MARKING SCHEME

CLASS XII

INFORMATICS PRACTICES (065)

TIME: 3 HOURS   **M.M.70**

1.	iii. MAN	1
	1 mark for correct answer	
2.	ii. Installing antivirus for protection	1
	1 mark for correct answer	
3.	iii. Unused old computers	1
	1 mark for correct answer	
4.	iii. Null value	1
	1 mark for correct answer	
5.	i. 20500	1
	1 mark for correct answer	
6.	ii. Open	1
	1 mark for correct answer	
7.	ii. SELECT COUNT (*) FROM ORDERS;	1
	1 mark for correct answer	
8.	i. ROUND( )	1
	1 mark for correct answer	
9.	i. MAX ()	1
	1 mark for correct answer	
10.	iv. S.tail()	1
	1 mark for correct answer	
11.	iii. import pandas as pd	1
	1 mark for correct answer	
12.	iv. All of these	1

	1 mark for correct answer	
13.	iii. Avast **1 mark for correct answer**	1
14.	iv. Now() **1 mark for correct answer**	1
15.	i. Copyright **1 mark for correct answer**	1
16.	iii. Digital footprint **1 mark for correct answer**	1
17.	iii. A is True but R is False	1
18.	i. Both A and R are true and R is the correct explanation for A	1

19.	**Web Page:** A Web Page is a part of a website and is commonly written in HTML. It can be accessed through a web browser.
	
	Home Page: It is the first web page you see when you visit a website.
	
	1 mark for correct explanation of each term
	
	Or
	
	Four networking goals are:
	    i. Resource sharing
	    ii. Reliability
	    iii. Cost effective
	    iv. Fast data sharing
	
	½ mark for each goal
		2

20.	The problem with the given SQL query is that WHERE clause should not be used with Group By clause. To correct the error, HAVING clause should be used instead of WHERE. Corrected Query: SELECT HOUSE, COUNT(*) FROM STUDENT GROUP BY HOUSE HAVING HOUSE= 'RED' OR HOUSE='YELLOW'; **1 Mark for error identification** **1 Mark for writing correct query**	2

21.	Order By clause: The ORDER BY command is used to sort the result set in ascending or descending order. The following SQL statement displays all the customer's names in alphabetical order: SELECT Cname FROM Customers ORDER BY Cname; **1 mark for correct purpose** **1 mark for correct example**	2
22.	St={'Beas' :18, 'Chenab' :20 , ' Ravi' :20, ' Satluj' :18} S1=pd.Series(St) **1 mark for each correct python statement**	2

23.	**The e-waste management-**
	
	    i. **Saves the environment and natural resources**
	    ii. **Allows for recovery of precious metals**
	    iii. **Protects public health and water quality**
	    iv. **Saves landfill space**
	
	½ mark for each benefit
	
	Or
	
	i. No copyright violation
	ii. Share the expertise with others on the internet
	iii. Avoid cyber bullying
	iv. Respect other's privacy and diversity
	
	½ mark for each net etiquette
		2

24.	0 False 1 False 2 True 3 False **½ mark for each correct output**	2
25.	i. The index labels of df will include Q1,Q2,Q3,Q4,A,B,C **ii.** The column names of df will be: 1,2 **1 mark for each correct answer**	2

26.	i. 8
	   ii. No Output
	  iii. 0
	         15
		3

	1 mark for each correct output	
27.	import pandas as pd data=[[101,'Gurman',98],[102,'Rajveer',95],[103,'Samar' ,96], [104,'Yuvraj',88]] df=pd.DataFrame(data,columns=['Rno','Name', 'Marks']) **1 mark for each correct python statement**	3
28.	i. Stock['Special_Price']=[135,150,200,400] ii. Stock.loc['4']=['The Secret',800] iii. Stock=Stock.drop('Special_Price',axis=1) **1 mark for each correct statement**	3
29.	i. Nadar has become a victim of cyber bullying and cyber stalking. ii. She must immediately bring it into the notice of her parents and school authorities. And she must report this cyber crime to local police with the help of her parents. iii. Yes. The Information Technology Act, 2000 (also known as ITA-2000, or the IT Act) is the primary law in India dealing with cybercrime and electronic commerce. **1 mark for each correct answer** <center>OR</center> Ans. Plagiarism is the act of using or stealing someone else's intellectual work, ideas etc. and passing it as your own work. In other words, plagiarism is a failure in giving credit to its source. Plagiarism is a fraud and violation of Intellectual Property Rights. Since IPR holds a legal entity status, violating its owners right is a legally punishable offence. Any two ways to avoid plagiarism: • Be original • Cite/acknowledge the source **1 mark for correct definition** **1 mark for correct justification** **½ mark each for any two ways to avoid plagiarism**	3

30.	i. select max(marks) from student group by gender; ii. select min(marks) from student group by city; iii. select gender,count(gender) from student group by gender; **1 mark for each correct query** **OR** GROUP BY clause is used in a SELECT statement in combination with aggregate functions to group the result based on distinct values in a column. **For example:** To display total number of male and female students from the table STUDENT, we need to first group records based on the gender then we should count records with the help of count() function.	3

Considering the following table STUDENT:

RollNo	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

SQL query for the above-mentioned task is as follows:

select gender,count(gender) from student group by gender;

Output:
Gender   Count(Gender)
M   4
F   4

1 mark for correct significance
2 marks for correct example

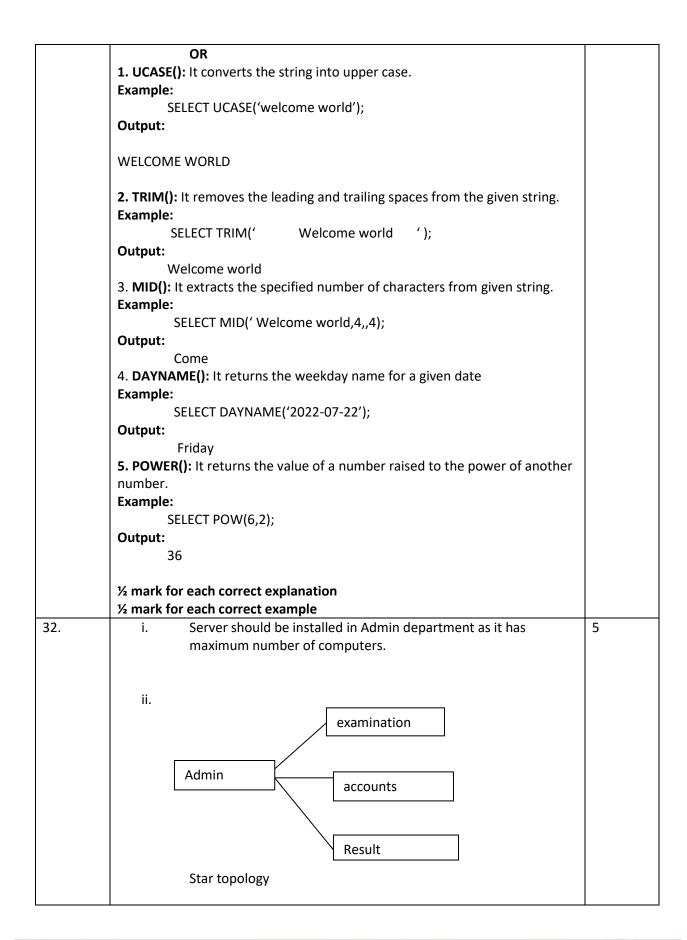| 31.	i. select mid('INDIA SHINING',7,7);
	ii. select INSTR('WELCOME WORLD','COME');
	iii. select round(23.78,1);
	iv. select mod(100,9);
	v. select trim(userid) from users;
	
	1 mark for each correct query
		5

	OR
	1. **UCASE():** It converts the string into upper case.
	Example:
	      SELECT UCASE('welcome world');
	Output:
	
	WELCOME WORLD
	
	2. **TRIM():** It removes the leading and trailing spaces from the given string.
	Example:
	      SELECT TRIM(' Welcome world ');
	Output:
	      Welcome world
	3. **MID():** It extracts the specified number of characters from given string.
	Example:
	      SELECT MID(' Welcome world,4,,4);
	Output:
	      Come
	4. **DAYNAME():** It returns the weekday name for a given date
	Example:
	      SELECT DAYNAME('2022-07-22');
	Output:
	      Friday
	5. **POWER():** It returns the value of a number raised to the power of another number.
	Example:
	      SELECT POW(6,2);
	Output:
	      36
	
	½ mark for each correct explanation
	½ mark for each correct example	

32.	i. Server should be installed in Admin department as it has maximum number of computers. ii. Star topology	5

	iii. Hub/Switch iv. Dynamic v. Video conferencing **1 Mark for each correct answer**	
33.	import matplotlib.pyplot as plt Category=['Gold','Silver','Bronze'] Medal=[20,15,18] plt.bar(Category,Medal) plt.ylabel('Medal') plt.xlabel('Medal Type') plt.title('Indian Medal tally in Olympics') plt.show() **½ mark for each correct statement** **Python statement to save the chart:** plt.savefig("aa.jpg") **1 mark for the correct statement** **OR** import matplotlib.pyplot as plt Week=[1,2,3,4] Avg_week_temp=[40,42,38,44] plt.plot(Week,Avg_week_temp) plt.show() **1 mark for each correct statement**	5

34.	i. SELECT LOWER(CNAME) FROM CLOTH;
	ii. SELECT MIN(PRICE) FROM CLOTH;
	
	      1 mark for each correct query
	
	iii. SELECT COUNT(*) FROM CLOTH GROUP BY SIZE HAVING SIZE='M';
	                   OR
	      SELECT YEAR(DOP),COUNT(*) FROM CLOTH GROUP BY YEAR(DOP);
	
	      2 marks for correct query
		1+1+2

35.	A. Output: i. (5,4)	1+1+2

ii.	School	tot_students	Topper	First_Runner_up	
CO3	GPS	20	18	2	
CO4	MPS	18	10	8	

1 mark for each correct output

B. Python statement:

print(df.loc['CO2': 'CO4', 'Topper'])

OR

print(df.Tot_students-df.First_Runnerup)

2 marks for correct Python statement