Class –XII
Sub –Computer.Sci (083)

MARKS: 70 **TIME: 3 HRS**

General Instruction:

1. **The question paper is divided into 5Sections – A To E**
2. **Section A, consists of 18 Questions carrying 01 mark each**
3. **Section B, consists of 07 Very short Type Questions carrying 2 marks each.**
4. **Section C, consists of 05 Short Answer type Questions carrying 03 marks each.**
5. **Section D, consists of 03 Long Answer type Questions carrying 05 marks.**
6. **Section E, consists of 02 Questions carrying 5 marks each. One internal choice is given in Q35 against Part C only.**
7. **All programming questions are to be answered using Python Language only.**
8. **There will be no negative marking for the wrong answers.**

	Section-A **Each Question carries One mark**	
1	Data structure stack is also known as a. First in First Out b). First in Last Out c). Last in First Out d). All	1
2	When a stack size is full and no new element can be inserted, it is called a) Overflow b). Underflow c). Extraflow d). NoFlow	1
3	Evaluate the following arithmetic expression A which is in postfix notation inserted in a stack .What will the output after execution of stack . A=(30 , 5 , 2 , **, 12 , 6 , / , + , --) a) 3 b) 27 c). 57 d) 60	1
4	Consider a declaration L = (1, 'Python', '3.14'). Which of the following represents the data type of L? a. list b. tuple c. dictionary d. string	1
4	What will be the output of the following Python code? print('abcdefcdgh'.partition('cd')) a) (‘ab’, ‘cd’, ‘ef’, ‘cd’, ‘gh’) b) (‘ab’, ‘cd’, ‘efcdgh’) c) (‘abcdef’, ‘cd’, ‘gh’) d) error	1
5	What is the output of the following? print("xyyzxyzxzxyy".count('yy', 2)) a)2 b) 0 c)1 d)error	1
6	What is the output of the expression : 3*1**3 a)27 b)9 c)3 d)1	1
7	Suppose list1 is [3, 4, 5, 20, 1, 5, 25, 1, 3, 1], what is list1 after list1.pop (1)? a)[3,4,5,20,5,25,1,3,1] b)[3,4,5,20,1,5,25,1,3] c)[3,5,20,1,5,25,1,3,1] d)[3,4,5,20,1,5,25,3,1]	1

8	What will be the output of the following code? Fruits = ('Banana', 'Grapes', 'Mango', 'WaterMelon') print(max(fruits)) print(min(fruits)) a.WaterMelon, Mango b.WaterMelon, Banana c. WaterMelon, Grapes d.Banana, WaterMelon	1
9	Which of the following operator cannot be used with string data type? + b. in c. * d. /	1

10	What will be the output after the following statements?
	x = 25
	if x >= 10 and x <= 15:
	print('true')
	elif x >= 15 and x <= 25:
	print('not true')
	elif x >= 25 and x <= 35:
	print('false')
	else:
	print('not false')
	True b. false c. not true d. not false
		1

11	What will be the output after the following statements? b = 1 for a in range(1, 10, 3): b += a + 1 print(b) a. 14b. 16 c. 20 d. 25	1
12	Which of the following is the output of the following python code? str1="TamilNadu" print(str1[::-1]) (a) Tamilnadu (b) Tmlau (c) udanlimaT d) udaNlimaT	1
13	If List=[10,20,30,40,50] then List[2]=35 will result (a) [35,10,20,30,40,50] (b) [10,20,30,40,50,35] (c) [10,20,35,40,50] (d) [10,35,30,40,50]	1
14	What will be the output after the execution of the following statements? capital = {'India': 'Delhi', 'SriLanka': 'Colombo'} capital = list(captial.values) a. [Delhi] b. ['Delhi', 'Colombo'] c.['Colombo'] d. Error	1

15	Which of the following statement(s) would give an error after executing the following code?
	str1=”Welcome to class XII” # Statement 1
	print(str1) # Statement 2
	str1=”Thank you” # Statement 3
	str1[0]=’@’ # Statement 4
	str1=str1+”Thank you” # Statement 5
	a) Statement 1 b). Statement 2 c). Statement 3 d). Statement 4
		1

16	----------is anon-key attributes, whose value are derived from the primary key of some other table a). Primary b). Foreign Key c). Candidate key d). Alternate key	1

17	Which of the following mode in the file opening statement result generate an error if the file does not exist a). a+ b). r+ c). w+ d). None	1
18	Which of the following command will delete the table from mysql database a). Delete table b). Drop table c). Remove table d). Alter table	1

Section-B

19	Which of the following command will delete the table from mysql database What is the output produced by the following code obj=open("new.txt","w") Obj.write("A poem by Paranhansa Yogananda") obj.write("Better Than Heaven or Arcadia") obj.write("I love Thee ,o my India") obj.write("and thy love I shall give") obj.close() obj1=open("new.txt","r") s1=obj1.read(48) print(s1) obj1.close()	2
20	Write the different between read(), readline() and readlines() function in Python file.	2

21	Consider the following code and then answer the questions follow.
	mydict={'a' :27, 'b ':43, 'c' :25, 'd':30}
	valA=' '
	for i in mydict:
	if(i>valA):
	valA=i
	valB=mydict[i]
	print(valA) #Line1
	print(valB) #Line2
	print(30 in mydict #Line3
	mylist=list(mydict.items())
	mylist.sort() # Line4
	print(mylist[-1]) #Line 5
	i) What does the Line 1 produce? (ii) What output does Line 2 produces
	(iii). What does the Line 3 produce? (iv) What does the Line 5 produce?
	(v) what is return value from the list sort() function in Line 4
		2

22	Explain the use of Primary Key in Relation database Management System. How to define Primary key in a table?	2
23	a) What is the use of count(),max() and sum() function in SQL b) What is the use of DISTINCT keyword in SQL.	2
24	**Predict the output of the Python code given below** num=1 def myfun(): num=10 return num print(num) print(myfun()) print(num)	2

OR

```
def call(p=40,q=20):
    p=p+q
    q=p-q
    print(p,'@',q)
    return p
r=200
s=100
r=call(r,s)
print(r,'@',s)
s=call(s)
print(r,'@',s)
```

25 Different between count() and max() function in SQL with appropiate example

OR

Categories the following command as DDL or DML

creat,delete,update,drop

2

Section-C

26

Employee –Table

Name	Dept	Salary
Amit	Comp	4000
Suresh	Sales	3000
Vimal	Comp	5000
Ramesh	Mkt	6500
Naresh	Sales	5400

1) Update employee
2) Set salary=salary+500;
3) Update employee
4) Set salary=salary+1000
   Where dept='Sales';
5) Select DiSTINCT Dept from employee

1+2

b). **Table –CLUB**

Coach-Id	CoachName	Age	Sports	Date of App	Pay	Sex
1	Kukreja	35	Karate	27/03/1996	1000	M
2	Ravina	34	Karate	20/01/1998	1200	F
3	Karan	34	Squash	19/02/1998	2000	M
4	Tarun	33	BasketBall	01/01/1998	1500	M
5	Zubin	36	Swimming	12/01/1998	750	M
6	Ketaki	36	Swimming	24/02/1998	800	F

Give the output of the following statements

(i) Select count(Distinct sports) from club;
(ii) Select Min(age) from Club where sex='F';
(iii) Select avg(pay) from club where sports='Karate';
(iv) Select sum(Pay) from Club where Datofapp>'31/01/98'

27 Write a method in Python that count the number of ‘Me’ or ‘MY’ words presents I a text file ‘Story.txt’ if the ‘Story.txt’ contents are as follows. 3

My first book
Was Me and
My family. It
gave me
chance to be
known to the
world

The output of the function should be

Count of Me/My in file is

Or

b). Write a function that copies a text file “Source.txt” onto “target.txt” barring the lines starting with a ‘@’ sign.

28 3

Staff Table

a)

ID	Staff_NAME	Staff_AGE	STAFF_ADDRESS	Salary	Department
1	ARYAN	22	MUMBAI	18000	Computer Sci
2	SUSHIL	32	DELHI	20000	History
3	MONTY	25	MOHALI	22000	Maths
4	AMIT	20	ALLAHABAD	12000	History
5	Shyam	23	Delhi	15000	Maths
6	Ram	45	Mumbai	18000	Computer Sci

Payment Table

Payment_ID	DATE	Staff_ID	Department	AMOUNT
101	30/12/2009	1	History	3000.00
102	22/02/2010	3	Maths	2500.00
103	23/02/2010	4	Computer Sci	3500.00

(i) SELECT Staff_ID, Staff_NAME, Staff_AGE, AMOUNT

FROM STAFF s, PAYMENT p

WHERE s.ID =p.STAFF_ID;

(II) select staff_name, avg(Salary) from staff

Group by

(III) select staff_name,salary, S.Department, amount from Staff S, Payment P

Where S.department=P.Department and amount>=3000

b). Write the command to insert a record in a table

29 Write a program to create a dictionary of employee that contains Name and salary. 3

Dict={‘ram’:4200,’raj’:1500,’Amar’:1700,’Juhi’:3200,’Nitin’:2800,’Ramu’:1750}

. Now Perform the following operation in the STACK:

A. PUSH a stack to store name of those employees whose salary <25000.

B. POP and display records of stack.

30 Given a list, and we have to create two lists from first half elements and second half elements of a list in Python. 3

Input

List1=[10,20,30,40,50,60]

OutPut

List2=[10,20,30]

List3=[40,50,60]

b). Write a Program in Python to Find the Smallest and the Largest List Elements on Inputs Provided by the User.

Section-D

31 2+3

Table-Student

S.no	Name	Stipend	Stream	AvgMarks	Grade	Class
1	Karan	400.00	Medical	78.5	B	12B
2	Divakar	450.00	Commerce	89.2	A	11C
3	Divya	300.00	Commerce	68.6	C	12C
4	Arun	350.0	humanities	73.1	B	12C
5	Sabina	500	Nonmedical	90.6	A	11A
6	John	400	Medical	75.4	B	12B
7	Robert	250	Humanities	64.4	C	11A
8	Rubina	450	Nonmedical	88.3	A	12A
9	Vikas	500	nonmedical	92.0	A	12A

Write the SQL command for the following on the basis of given table Student

(a) Select all the nonmedical stream students from student.

(b) List the names of the those students who are in class 12 sorted by stipend

(c) List all the student sorted by avgMark in descending order.

(d) Update stipend by 300 whom stream is medical.

(II)**Give the Output of the following SQL statements**

(a) Select min(avgmarks) from student where avgmarks>=75

(b) Select sum(stipend) from student where Grade='B'

(c) Select count(DISTINCT) from student.

32 2+3

a) The file "New.txt" contain the following

Better than heaven or Arcadia
I love thee ,O my India !
And thy love I shall give
To every brother I shall give
To every brother nation that lives

Consider the given file, what output will be produced by the following code

```
obj1=open("New.txt","r")
s1=obj1.readline()
s2=obj1.readline()
s3=obj1.readline()
s4=obj1.read(15)
print(s4)
obj1.close()
```

b) The book table of test database contains the records shown below

Title	ISBN
Die to Live	78127873915
Again?	23686286243
Ushakaal	12678987036
Ushakiran	42568987036

```
import mysql.connector as mysql
conn=mysql.connect(host="localhost",user="root",password="root",database="test")
cursor=------------------------------------ Statement 1
cursor. execute("select * from book")
row=-------------------------------------Statement 2
while row in not None:
        print(-----------)                    Statement 3
        row=cursor.fetchone()
```

OR

Find the output of the following code

```
a=10
def call():
    global a
    a=15
    b=20
    print(a)
call()
```

33	Write a program to create a CSV file to store student data(Roll No, Name, Marks).obtain the data from user and write 10 records into a file. (1) ADD() to accept and add data of a student to a CSV file 'record.csv'. (2) Countr() :- to count the records of students whose have marks more than 76. OR Write a function stats() that accept a filename and reports the file longest line.	5

Section-E

34 Naveen created a table Sales with a set of records maintain the sales of months. After creating table he has entered 5 records — 1+1+2

Room-No	Name	January	February	March	Total
1001	Karan	2500	2500	2400	7400
1002	Ramesh	2200	2100	2500	6800
1003	Vimal	2450	1200	2300	5950
1004	Narain	3200	2540	3600	9340
1005	Naman	2560	3600	4500	10660

Based on the data given above answer the following questions

i. Identify the most appropriate column which can be a primary key.

ii. If two column are added, what will the new degree and cardinality of the above table.

iii. Write the statement

a. Insert a new records in a table.

b. Show the commission of 20% from total.

OR(option for part III only)

iii. Write the statement

a. Add a new filed march with char data type in a table.

b. Fill the value of march field with value 3000 in all rows.

35 — 2+2

a) Write a function that receives two string and store all the vowels of both strings in a new string . After that display the new string.

b) Write a program that checks for presence of a value inside a dictionary and print its keys.

Info={'Riya': 'CSC', ' marks' : 'Eco' , 'Preet' : 'Eng' , 'Kamal' : 'Evs'}