SET	A/B/C

INDIAN SCHOOL MUSCAT
FINAL EXAMINATION 2022
INFORMATICS PRACTICES(065)

CLASS: XII Max.Marks: 70

Date: 26/11/2022

MARKING SCHEME			
SET	QN.NO	VALUE POINTS	MARKS SPLIT UP
		SECTION - A	
	1.	In Mysql, _____- is used to avoid duplicate values while displaying query result. DISTINCT	1
	2.	In Python_____ Command is used to display last five rows of a series object **'S'**, you may write: iv. S.tail()	1
	3.	A mail or message sent to a large number of people indiscriminately without their consent is called_____ SPAM	1
	4.	Identify the odd one from the following: ii. File Explorer i	1
	5.	_____is the trail of data we leave behind when we visit any website (or use any online application or portal) to fill-in data or perform any transaction. iii. Digital footprint	1
	6.	In MySql ,_____ command is used to display the structure of the table. DESC	1
	7.	Identify the domain name of the following URL: **www.income.in**	1
	8.	In MSql _____ is used to for character pattern matching Like	1
	9.	_____-can be defined as the practical and holistic approach and the founding pillar of cutting down waste from our mother earth. E-WASTE	1
	10.	_____ is the process of gaining unauthorized access into computing device, or group of computer systems. HACKING	1
	11.	In Python _____command is used to give a heading to a graph. TITLE	1

	12.	DML stands for (b) Data Manipulation Language	1
	13.	The practice of taking someone else's work or ideas and passing them off as one's own is known as_____. **Plagiarism**	1
	14.	In MySql _____ is used to group all the similar records together. (c) Group by	1
	15.	Legal term to describe the rights of a creator of original creative or artistic work is: i. Copyright	1
	16.	_____is a protocol used to transfer e-mail messages and attachments. SMTP	1
	17.	iii. A is True but R is False	
	18.	i. Both A and R are true and R is the correct explanation for A	1
		SECTION -B	
	19	**SELECT Class, COUNT (*) FROM STUDENT GROUP BY Class _sec Having class_sec=″xii″ or class_sec=″xi″**	2
	20	0 True 1 False 2 False 3 False dtype: bool	2
	21	Comma separated value ½ To transfer the content from csv file to python object name. read_csv(“file name”) ¾ To transfer the content from python to csv file df1.to_csv( ) ¾	2
	22	Where clause is used to specify the general condition(s) along with select, update and delete. 1 mark with proper example Ex: select * from emp where sal>2000; Having Clause is used to specify the condition along with group by clause. Select deptno,count(*) from emp group by deptno having count(*)>1;1 mark with proper example	2
	23	import pandas as pd data1={'Qtr1':5000,'Qtr2':8000,'Qtr3':12000,'Qtr4': 18000} data2={'A' :13000,'B':14000,'C':12000} totSales={"Terms":data1,"Values":data2} df=pd.DataFrame(totSales) print(df) print(df.index) 1 mark print(df.columns)1 mark	2
	24	Terms Values Qtr3 12000.0 NaN 1 mark	2

		Terms Values Qtr1 5000.0 NaN Qtr4 18000.0 NaN 1 mark C NaN 12000.0	
	25	Alter is used to change the structure of the table. ALTER TABLE emp add email varchar(20); Update is used to change the table values, Update emp set sal=sal+100;	2
		SECTION-C	
	26.	import pandas as pd data=[[1,'Karan',100],[2,'Paul',95],[3,'Sam' ,96],[4,'Yuvraj',88]] student=pd.DataFrame(data,columns=["Rollno","Name","Marks"]) print(student)	½+1+1+1/2=3
	27.	Based on table **STUDENT** given here, write suitable SQL queries for the following **Roll No | Name | Class | Gender | City | Marks** 1 | Abhishek | XI | M | Agra | 430 2 | Prateek | XII | M | Mumbai | 440 3 | Sneha | XI | F | Agra | 470 4 | Nancy | XII | F | Mumbai | 492 5 | Himnashu | XII | M | Delhi | 360 6 | Anchal | XI | F | Dubai | 256 7 | Mehar | X | F | Moscow | 324 8 | Nishant | X | M | Moscow | 429 a) Write a Query to display how many students are there in each city. Select city,count(*) from student group by city; 1 mark b) Write a Query to display all the Male students name. select name from student where gender=”M”; 1 mark c) Write a Query to display all the details whose mark is greater than 450. Select * from student where marks>450; 1 mark OR What is the difference between Group By Clause and Order by Clause? Explain with an example. Group by : used to keep all the similar records together 1 ½ (with an example) Select count(8),deptno from emp group by deptno; Order by is used to sort all the records based on a filed either ascending or descending order. 1 ½ (with an example) Select * from emp order by name desc / asc;	3
	28.	import pandas as pd data=[["nancy",200],["sam",300],["martin",400]] Data1234=pd.DataFrame(data,columns=["Name","Salary"]) print(Data1234) Data1234["Deductions"]=[100,30,50]	1 ½ +1 ½ =3

		print(Data1234) Data1234["NetSal"]=Data1234["Salary"]-Data1234["Deductions"] print(Data1234)	
	29.	**Find the output of the following:** i. Select round(234.54,1)+round(34.67); 234.5+34=268.5 ii. Select mod(45,2)+10; 11 iii. Select upper(left("Welcomes",2)); WE	1+1+1=3

	30.	a) 4
		b)
		>> a=p.Series(["Van","Car","Lorry","Bus"])
		>>> print(a)
		0 Van
		1 Car
		2 Lorry
		3 Bus
		dtype: object
		>>> a.index.name="Index No"
		>>> print(a)
		Index No
		0 Van
		1 Car
		2 Lorry
		3 Bus
		c)False
			1+1+1=3

		SECTION - D	
	31.	Write suitable SQL query for the following: i. Display 5 characters extracted from 5th left character onwards from the string 'world leader-2022'. SELECT SUBSTR("WORD LEADER",5,5); ii. Display the position of occurrence of string 'WO' in the string 'WELCOME WORLD'. SELECT INSTR("WELCOME WORLD","WO"); iii. Round off the value 456.78 to two decimal place. Select round(456.78,2); iv. Display the remainder of 75 divided by 5. Select mod(75,5) v. Remove all the leading and trailing spaces from the String "_ _ _ Test 2022_ _ (Assume _ as the blank space) select trim("_ _ _ Test 2022_ _") **OR** Explain the following SQL functions using suitable examples. i. LCASE() – used to convert all the upper case characters in to lower case ii. MID() – it is used to extract no of characters based on the position specified iii. TRUNCATE() – it is used to simply the cut the number of decimal point specified iv. DAYNAME() – it is used to display the day name of the week v. POWER() – it is used to find the result of m to the power n	5*1=5
	32.	import pandas as pd import matplotlib.pyplot as plt month=['jan','feb','mar','apr'] Avg_monthly_Temp=[32,29,34,30] plt.plot(month,Avg_monthly_Temp,marker="*") 1 plt.xlabel("Month") 1 plt.ylabel("Temp") 1	5

		plt.title("Monthly Temp") 1 plt.show() 1 OR import pandas as pd import matplotlib.pyplot as plt Term=['TERM 1','TERM 2','TERM 3','TERM 4'] Avg_marks=[85,94,84,90] df=pd.DataFrame(Avg_marks,Term) 1 print(df) df.plot(kind="bar") 1 plt.xlabel("Term") 1 plt.ylabel("Avg_marks") 1 plt.title("Average Marks") plt.show() 1/2 plt.savefig("aa.jpg") 1/2	

	33.	a)
		iteritems()
		It is used to access the data column wise.
		Example-
		`import pandas as pd`
		`l = [{'Name': 'Sachin', 'SirName':'Bhardwaj'},`
		`{'Name': 'Vinod', 'SirName':'Verma'}]`
		`df1=pd.DataFrame(l)`
		`print(df1)`
		`for(col_name,col_value) in df1.iteritems():`
		`print('\n')`
		`print('Column Name is ::',col_name)`
		`print('Column Values are::')`
		`print(col_value)`
			2

		b) `>> del df['List3']` ⟶We can simply delete a column by passing column name in subscript with df `>>df` Output- List1 List2 0 10 20 1 15 20 2 18 20 3 22 20 c)	1

Accessing the data frame through iloc()

It is used to access a group of rows and columns based on numeric index value.

Syntax-

`Df.loc[StartRowindexs : EndRowindex, StartColumnindex : EndColumnindex]`

Note - If we pass : in row or column part then pandas provide the entire row or column respectively.

```
1  import pandas as pd
2  Runs={ 'TCS': { 'Qtr1':2500,'Qtr2':2000,'Qtr3':3000,'Qtr4':2000},
3
4          'WIPRO': {'Qtr1':2800,'Qtr2':2400,'Qtr3':3600,'Qtr4':2400},
5
6          'L&T': { 'Qtr1':2100,'Qtr2':5700,'Qtr3':35000,'Qtr4':2100]}
7  df=pd.DataFrame(Runs)
8  print(df)
9  print(df.iloc[0 :2 ,1:2 ])
10 print(df.iloc[ : , 0:2])
11
```

To access First two Rows and Second column

2

		SECTION-E	
	34.	a)Select cname from cloth where cname like “%s%”; b) Select * from cloth where price not between 750 and 800;	2+2=4
	35.	import pandas as pd data={"Rollno":[1,2,3,4,5],"Name":["Rhea","paul","Karan","Aishwarya","Sanjey"], "Total Marks":[450,415,449,400,471]} df1=pd.DataFrame(data) print(df1) print(df1.loc[2:3]) or import pandas as pd data={"Rollno":[1,2,3,4,5],"Name":["Rhea","paul","Karan","Aishwarya","Sanjey"], "Total Marks":[450,415,449,400,471]} df1=pd.DataFrame(data) print(df1) print(df1[df1["Total Marks"]>=450])	½+½+½+½+2