

KENDRIYA VIDYALAYA SANGATHAN ERNAKULAM REGION

PRE-BOARD EXAMINATION 2025-26

INFORMATICS PRACTICES (065)- MARKING SHCHEME

Time Allowed: 3 Hrs.

Maximum Marks:70

Q No	Section-A (21 x 1 = 21 Marks)	Marks
1.	True	1
2.	(B) 25.8	1
3.	(B) Plagiarism	1
4.	(B) pd.Series()	1
5.	(C) Repeater	1
6.	(C) Returns 12.78	1
7.	(C) Trademark	1
8.	(D) Integer	1
9.	(A) Alternate Key	1
10.	(B) Modem	1
11.	(D) NOW()	1
12.	(B) 20 40 60	1
13.	(B) Spamming	1
14.	(C) SELECT	1
15.	(A) df.iloc[:, 0:2]	1
16.	(D) Star Topology	1
17.	(C) To convert all characters in a string to uppercase.	1
18.	(B) df.count()	1
19.	(C) GNU GPL (General Public License)	1
20.	C. A is true R is false	1
21.	D. A is false but R is true	1
Section-B (7X2 = 14 Marks)		
22.	<p>(A) Data visualization is the graphical representation of information and data. It involves using visual elements like charts, graphs, and maps to present complex datasets in an understandable and accessible way.</p> <p>One type of plot that can be created using the Matplotlib library is a Line Plot.</p> <p style="text-align: center;">OR</p> <p>(B)</p>	2

	Series	DataFrame	
	One- dimensional	Two- dimensional	
	Series elements must be homogenous.	Can be heterogeneous.	
	Immutable(size cannot be changed).	Mutable(size can be changeable).	
	Element wise computations.	Column wise computations.	
	Functionality is less.	Functionality is more.	
	Alignment not supported.	Alignment is supported.	
23.	<p>Digital footprints are the data trails left by users while performing activities online. An active digital footprint is created intentionally when a user posts or fills a form, whereas a passive digital footprint is created unknowingly when data is collected in the background.</p>		2
24.	<pre>import pandas as PA sales = [15000, 18000, 12000, 20000] quarters = ['Q1', 'Q2', 'Q3', 'Q4'] s = PA. Series(sales, index=quarters) print(s)</pre>		2
25.	<p>(A) The World Wide Web (WWW) is a system of interlinked hypertext documents and other resources, connected by hyperlinks and accessed via the Internet Two common protocols for transferring data on the WWW are HTTP (Hypertext Transfer Protocol), which is the foundation for data communication, and HTTPS (Hypertext Transfer Protocol Secure)</p> <p style="text-align: center;">OR</p> <p>(B) The full form of URL is Uniform Resource Locator. It is the unique address that identifies a resource, such as a web page, on the internet. Two essential components of a URL The two essential components of a URL are the protocol and the domain name. For example, in the URL https://www.example.com, https:// is the protocol and www.example.com is the domain name.</p>		2
26.	<p>i. SELECT SUBSTRING('INFORMATION TECHNOLOGY', -4); OR SELECT RIGHT('INFORMATION TECHNOLOGY', 4);</p>		2

	ii. <code>SELECT LENGTH('Cyber Security');</code>	
27.	<p>E-waste refers to discarded electronic devices like computers and phones.</p> <p>Two ways to responsibly manage e-waste</p> <ul style="list-style-type: none"> • Reuse and repair: Instead of immediately throwing away old electronics, give them a second life. • Proper recycling: When an item is no longer functional, ensure it's recycled correctly through proper channels. 	2
28.	<p>(A) A B C 0 1 4 5 1 2 5 7 2 3 6 9</p> <p style="text-align: center;">OR</p> <p>(B) a 100 b 200 dtype: int64</p>	2
Section-C (4X3 = 12 Marks)		
29.	<p>I. Intellectual property (IP) refers to creations of the mind, such as inventions, literary works, and designs, which are protected by law to grant the creator exclusive rights for financial or economic benefit. A patent is a specific type of IP that grants an inventor exclusive rights for a new invention, preventing others from making, using, or selling it without permission for a set period</p> <p>II. Trademark</p> <p>III. Copyright infringement is a legal violation that involves the unauthorized use of a copyrighted work. Infringement can still occur even if the source is credited.</p>	3
30.	<p>(A)</p> <pre>import pandas as pd data = { 'ID': [101, 102, 103], 'Name': ['Ankit', 'Neha', 'Ravi'], 'Salary': [55000, 62000, 48000] } df = pd.DataFrame(data) print(df)</pre> <p style="text-align: center;">OR</p> <p>(B)</p> <pre>import pandas as even_numbers = [2, 4, 6, 8, 10] S1 = pd.Series(even_numbers) print(S1[S1 > 6])</pre>	3

31.	<p>i. CREATE TABLE STUDENTS (Stu_ID NUMERIC, Stu_Name VARCHAR(30), City VARCHAR(20), DOB DATE);</p> <p>ii. INSERT INTO STUDENTS (Stu_ID, Stu_Name, City, DOB) VALUES (105, 'Simran', 'Delhi', '2007-08-15');</p>	3						
32.	<p>(A)</p> <p>I. SELECT Category, AVG(Price) FROM PRODUCTS GROUP BY Category;</p> <p>II. SELECT ProductName FROM PRODUCTS WHERE Price BETWEEN 1000 AND 5000 ORDER BY ProductName DESC;</p> <p>III. SELECT ProductName, SUBSTRING(Category, 1, 3) FROM PRODUCTS; OR SELECT ProductName, LEFT(Category, 3) FROM PRODUCTS;</p> <p style="text-align: center;">OR</p> <p>(B)</p> <p>I. Pid can be considered as Primary Key because it uniquely identifies each product in the table.</p> <p>II. ALTER TABLE STOCK ADD Discount% INT;</p> <p>III.</p> <table border="1" data-bbox="568 999 1082 1169" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Category</th> <th>Sum(Price)</th> </tr> </thead> <tbody> <tr> <td>IO</td> <td>22300</td> </tr> <tr> <td>NW</td> <td>5600</td> </tr> </tbody> </table>	Category	Sum(Price)	IO	22300	NW	5600	3
Category	Sum(Price)							
IO	22300							
NW	5600							
Section-D (2X4 = 8 Marks)								
33.	<pre>import matplotlib.pyplot as plt # Statement-1 products = ['A', 'B', 'C'] sales = [150, 220, 180] plt.barh(products, sales) # Statement-2 plt.xlabel('Product') plt.ylabel('Sales (Units)') plt.title('Product Sales Comparison') plt.yticks([100,200,300]) # Statement-3 plt.savefig('product.jpg') # Statement-4 plt.show()</pre>	4						
34.	<p>(A)</p> <p>I. SELECT RollNo, Name FROM STUDENT_GRADES WHERE Grade = 'A';</p> <p>II. SELECT Name, DAYNAME(Date_of_Test) FROM STUDENT_GRADES;</p>	4						

III.SELECT LOWER(Name), LENGTH(Name) FROM STUDENT_GRADES;
 IV.SELECT COUNT(DISTINCT Grade) FROM STUDENT_GRADES;

OR

(B)

I

EmpName
Riya
Kunal
Meera

II

Dept	count(Salary)
Sales	1
Marketing	2

III

EmpName	Round(Salary/10000,1)
Kunal	3
Meera	3

IV

MID(EmpName,2,3)
eer

Section-E (3X5 = 15 Marks)

35.	<p>(I) Network Type: LAN (Local Area Network). Justification: The distance between the blocks is only 150 meters, and the network is confined to a single complex.</p> <p>(II) a star topology</p> <p>(III) Switch.</p> <p>(IV) Unguided Media: Microwave or Radio Waves.</p> <p>(V) A Dynamic website is recommended because it allows employees to login and check performance interactively.</p>	5
36.	<p>i. print(df_products.iloc[2]['Product_Name']) OR print(df_products.iloc[2, 1])</p> <p>ii. df_products['Quantity'] = [50, 40, 25, 30]</p> <p>iii. df_products = df_products.drop(0, axis=0)</p> <p>OR df_products.drop(0, axis=0, inplace=True)</p>	5

	<p>iv. print(df_products[df_products['Price'] > 1000.0][['Product_Name', 'Price']])</p> <p>OR print(df_products.loc[df_products['Price'] > 1000.0, ['Product_Name', 'Price']])</p> <p>v. print(df_products.shape)</p>	
37.	<p>(A)</p> <p>I. SELECT SUBSTRING('Information', 3, 4); OR SELECT MID('Information', 3, 4);</p> <p>II. SELECT COUNT(EmployeeID) FROM Employees; OR SELECT COUNT(*) FROM Employees;</p> <p>III. SELECT YEAR(DateOfJoining) FROM Employees;</p> <p>IV. SELECT LTRIM(Address) FROM Customers;</p> <p>V. SELECT MOD(10, 3);</p> <p style="text-align: center;">OR</p> <p>(B)</p> <p>I. SELECT ROUND(AVG(Marks)) FROM Students;</p> <p>II. SELECT ROUND (234.6789,3);</p> <p>III. SELECT INSTR('Programming', 'ing');</p> <p>IV. SELECT MONTHNAME(DATE(NOW())) ;</p> <p>V. SELECT DISTINCT Category FROM Products;</p>	5