

**CBSE MARKING SCHEME ADDITIONAL PRACTICE PAPER**  
**Class: XII Session: 2023-24**  
**Informatics Practices (065)**

**Time allowed: 3 Hours**

**Maximum Marks: 70**

1	c. Shred sensitive documents, use strong passwords, and monitor financial accounts  (1 mark for correct answer)	1
2	b. Air Pollution  (1 mark for correct answer)	1
3	c. Router  (1 mark for correct answer)	1
4	d. COUNT()  (1 mark for correct answer)	1
5	a. plt.hist(values)  (1 mark for correct answer)	1
6	d. SELECT * FROM customers WHERE email IS NULL;  (1 mark for correct answer)	1
7	c. Bus topology  (1 mark for correct answer)	1
8	b. Real estate properties  (1 mark for correct answer)	1
9	c. Phishing  (1 mark for correct answer)	1
10	c. A is True but R is False  (1 mark for correct answer)	1
11	b. Both A and R are true but R is not the correct explanation for A  (1 mark for correct answer)	1

12	b. GROUP BY, ORDER BY  (1 mark for correct answer)	1
13	c. head()  (1 mark for correct answer)	1
14	a. UCASE()  (1 mark for correct answer)	1
15	d. numeric  (1 mark for correct answer)	1
16	d. NOW()  (1 mark for correct answer)	1
17	a. 15.79  (1 mark for correct answer)	1
18	d) Linux  (1 mark for correct answer)	1
19	<p><b>Net-etiquette:</b></p> <ul style="list-style-type: none"> <li>• No copyright violation</li> <li>• Share the expertise with others on the web</li> <li>• One should respect the privacy of others on the web</li> <li>• One should respect the diversity of others</li> </ul> <p>(½ mark for each correct net-etiquette)</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Communication-etiquette:</b></p> <ul style="list-style-type: none"> <li>• One should be precise in communication on the web</li> <li>• One should be polite in communication</li> <li>• One should respect the data limits</li> <li>• One should be credible</li> </ul> <p>(½ mark for each correct communication-etiquette)</p>	2
20	a. print(Dataf1.loc[['D1', 'D3'], ['F1', 'F3']]) b. print(Dataf1.loc[['D4', 'D3'], ['F3', 'F2']]) (1 mark for each correct answer )	2

21	<p>i. c. LENGTH() ii. b. Instr()</p> <p>(1 mark for each correct option )</p>	2
22	<pre>import pandas as pd data=[{'Ename':'John', 'Ecode':88}, {'Ename':'Emily', 'Ecode':92}, {'Ename':'Michael', 'Ecode':78}, {'Ename':'Sophia','Ecode':95}] df=pd.DataFrame(data) print(df)</pre> <p>( ½ mark for each correct Python statement)</p>	2
23	<p>URL stands for Uniform Resource Locator. It provides the location and mechanism (protocol) to access the resource, available on the web. URL is sometimes also called a web address.</p> <p>Example: <a href="http://www.ncert.nic.in">http://www.ncert.nic.in</a></p> <p>(1 mark for URL explanation, and 1 mark for any one example)</p>	2
24	<p>[20, 35, 40, 20, 35, 40]</p> <p>0 40 1 70 2 80</p> <p>(1 marks for list output and 1 marks for series output )</p>	2
25	<p>HAVING clause in SQL is used to filter the results of a GROUP BY query based on aggregated values.</p> <p>Distinction of having clause from where clause:</p> <p>The WHERE clause is applied to individual rows in the original dataset before any grouping is performed. It filters rows based on specific column conditions.</p> <p>While HAVING clause is applied to grouped results after the GROUP BY operation. It filters groups based on aggregated values, such as SUM, COUNT, AVG, etc.</p> <p>(1 mark for correct clarification of role of having clause) (1 mark for correct distinction of having clause from where clause)</p>	2

26	<p>a. SELECT LEFT(COLOR, 3) FROM Cars WHERE COLOR='Blue' OR COLOR='Black' OR COLOR='Brown';  b. UPDATE Cars SET Color = 'Green' WHERE CarID = 103;  c. Number of tuples: 6  Primary key column: CarID</p> <p>( 1 mark for each correct answer)</p> <p>OR</p> <p>a.</p> <table border="0"> <tr><td>Make</td><td>Model</td></tr> <tr><td>-----</td><td></td></tr> <tr><td>Ford</td><td>Mustang</td></tr> <tr><td>BMW</td><td>X5</td></tr> <tr><td>-----</td><td></td></tr> </table> <p>b.</p> <table border="0"> <tr><td>TotalCars</td></tr> <tr><td>-----</td></tr> <tr><td>2</td></tr> <tr><td>-----</td></tr> </table> <p>c.</p> <table border="0"> <tr><td>CarID</td><td>Make</td><td>Model</td></tr> <tr><td>-----</td><td></td><td></td></tr> <tr><td>106</td><td>Volkswagen</td><td>Golf</td></tr> <tr><td>-----</td><td></td><td></td></tr> </table> <p>(1 mark for each correct answer)</p>	Make	Model	-----		Ford	Mustang	BMW	X5	-----		TotalCars	-----	2	-----	CarID	Make	Model	-----			106	Volkswagen	Golf	-----			3
Make	Model																											
-----																												
Ford	Mustang																											
BMW	X5																											
-----																												
TotalCars																												
-----																												
2																												
-----																												
CarID	Make	Model																										
-----																												
106	Volkswagen	Golf																										
-----																												
27	<pre>import <u>pandas</u> as pd  data = {'Yosemite': 'California', 'Yellowstone': 'Wyoming', 'Glacier': 'Montana', 'Rocky Mountain': 'Colorado'}  national_parks = pd.Series(<u>data</u>) print(national_parks['<u>Yosemite</u>'])</pre> <p>(1 mark for filling each blank correctly)</p>	3																										
28	<p>i: ALTER TABLE Nutrients ADD Plan_Start_Date DATE;  (0.5 mark for alter command and 1 mark for add column)</p> <p>ii: ALTER TABLE Nutrients MODIFY Calorie FLOAT;  (0.5 mark for alter command and 1 mark for modifying column)</p>	3																										

29	<p>a. Active Digital Footprint: Alex's active digital footprint includes actions like posting photos and comments on social media platforms, making his intentional online activities visible to others.</p> <p>b. Passive Digital Footprint: Alex's passive digital footprint is created when websites and mobile apps collect data about his browsing habits and preferences without his direct input, often for purposes like targeted advertising.</p> <p>c. implications of both active and passive digital footprints for Alex's online privacy and security: Alex's active digital footprint may expose him to privacy risks if he shares sensitive information publicly. His passive digital footprint, when mishandled, can lead to data privacy concerns and potentially put his personal information at risk, emphasising the need for cautious online behaviour and data protection measures.</p> <p>( 1 mark for answering each part correctly)</p> <p style="text-align: center;"><b>OR</b></p> <p>1. Reduce: Individuals can minimise e-waste by making mindful purchasing decisions, such as buying longer-lasting electronic devices and only acquiring what is genuinely needed. For example, opting for modular smartphones with replaceable components can extend the lifespan of the device.</p> <p>2. Reuse: Encouraging the reuse of electronic devices involves selling, donating, or trading-in old gadgets. For instance, individuals can refurbish and sell their old laptops to extend their use.</p> <p>3. Recycle: To recycle e-waste responsibly, individuals can participate in e-waste recycling programs or drop-off centers. For instance, recycling old cell phones at designated collection points prevents them from ending up in landfills.</p> <p>(1 mark for each approach explained correctly)</p>	3
30	<p>i. Add a column 'Salary'</p> <pre>df['Salary'] = [55000, 60000, 65000, 58000]</pre> <p>ii. Include a new employee named 'Eve' with Employee_ID 'EMP005', working in the 'Finance' department, and a salary of 62000.</p> <pre>Employees.loc[4] = ['Eve', 'EMP005', 'Finance', 62000]</pre> <p>iii. Rename the 'Employee_ID' column to 'ID'</p> <pre>df = df.rename(columns={'Employee_ID': 'ID'})</pre> <p>(1 mark for each part answered correctly)</p>	3

31	<p>i) UPDATE Products SET QuantityInStock = QuantityInStock + 10 WHERE ProductID = 101;</p> <p>ii) SELECT * FROM Products WHERE ProductName = 'Wireless Mouse' AND Category = 'Electronics';</p> <p>iii) UPDATE Products SET PricePerUnit = PricePerUnit * 1.05 WHERE Category = 'Electronics';</p> <p>iv) SELECT ProductName FROM Products WHERE QuantityInStock = 0;</p> <p>(1 mark for each part answered correctly)</p>	4
32	<p>i) D. matplotlib.pyplot</p> <p>ii) B. kind</p> <p>(1 mark for each part answered correctly)</p> <p>iii) pd.read_csv('Quarterly_Sales.csv')</p> <p style="text-align: center;"><b>OR</b></p> <pre>print(df['Qtr1']+df['Qtr2'])</pre> <p>(2 marks for correct answer)</p>	4
33	<p>i. SELECT MOD(15, 4) AS Remainder;</p> <p>ii. SELECT YEAR(NOW()) AS CurrentYear;</p> <p>iii. SELECT LEFT('Hello, World!', 3) AS ExtractedString;</p> <p>iv. SELECT UPPER(description) AS UppercaseDescription FROM product;</p> <p>v. SELECT INSTR(acc_no, '-') FROM bank;</p> <p style="text-align: center;"><b>OR</b></p> <p>i) ACC_NO as it is present in both the tables having related values.</p> <p>ii) SELECT C.CUSTOMER_NAME, B.AMOUNT FROM CUSTOMER C JOIN BANK B ON C.ACC_NO = B.ACC_NO ORDER BY B.AMOUNT ASC;</p> <p>iii) SELECT SUM(AMOUNT) AS TOTAL_AMOUNT FROM BANK;</p> <p>iv) SELECT COUNT(*) from CUSTOMER;</p> <p>v) SELECT MIN(AMOUNT) from BANK;</p> <p>(1 mark for each part answered correctly)</p>	5

<p>34</p> <p>A.</p> <p>(1 mark correct answer)</p> <p>B. Star (1 mark for correct answer)</p> <p>C. Building B as it has maximum number of computers. (1 mark for correct answer)</p> <p>D.</p> <ul style="list-style-type: none"> <li>I) Hub/Switch should be placed in each building.</li> <li>II) Repeater is placed between Building B to building D</li> </ul> <p>(1/2 mark for each part answered correctly)</p> <p>E. WAN (1 mark correct answer)</p>	<p>5</p>
<p>35</p> <pre>import matplotlib.pyplot as plt district = ['VII', 'VIII', 'IX', 'X'] houses = [40,45,35,44] plt.bar(district, houses) plt.savefig('e:\house.png') plt.show()</pre> <p>1 mark for the import statement 1 mark for creating both the list 1 mark for appropriate usage of bar() 1 mark for savefig() 1 mark for show()</p> <p style="text-align: center;"><b>OR</b></p> <pre>import matplotlib.pyplot as plt Day=[1,2,3,4,5,6,7] Study_Hours=[5,4,6,5,7,8,10] plt.plot(Day,Study_Hours) plt.savefig('d:\study.png') plt.show()</pre> <p>1 mark for the import statement 1 mark for creating both the list 1 mark for appropriate usage of plot() 1 mark for savefig() 1 mark for show()</p>	<p>5</p>