[i]')
```

32   What is dynamic typing in python? Explain with an example.   2

33   What is the output produced by the following code?   2
```
x=1
if x>3:
  if x>4:
    print('A',end='#')
  else:
    print('B',end='$' )
elif x<2:
  if (x!=0):
    print('C', end='@'  )
print('D')
```

34   Write Python expressions to represent the following situations: 2
      a) Find the square root of the sum of 8 and 43
      b) Find the integral part of the quotient when 100 is divided by 32

35   What is Private Browsing and Anonymous Browsing?   2

36   Differentiate between Trojan and Worm.   2

37   Write a program in Python that accepts a string as input and removes all the vowels from   3
     that string.Also the program should print the changed string.

38   Write the program in Python to shift the negative numbers to left and the positive numbers to right so that the resultant list will be as follows :
Original list [-2,1,-3,-15,16,-17,5,-3,-6]
Output should be [1,16,5,-6,-3,-17,-15,-3,-2]   3

39   Write a python program to input names of 'n' employees and their basic . Calculate house rent (30% of basic salary) , conveyance allowance(1% of basic salary), PF(9% of basic salary) and (gross salary = basic salary + house rent + conveyance allowance - PF). Also display all the details.   4

40   Predict the output of the given code:
dic_str = {'S': "Science" , 'N' : "Non-Medical" , 'C' : "Commerce" , 'A' : "Arts"}
len(dic_str)
dic_str.keys( )
print(dic_str.get('V'))
dic_str['V'] = "Vocational"
print(dic_str)
del dic_str['N']
print(dic_str.values( ))   4

41   Write SQL queries which are based on the following tables   4

Table : ACCOUNT

ANO	ANAME	ADDRESS
101	Nirja Singh	Banglore
102	Rohan Gupta	Chennai
103	Ali Reza	Hyderabad
104	Rishabh Jain	Chennai
105	Simran Kaur	Chandigarh

Table : TRANSACT

TRNO	ANO	AMOUNT	TYPE	DOT
TOO1	101	2500	Withdraw	2017-12-21
TOO2	103	3000	Deposit	2017-06-01
TOO3	102	2000	Withdraw	2017-05-12
TOO4	103	1000	Deposit	2017-10-22
TOO5	101	12000	Deposit	2017-11-06

(i) To display details of all transactions of TYPE Deposit from Table TRANSACT.

(ii) Tof display the ANO and AMOUNT of all Deposits and Withdrawals done in the month of October 2017 from table TRANSACT

(iii) To display the last date of transaction (DOT) from table TRANSACT for the Accounts having   ANO as 103

(iv) To all ANO, ANAME and DOT of those persons from tables ACCOUNT and TRANSACT who have done transactions less than or equal to 3000

42 Consider the table FINANCE with the following data types and data :   5 =
                                                                                                          2+1+1+
Structure of the table : FINANCE   1

Fiele Name	Data Type	Description
Accno	NUMBER(4)	Account Number
BName	VARCHAR(15)	Bank Name
CName	VARCHAR(25)	Customer Name
LAmount	NUMBER(8,2)	Loan Amount
Installments	NUMBER(3)	Total no. of Installments
IRate	NUMBER(5,2)	Interest Rate
ISDate	DATE	Interest Starting Date

Data in the table FINANCE

Accno	BName	CName	LAmount	Installments	IRate	ISDate
1	SBI	Vikas Rai	750000	142	12.00	2011-07-19
2	ICICI	Milkha	158000	252	10.00	2010-03-22
3	PNB	Binod	530000	140	NULL	2012-03-08
4	HDFC	J. N. Mittal	150000	190	12.50	2011-01-03

Write SQL query/commands for the following questions:

   a. Create the table FINANCE
   b. Display the structure of the table FINANCE
   c. Insert a record/tuple in it
   d. Update interest rate to 10.50 of PNB Bank