

MARKING SCHEME

CLASS XII

INFORMATICS PRACTICES (065)

TIME: 3 HOURS

M.M.70

1.	iii. Gateway 1 mark for correct answer	1
2.	ii. Computer Virus 1 mark for correct answer	1
3.	ii. Digital property 1 mark for correct answer	1
4.	iii. SELECT * FROM PRODUCT ORDER BY PRICE DESC; 1 mark for correct answer	1
5.	i. 4 1 mark for correct answer	1
6.	ii. Free 1 mark for correct answer	1
7.	ii. 15.8 1 mark for correct answer	1
8.	i. ROUND() 1 mark for correct answer	1
9.	ii. MIN () 1 mark for correct answer	1
10.	i. print(Marks.tail(2)) 1 mark for correct answer	1
11.	iv. statistical 1 mark for correct answer	1
12.	ii. Heterogenous	1

	1 mark for correct answer	
13.	ii. Cookies 1 mark for correct answer	1
14.	ii. DAYNAME 1 mark for correct answer	1
15.	iv. Plagiarism 1 mark for correct answer	1
16.	iii. A song you wrote 1 mark for correct answer	1
17.	ii. Both A and R are true and R is not the correct explanation for A.	1
18.	iii. A is True but R is False	1
19.	<p>Static web page: In static web pages, Pages will remain same until someone changes it manually and information changes rarely. Dynamic web page: In dynamic web pages, Content of pages are different for different visitors and information change frequently. 2 Mark for writing correct difference.</p> <p>OR</p> <p>Repeater: A repeater is an electronic device that receives a signal and retransmits it. It regenerates the signal and forwards the refreshed signal. A repeater operates at the physical layer.</p> <p>Firewall: A Firewall is a network security device that monitors and filters incoming and outgoing network traffic based on an organization's previously established security policies.</p> <p>1 Mark each for writing correct function of respective networking device.</p>	2
20.	<p>This is because the column Fee contains a NULL value and the NULL values are not taken into account in aggregate functions.</p> <p>So, Command1 returns the total number of records in the table which was 5 in this case whereas Command2 returns the total number of not null values in the column name.</p> <p>1 Mark for writing correct reason different output. 1 Mark for writing correct justification.</p>	2

21.	<p>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.</p> <p>For example:</p> <p>To display total number of CLASS XI AND XII students from the table STUDENT, we need to first group records based on the class then we should count records with the help of count() function. Considering the following table STUDENT:</p> <table border="1" data-bbox="293 653 1219 947"> <thead> <tr> <th>RollNo</th> <th>Name</th> <th>Class</th> <th>Gender</th> <th>City</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Abhinav</td> <td>XI</td> <td>M</td> <td>Ajmer</td> <td>40</td> </tr> <tr> <td>2</td> <td>Prachi</td> <td>XII</td> <td>F</td> <td>Mumbai</td> <td>44</td> </tr> <tr> <td>3</td> <td>Neha</td> <td>XI</td> <td>F</td> <td>Chennai</td> <td>43</td> </tr> <tr> <td>4</td> <td>Nancy</td> <td>XII</td> <td>F</td> <td>Mumbai</td> <td>30</td> </tr> <tr> <td>5</td> <td>Hemant</td> <td>XII</td> <td>M</td> <td>Delhi</td> <td>33</td> </tr> <tr> <td>6</td> <td>Ajay</td> <td>XI</td> <td>M</td> <td>Hyderabad</td> <td>53</td> </tr> </tbody> </table> <p>SQL query for the above-mentioned task is as follows: select class,count(class) from student group by class;</p> <p>Output: Class Count(Class) XI 3 XII 3</p> <p>1 mark for correct purpose 1 mark for correct example</p>	RollNo	Name	Class	Gender	City	Marks	1	Abhinav	XI	M	Ajmer	40	2	Prachi	XII	F	Mumbai	44	3	Neha	XI	F	Chennai	43	4	Nancy	XII	F	Mumbai	30	5	Hemant	XII	M	Delhi	33	6	Ajay	XI	M	Hyderabad	53	2
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22.	<pre>stu_marks= pd.Series([67,72,85,83], index=["Maths" , "English", "Hindi", "IP"])</pre> <pre>>>> print(stu_marks)</pre> <p>OUTPUT: Maths 67 English 72 Hindi 85 IP 83</p> <p>1 mark for each correct python statement</p>	2																																										

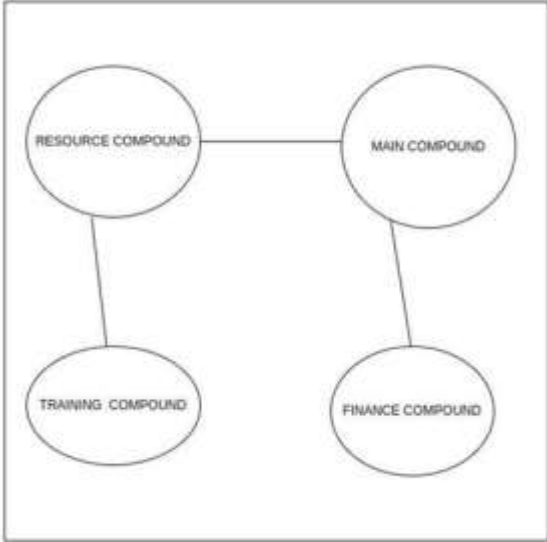
23.	<p>i. Give Your Electronic Waste to a Certified E-Waste Recycler ii. Donating Your Outdated Technology iii. Give Back to Your Electronic Companies and Drop Off Point 1 mark for each solution.(Write any two).</p> <p>Or</p> <p>The continuous use of devices like smartphones, computer desktop, laptops, head phones etc. can cause a lot of health hazards if not addressed. These are:</p> <p>i. Impact on hearing: Using headphones or earphones for a prolonged time and on high volume can cause hearing problems and in severe cases hearing impairments. ii. Impact on eyes: This is the most common form of health hazard as prolonged hours of screen time can lead to extreme strain in the eyes.</p> <p>1 mark for each hazard (Write any two).</p>	2
24.	<p>0 True 1 True 2 False 3 True</p> <p>½ mark for each correct output</p>	2
25.	<p>i. The index labels of df will include 0,1 ii. The column names of df will be: a,b,c</p> <p>1 mark for each correct answer</p>	2
26.	<p>i. 4 ii. 'DHN' iii. 0</p> <p>1 mark for each correct output</p>	3
27.	<pre>import pandas as pd employee= pd.DataFrame({'Name':['Rahul','Sakshi','Saksham','Arun'], 'Salary':[50000,46000, 38000, 25700]}), index=[101,102,103,104]); print(employee)</pre> <p>OR</p>	3

	<pre>import pandas as pd Dic= {'Name':['Rahul','Sakshi','Saksham','Arun '],'Salary':[50000,46000, 38000, 25700]}</pre> <pre>employee = pd.DataFrame(Dic,index=[101,102,103,104]); print(employee)</pre> <p>1 mark for each correct python statement</p>	
28.	<p>i. df.Kolkata['population']=500000 ii. df.rename(index={"population": "pop"}, inplace=True) iii. print(df.Delhi['hospitals'])</p> <p>1 mark for each correct statement</p>	3
29.	<p>i. Anisha has become a victim of phishing. ii. She must immediately bring it into the notice of cyber cell and must report this cybercrime to local police. iii. Yes.</p> <p>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</p> <p>1 mark for each correct answer OR</p> <p>Net Etiquettes refers to the proper manners and behavior we need to exhibit while being online. These includes:</p> <ol style="list-style-type: none"> 1. No copyright violation: we should not use copyrighted materials without the permission of the creator or owner. We should give proper credit to owners/creators of open source content when using them. 2. Avoid cyber bullying: Avoid any insulting, degrading or intimidating online behavior like repeated posting of rumors giving threats online, posting the victim's personal information, or comments aimed to publicly ridicule a victim. <p>1 mark for correct definition. 1 mark for each correct etiquette.</p>	3
30.	<p>a. Select * from Faculty where First_name like '%t'; b. Select * from Faculty order by Hire_date desc; c. Select max(Salary), min(Salary) from Faculty;</p> <p>1 mark for each correct answer</p> <p>OR</p> <p>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:</p> <p>SELECT Cname FROM Customers ORDER BY Cname;</p> <p>1 mark for correct significance 1 mark for correct example</p>	3

SECTION - D

31.	a. SELECT UPPER(COMPANY) FROM VEHICLE; b. SELECT MIN(PRICE) FROM VEHICLE; 1 mark for each correct query c. select Company, count(Type) from Vehicle group by Company; OR select Type, sum(Price) from Vehicle group by Type; 2 mark for each correct query	1+1+2
32.	A. Output i. (4,3) ii Sports.loc['SD5']=[5, 'RAM', 'M'] 1 mark for each correct answer B. del Sports['GENDER'] OR Sports.drop(index= 'SD3')) 2 mark for correct python statement	1+1+2

	SECTION - E	
33.	<p>i. select mid('INDIA RISING',3,5); ii. select INSTR('PYTHON FUNDAMENTALS','FUNDA'); iii. select round(453.668.78,2); iv. select mod(120,7); v. select trim(student_id) from student;</p> <p>1 mark for each correct query</p> <p style="text-align: center;">OR</p> <p>1. LCASE(): It converts the string into lower case. Example: SELECT LCASE('WELCOME');</p> <p>Output: 'welcome'</p> <p>2. TRIM(): It removes the leading and trailing spaces from the given string. Example: SELECT TRIM(' Welcome ');</p> <p>Output: 'Welcome'</p> <p>3. SUBSTR(): It extracts the specified number of characters from given string. Example: SELECT SUBSTR(' Welcome world,4,3);</p> <p>Output: 'Com'</p> <p>4. MONTHNAME(): It returns the month name for a given date Example: SELECT MONTHNAME('2022-07-22');</p> <p>Output: JULY</p> <p>5. TRUNCATE():The TRUNCATE() function truncates a number to the specified number of decimal places. Example: SELECT TRUNCATE(23.454,2);</p> <p>Output:</p> <p>½ mark for each correct explanation ½ mark for each correct example</p>	5

<p>34.</p>	<p>i. Cable Layout:</p>  <pre> graph LR RC((RESOURCE COMPOUND)) --- MC((MAIN COMPOUND)) RC --- TC((TRAINING COMPOUND)) MC --- FC((FINANCE COMPOUND)) </pre> <p>ii. Bus Topology iii. Server should be installed in Training Compound as it has maximum number of computers. iv. Hub/Switch v. Optical Fibre</p>	<p>5</p>
<p>35.</p>	<pre> import matplotlib.pyplot as plt Language=['C++','Python','Java'] Number_of_students = [20,15,18] plt.bar(Language,Number_of_students) plt.ylabel('Number of Students') plt.xlabel('Language') plt.title('Number of Students studying particular Language') plt.show() </pre> <p>½ mark for each correct statement</p> <p>Python statement to save the chart: plt.savefig("ab.jpg") 1 mark for the correct statement</p> <pre> import matplotlib.pyplot as plt House = ['Shivaji', 'Tagore', 'Raman', 'Ashoka'] Medal_count = [50,60,40,55] plt.plot(House,Medal_count) plt.show() </pre> <p>1 mark for each correct statement</p>	<p>5</p>