

Series JPR_PB/25-26/12/065/SET No.9**Set No: 09****Class: XII****Subject: Informatics Practices (065)****Maximum Marks: 70****Period: 3 Hours****Marking Scheme**

Q.	Section-A (21 x 1 = 21 Marks)	Mark
1	True	1
2	(C) MOD	1
3	(C) Phishing	1
4	(A) df.to_csv('file.csv')	1
5	(C) Modem	1
6	(C) 3	1
7	(c) GNU General Public License	1
8	(C) 0,1,2...	1
9	(B) That can serve as Primary Key	1
10	(A) FTP	1
11	(B) SELECT COUNT (*) FROM SALES;	1
12	(C) Output with NaN for unmatched keys	1
13	(B) IT Act, 2000	1
14	(B) ORDER BY	1
15	(A) df.head(3)	1
16	(B) Bus Topology	1
17	(A) INSTR	1
18	(A) pd.DataFrame()	1
19	(C) UPPER	1
20	(A) Both A and R are true and R is the correct explanation for A	1

21	(B) Both A and R are true and R is not the correct explanation for A	1
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Q	Section-B (7 x 2=14 Marks)	Mark
22	<p>(A)</p> <pre>import pandas as pd M1=pd.Series([45,65,24,89],index=['term1','term2','term3','term4'])</pre> <p><i>½ mark for import statement</i> <i>½ mark for usage of Series ()</i> <i>½ mark for stating index as a list</i> <i>½ mark for creating object m1</i></p> <p style="text-align: center;">OR</p> <p>(B)</p> <pre>city={'AGRA':4, 'JHANSI':3, 'MATHURA':5, 'NOIDA':4} kv=mypandas.Series(city)</pre> <p><i>1 mark for each correct python statement</i></p>	2
23	<p>E-waste, or electronic waste, refers to discarded electrical and electronic devices such as computers, mobiles, TVs, and other gadgets that are no longer in use or have reached the end of their useful life.</p> <p>One solution to reduce e-waste is recycling old electronic products properly. This means collecting used devices and sending them to authorized recycling centers, where valuable components and materials can be recovered and hazardous parts can be safely disposed of, instead of dumping them in landfills.</p> <p><i>1 mark for correct definition</i> <i>1 mark for correct solution</i></p>	2 (1+1)
24	<pre>import pandas as pd Data= [[501,'Aromal','Commerce'], [502,'Greeshma','Science'], [503,"Preeti",'Humanities'], [504,' Rupin ','Arts']] Toppers=pd.DataFrame (Data, columns=['Rno','Name', 'Stream']) print(Toppers)</pre> <p><i>Identify at least 4 errors, ½ mark for each error correction</i></p>	2

25	<p>A webpage is a digital document or page that is a part of a website and can be viewed in a web browser. It is typically written in HTML and may include text, images, links, and multimedia. Each webpage has a unique web address (URL).</p> <table border="1"> <thead> <tr> <th>Basis</th><th>Static Webpage</th><th>Dynamic Webpage</th></tr> </thead> <tbody> <tr> <td>Content</td><td>Fixed; does not change unless edited</td><td>Changes based on input, time, user interaction, etc.</td></tr> <tr> <td>Creation</td><td>Created using HTML only</td><td>Created using server-side scripting (e.g., PHP, ASP, JSP) along with HTML</td></tr> <tr> <td>Interactivity</td><td>No real-time interactivity</td><td>Interactive/content can change in real time</td></tr> <tr> <td>Example</td><td>About Us, Contact pages</td><td>Shopping cart, user profiles, news feeds</td></tr> </tbody> </table> <p><i>1 mark for defining webpage</i> <i>1 mark for at least 1 difference</i></p> <p style="text-align: center;">OR</p> <p>A web browser is a software application that allows users to access, view, and interact with webpages on the internet. It translates HTML and other web technologies into the multimedia content we see on websites.</p> <p>Two commonly used web browsers are:</p> <ul style="list-style-type: none"> • Google Chrome • Mozilla Firefox <p><i>1 mark for defining web browser</i> <i>½ mark each for correct name of web browsers</i></p>	Basis	Static Webpage	Dynamic Webpage	Content	Fixed; does not change unless edited	Changes based on input, time, user interaction, etc.	Creation	Created using HTML only	Created using server-side scripting (e.g., PHP, ASP, JSP) along with HTML	Interactivity	No real-time interactivity	Interactive/content can change in real time	Example	About Us, Contact pages	Shopping cart, user profiles, news feeds	2
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26	<p>SELECT DAYNAME('2025-12-25'); SELECT INSTR('Best of India', 'India');</p> <p><i>1 mark each for correct query</i></p>	2															
27	<ul style="list-style-type: none"> • Eye Strain: Staring at the smartphone screen for long periods can cause digital eye strain, leading to dryness, irritation, and blurred vision. 	2															

	<ul style="list-style-type: none"> • Poor Posture: Excessive mobile use often causes hunching or bending, which can result in neck and back pain ("text neck"). • Sleep Problems: Using the phone late at night, especially before sleeping, can disturb sleep cycle due to blue light emission. • Mental Health Issues: Overuse can lead to anxiety, depression, and addiction-like behaviors. • Reduced Physical Activity: Spending too much time on the phone reduces outdoor play and exercise, impacting overall health. • Hearing Issues: Listening to loud music or calls through earphones for long periods can damage hearing. • Decreased Social Interaction: Excessive usage reduces face-to-face interaction with family and friends. • Risk of Accidents: Using phone while walking or driving increases chances of accidents. <p><i>1 mark each for correct point</i></p>	
28	<p>(A) Score Result</p> <p>0 75 pass</p> <p>1 94 pass</p> <p>2 67 fail</p> <p style="text-align: center;">OR</p> <p>(B) nums</p> <p>2 3</p> <p>3 4</p>	2

Q	Section-C (4 x 3 = 12 Marks)	Mark
29	<p>i) proprietary software or closed-source software</p> <p><i>1 mark for correct answer</i></p> <p>ii) IPR stands for Intellectual Property Rights.</p> <p>IPR are legal rights given to creators or owners of intellectual property such as inventions, literary and artistic works, designs, symbols, and software.</p>	3 (1+2)

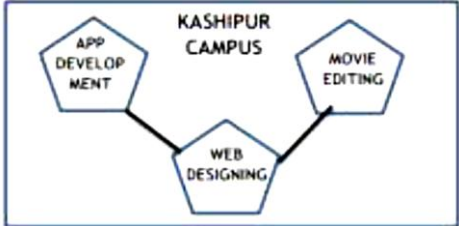
	<p>IPR is important because it prevents unauthorized use or copying, helps creators earn recognition or financial benefits, encourages innovation, and protects against unfair competition.</p> <p><i>1 mark for defining IPR</i></p> <p><i>1 mark for correct reason</i></p>																																					
30	<p>(A) Item Price</p> <table><tr><td>0</td><td>PEN</td><td>25</td></tr><tr><td>1</td><td>PENCIL</td><td>10</td></tr><tr><td>2</td><td>ERASER</td><td>5</td></tr><tr><td>3</td><td>SCALE</td><td>20</td></tr></table> <table><tr><td></td><td>Item</td><td>Price</td></tr><tr><td>0</td><td>PEN</td><td>25</td></tr><tr><td>1</td><td>PENCIL</td><td>10</td></tr></table> <table><tr><td></td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>Item</td><td>PEN</td><td>PENCIL</td><td>ERASER</td><td>SCALE</td></tr><tr><td>Price</td><td>25</td><td>10</td><td>5</td><td>20</td></tr></table> <p><i>1 mark for each correct output of each print statement</i></p> <p>OR</p> <p>(B)</p> <p>a 99.0</p> <p>b 76.0</p> <p>c NaN</p> <p>d NaN</p> <p>e 73.0</p> <p>g NaN</p> <p>k NaN</p> <p>dtype: float64</p> <p>a 178</p> <p>b 112</p> <p>e 46</p> <p>g 90</p> <p>k 156</p>	0	PEN	25	1	PENCIL	10	2	ERASER	5	3	SCALE	20		Item	Price	0	PEN	25	1	PENCIL	10		0	1	2	3	Item	PEN	PENCIL	ERASER	SCALE	Price	25	10	5	20	3
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	dtype: int64 c 30 d 40 e 50 dtype: int64 <i>1 mark for each correct output of each print statement</i>	
31	(i) CREATE TABLE EMPLOYEES (EmployeeID INT PRIMARY KEY, EmpName VARCHAR(50), HireDate DATE, Salary_in_Lacs FLOAT(4,2)); (ii) INSERT INTO EMPLOYEES (EmployeeID, EmpName, HireDate, Salary_in_Lacs) VALUES (101, 'Ravi Kumar', '2015-06-01', 1.70);	3 (2+1)
32	i. SELECT CLASS, COUNT(*) FROM STUDENT GROUP BY CLASS; ii. SELECT MIN(PRICE), MAX(PRICE) FROM BOOK; iii. SELECT S_NAME, TITLE FROM STUDENT, BOOK WHERE STUDENT.S_ID=BOOK.S_ID; <p style="text-align: center;">OR</p> i. SELECT UCASE(T_NAME) FROM TEACHER; ii. SELECT LEFT(NAME,4) FROM SUBJECT; iii. SELECT T_NAME, NAME FROM TEACHER, SUBJECT WHERE TEACHER.T_ID=SUBJECT.T_ID; <i>1 mark for each correct query</i>	3

Q	Section-D (2 x 4 = 8 Marks)	Mark
33	import matplotlib.pyplot as plt name=['vishal','ajay','nirav','khyati','mitali'] marks=[65,58,62,57,66] plt.bar(name,marks) plt.xlabel("Name")	4

	<pre>plt.ylabel("Marks") plt.title("marks of pre board") plt.savefig("marks of pre board.png") plt.show()</pre> <p><i>½ mark for each correct statement [Combined 1/2 mark for statement 2 &3]</i></p>																			
34	<p>Consider the following table Medicine and answer the questions.</p> <ul style="list-style-type: none">i. SELECT NAME FROM MEDICINE ORDER BY PRICE DESC;ii. SELECT LENGTH(NAME) FROM MEDICINE;iii. SELECT NAME, MONTHNAME(EXP_DATE) FROM MEDICINE;iv. SELECT SUM(PRICE) FROM MEDICINE; <p><i>1 mark for each correct query</i></p> <p style="text-align: center;">OR</p> <p>Write the output of the following SQL Queries on the basis of table Medicine.</p> <p>i) SELECT MOD(PRICE,10) FROM MEDICINE;</p> <table><tr><td>Price</td></tr><tr><td>0</td></tr><tr><td>3</td></tr><tr><td>0</td></tr><tr><td>0</td></tr><tr><td>0</td></tr></table> <p>ii) SELECT MID(NAME,5) FROM MEDICINE;</p> <table><tr><td>Name</td></tr><tr><td>CETAMOL</td></tr><tr><td>ICILLIN</td></tr><tr><td>H SYRUP</td></tr><tr><td>LIN</td></tr><tr><td>ROFEN</td></tr></table> <p>iii) SELECT RIGHT(NAME,3) FROM MEDICINE;</p> <table><tr><td>Name</td></tr><tr><td>MOL</td></tr><tr><td>LIN</td></tr><tr><td>RUP</td></tr><tr><td>LIN</td></tr><tr><td>FEN</td></tr></table> <p>iv) SELECT COUNT(*) FROM MEDICINE;</p> <p>5</p>	Price	0	3	0	0	0	Name	CETAMOL	ICILLIN	H SYRUP	LIN	ROFEN	Name	MOL	LIN	RUP	LIN	FEN	4
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	1 mark for each correct output	
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Q	Section-E (3 x 5 = 15 Marks)	Mark
35	<p>a) Movie editing, Because maximum number of computers</p> <p>b) Hub/Switch.</p> <p>c) Ethernet cable</p>  <p>d) Repeater is not required between the blocks as the distances are less than 100 mts.</p> <p>e) VoIP</p> <p>1 mark for each correct answer</p>	5
36	<p>i. book.head(2)</p> <p>ii. book.loc[:, 'Author']</p> <p>iii. book['PUBLISHER']=list of appropriate publisher names</p> <p>iv. book.loc[:, 102:103]</p> <p>v. book=book.rename({'Year': "Year of Publish ", axis='columns'})</p> <p>1 mark for each correct answer</p>	5
37	<p>Write suitable SQL query for the following:</p> <p>i. SELECT SUBSTR('PRE-BOARD EXAMINATION',11,4);</p> <p>ii. SELECT TRIM(' Commerce ');</p> <p>iii. SELECT ROUND(123.456,2);</p> <p>iv. SELECT POWER(100,3);</p> <p>v. SELECT LENGTH("INFORMATICS PRACTICES");</p> <p>1 mark for each correct query</p> <p style="text-align: center;">OR</p> <p>What is the use of following functions in SQL? Also give one example.</p> <p>i. MONTH()- It returns the month in numeric form from the date.</p> <p>SELECT MONTH(NOW());</p> <p>Output:</p>	5

	<p>12</p> <p>ii. SUBSTRING () -Returns a substring of size n starting from the specified position (pos) of the string. If n is not specified, it returns the substring from the position pos till end of the string.</p> <p>SELECT SUBSTRING("Informatics", 3, 4);</p> <p>Output:</p> <p>form</p> <p>iii. COUNT()-Returns the number of values in the specified column ignoring the NULL values.</p> <p>Appropriate example</p> <p>iv. MOD()- Returns the remainder after dividing number</p> <p>SELECT MOD(21, 2);</p> <p>1</p> <p>v. RTRIM()- Returns the given string after removing trailing white space characters.</p> <p>SELECT RTRIM("PEN ");</p> <p>PEN</p>	
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