

PM SHRI KV BANTALAB  
SESSION 2023-24  
AUTUMN BREAK HOLIDAY HOMEWORK  
CLASS: XII INFORMATICS PRACTICES

1. Solve following 5 sample papers in notebook.
2. Complete your project and submit the same after vacations.

**KENDRIYA VIDYALAYA SANGATHAN, ERNAKULAM REGION**  
**INFORMATICS PRACTICES (065)**  
**SAMPLE QUESTION PAPER - Class XII**

Max Marks: 70

Time: 3 hrs

**General Instructions:**

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only.

<b>SECTION A</b>				
1	Beauty Lines Fashion Inc. is a fashion company with design unit and market unit 135 m away from each other. The company recently connected their LANs using Ethernet cable to share the stock related information. But after joining their LANs, they are not able to share the information due to loss of signal in between. Which device out of the following should you suggest to be installed for a smooth communication? i. Repeater ii. Hub iii. Bridge iv. Switch	1		
2	Which of the following is a type of cybercrime? i. Stealing of money from a purse ii. Hitting or beating someone iii. Making damage to furniture in classroom iv. Stealing of user name and password and misusing others Email	1		
3	What is not an example of e-waste? i. Unused Mobile ii. Unused old Keyboard iii. Unused old computers iv. Empty cola cans	1		
4	Find the output of the following SQL command: <b>select mid('Informatics Practices', -9);</b>	1		
5	If a column "Mark" in student table contains the following data <table border="1" style="margin-left: 20px; margin-top: 10px;"> <tr> <td style="text-align: center;"><b>MARK</b></td> </tr> <tr> <td style="text-align: center;">22</td> </tr> </table>	<b>MARK</b>	22	1
<b>MARK</b>				
22				

	<table border="1"> <tr><td>NULL</td></tr> <tr><td>21</td></tr> <tr><td>23</td></tr> </table> <p>Predict the output of the following command:</p> <p>SELECT AVG (MARK) FROM student;</p> <ol style="list-style-type: none"> <li>22</li> <li>16.5</li> <li>NULL</li> <li>66</li> </ol>	NULL	21	23	
NULL					
21					
23					
6	<p>'F' in FOSS stands for:</p> <ol style="list-style-type: none"> <li>Force</li> <li>Free</li> <li>Fibre</li> <li>First</li> </ol>	1			
7	<p>Which SQL statement is used to display all the data from product table in the decreasing order of price?</p> <ol style="list-style-type: none"> <li>SELECT * FROM PRODUCT;</li> <li>SELECT * FROM PRODUCT ORDER BY PRICE;</li> <li>SELECT * FROM PRODUCT ORDER BY PRICE DESC;</li> <li>SELECT * FROM PRODUCT ORDER BY DESC;</li> </ol>	1			
8	<p>The number of rows in a relation in SQL is known as</p> <ol style="list-style-type: none"> <li>cardinality</li> <li>degree</li> <li>tuple</li> <li>attribute</li> </ol>	1			
9	<p>Which among the following is a DDL command in SQL?</p> <ol style="list-style-type: none"> <li>SELECT</li> <li>INSERT</li> <li>ALTER</li> <li>UPDATE</li> </ol>	1			
10	<p>To display last three rows of a series object 'S', you may write:</p> <ol style="list-style-type: none"> <li>S.Head()</li> <li>S.Tail(3)</li> <li>S.Head(3)</li> <li>S.tail()</li> </ol>	1			
11	<p>Which of the following statement will import matplotlib.pyplot library?</p> <ol style="list-style-type: none"> <li>Import pyplot as pd</li> <li>import matplotlib as py</li> <li>import matplotlib.pyplot as plt</li> <li>All of these</li> </ol>	1			
12	<p>Which of the following can be used to specify the data while creating a DataFrame?</p> <ol style="list-style-type: none"> <li>Series</li> <li>List of Dictionaries</li> <li>Structured ndarray</li> </ol>	1			

	iv. All of these					
13	_____ protocol allows us to have voice call (telephone service) over the Internet	1				
14	Write the output of the following SQL command: SELECT ROUND(199.2936, 1);	1				
15	Removal of parts containing the valuable items in E waste management is? i. Refurbishment and reuse ii. Dismantling iii. Recycling iv. None of these	1				
16	-----is the trail of data we leave behind when we visit any website (or use any online application or portal) to fill-in data or perform any transaction. i. Offline phishing ii. Offline footprint iii. Digital footprint iv. Digital phishing	1				
Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True						
17	<b>Assertion (A):</b> - The Internet is a collection of interconnected computer networks linked by transmission medium such as copper wires, fiber-optic cables, wireless connections etc  <b>Reasoning (R):-</b> World wide web is a collection of interconnected documents	1				
18	<b>Assertion (A):-</b> DataFrame has both a row and column index.  <b>Reasoning (R):</b> - A DataFrame is a two-dimensional labelled data structure like a table of MySQL.	1				
<b>SECTION B</b>						
19	Distinguish between LAN and WAN. OR Explain the function of the following network devices: a. Modem b. Firewall	2				
20	Write SQL commands: - a. To print the length of the string "Happy Holidays" b. To print the string "Happy Holidays" in capital letters.	2				
21	Differentiate between DDL and DML commands	2				
22	Consider a given Series ,S1 with subject and marks where subject is index. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Subject</td> <td>Marks</td> </tr> <tr> <td>ENG</td> <td>76</td> </tr> </table>	Subject	Marks	ENG	76	2
Subject	Marks					
ENG	76					

	<table border="1"> <tr> <td>HINDI</td> <td>88</td> </tr> <tr> <td>MATH</td> <td>60</td> </tr> <tr> <td>SCI</td> <td>85</td> </tr> <tr> <td>SST</td> <td>81</td> </tr> </table> <p>Write a program in Python Pandas to create the series.</p>	HINDI	88	MATH	60	SCI	85	SST	81																					
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23	<p>Write down different steps of E waste Disposal.</p> <p>OR</p> <p>Mention any four net etiquettes.</p>	2																												
24	<p>What will be the output of the following code:</p> <pre>&gt;&gt;&gt;import pandas as pd &gt;&gt;&gt;A=pd.Series(data=[12,20,5,50]) &gt;&gt;&gt;print(A&gt;10)</pre>	2																												
25	<p>Carefully observe the following code:</p> <pre>import pandas as pd Sales1={'S1':5000,'S2':8000,'S3':12000,'S4': 18000} Sales2={'A' :13000,'B':14000,'C':12000} totSales={1:Sales1,2:Sales2} df=pd.DataFrame(totSales) print(df)</pre> <p>Answer the following:</p> <ol style="list-style-type: none"> <li>List the index of the DataFrame df</li> <li>List the column names of DataFrame df.</li> </ol>	2																												
<b>SECTION C</b>																														
26	<p>Consider the table SPORTS given below:</p> <table border="1"> <thead> <tr> <th>SCode</th> <th>SportName</th> <th>Noofplayers</th> <th>Coachname</th> </tr> </thead> <tbody> <tr> <td>S001</td> <td>Cricket</td> <td>21</td> <td>Rahul Dravid</td> </tr> <tr> <td>S002</td> <td>Football</td> <td>25</td> <td>Roshan Lal</td> </tr> <tr> <td>S003</td> <td>Hockey</td> <td>40</td> <td>Sardar Singh</td> </tr> <tr> <td>S004</td> <td>Cricket</td> <td>19</td> <td>Chetan Sharma</td> </tr> <tr> <td>S005</td> <td>Archery</td> <td>12</td> <td>Limbaram</td> </tr> <tr> <td>S006</td> <td>Shooting</td> <td>17</td> <td>Deepika Kumari</td> </tr> </tbody> </table> <p>a. Give output of following SQL command Select Coachname from SPORTS Order By Coachname desc;</p> <p>Write SQL commands to:</p> <ol style="list-style-type: none"> <li>Write SQL command to display the total number of players in each sports.</li> </ol>	SCode	SportName	Noofplayers	Coachname	S001	Cricket	21	Rahul Dravid	S002	Football	25	Roshan Lal	S003	Hockey	40	Sardar Singh	S004	Cricket	19	Chetan Sharma	S005	Archery	12	Limbaram	S006	Shooting	17	Deepika Kumari	3
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	c. Write SQL command to display sports name where the total number of players is more than 25																																																									
27	Write a Python code to create a DataFrame with appropriate column headings from the list given below:  [[101,'Ram',2500],[102,'Ann',5000],[103,'Sam',8000],[104,'Manu',4000]]	3																																																								
28	Consider the data frame and answer the questions  <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>TCS</th> <th>Wipro</th> <th>Infosys</th> <th>IP</th> </tr> </thead> <tbody> <tr> <td>Qtr1</td> <td>80</td> <td>88</td> <td>66</td> <td>74</td> </tr> <tr> <td>Qtr2</td> <td>98</td> <td>67</td> <td>75</td> <td>98</td> </tr> <tr> <td>Qtr3</td> <td>77</td> <td>93</td> <td>89</td> <td>92</td> </tr> <tr> <td>Qtr4</td> <td>65</td> <td>50</td> <td>40</td> <td>80</td> </tr> </tbody> </table> <p>i) Write python code to display the profit rate of all quarters of Infosys company. ii) Write python code to display the profit rate of Qtr3 of all companies iii) Write the output of the python code print(DF1.iat[1,1])</p>		TCS	Wipro	Infosys	IP	Qtr1	80	88	66	74	Qtr2	98	67	75	98	Qtr3	77	93	89	92	Qtr4	65	50	40	80	3																															
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29	What is IT Act 2000? What is its importance? OR What do you understand by plagiarism? Why is it a punishable offence? Mention any two ways to avoid plagiarism.	3																																																								
30	Identify the SQL functions to perform the following: a. To print the name of the month of a specified date. b. To print the date part of a specified date. c. What will be the output of the following SQL Statements: i. Select lower("DATA for All"); ii. Select instr("Wear formal uniform", "form");  OR  Differentiate between where and having clause with the help of suitable example	3																																																								
<b>SECTION D</b>																																																										
31	Consider the following table STUDENT. Write SQL commands for the following statements. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Rollno</th> <th>Name</th> <th>Dob</th> <th>Class</th> <th>Gender</th> <th>Hobby</th> <th>Fees</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>BHAVYA</td> <td>2001-01-02</td> <td>11</td> <td>F</td> <td>Painting</td> <td>100</td> </tr> <tr> <td>1002</td> <td>AARDRA</td> <td>2002-10-21</td> <td>1</td> <td>F</td> <td>Drama</td> <td>200</td> </tr> <tr> <td>1003</td> <td>AJITH</td> <td>2004-12-11</td> <td>8</td> <td>M</td> <td>Cooking</td> <td>150</td> </tr> <tr> <td>1004</td> <td>ARJUN</td> <td>2001-02-22</td> <td>10</td> <td>M</td> <td>Cooking</td> <td>250</td> </tr> <tr> <td>1005</td> <td>KAVYA</td> <td>2005-10-12</td> <td>8</td> <td>F</td> <td>Sports</td> <td>100</td> </tr> <tr> <td>1006</td> <td>ANAND</td> <td>2000-02-01</td> <td>1</td> <td>M</td> <td>Drama</td> <td>120</td> </tr> <tr> <td>1007</td> <td>ATHUL</td> <td>2006-10-11</td> <td>6</td> <td>M</td> <td>Sports</td> <td>150</td> </tr> </tbody> </table>	Rollno	Name	Dob	Class	Gender	Hobby	Fees	1001	BHAVYA	2001-01-02	11	F	Painting	100	1002	AARDRA	2002-10-21	1	F	Drama	200	1003	AJITH	2004-12-11	8	M	Cooking	150	1004	ARJUN	2001-02-22	10	M	Cooking	250	1005	KAVYA	2005-10-12	8	F	Sports	100	1006	ANAND	2000-02-01	1	M	Drama	120	1007	ATHUL	2006-10-11	6	M	Sports	150	5
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1008	NEERAJA	2003-11-21	9	F	Sports	100
1009	REHNA	2003-08-07	8	F	Painting	NULL
1010	VAISAKH	2001-12-11	10	M	Cooking	120

- To display details of all the students in the descending order of their Name.
- To print the average fee for each hobby
- To increase the fees of Cooking by 50 Rs
- To store the fees of hobbies as 100 where fee is not available
- To display the name of students who were born after '01-01-2004'

OR

Explain the following functions with examples:

- SUBSTRING()
- POWER()
- DAYNAME()
- LTRIM()
- LENGTH()

32

ABC company is working in 4 blocks- A, B, C and D. Following table shows the distance between blocks and the number of computers in each of the blocks. The company is planning to form a network of these blocks.

**Center to center distances between various blocks**

Block A to Block B	50 m
Block B to Block C	150 m
Block C to Block D	25 m
Block A to Block D	170 m
Block B to Block D	125 m
Block A to Block C	90 m

**| Number of Computers**

Block A	25
Block B	50
Block C	125
Block D	10

- Suggest a cable layout of connections between the blocks.
- Suggest the most suitable place (i.e. block) to house the server of this organisation with a suitable reason.

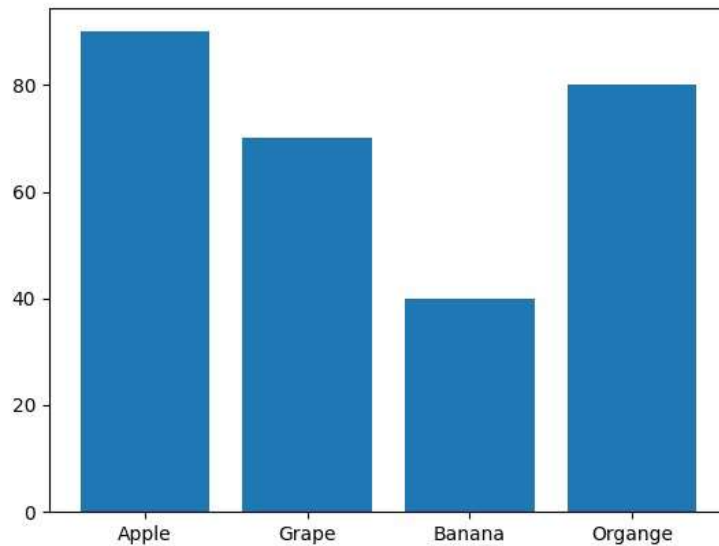
5

- iii. Suggest the placement of the following devices with justification  
 (a) Repeater  
 (b) Hub/Switch
- iv. The organization is planning to link its front office situated in the city in a hilly region where cable connection is not feasible, suggest an economic way to connect it with reasonably high speed?
- v. The organisation is planning to link its sale counter situated in various parts of the same city, which type of network out of LAN, MAN or WAN will be formed?  
 Justify your answer

33

Write Python code to plot a bar chart as shown below:

5



Also give suitable python statement to save this chart.

OR

Write a python program to plot a line chart based on the given data

Days=[1,2,3,4]

Wages in thousands=[40,42,38,44]

**SECTION E**

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Consider the given table Result :-

1+1+2

Rollno	Name	Class	DOB	Gender	City	Marks
1	Nanda	X	12-10-1998	F	Delhi	56
2	Saurabh	XI	24-12-1994	M	Chennai	45
3	Sanal	XII	15-08-2003	M	Delhi	66
4	Rekha	X	11-09-2004	F	Mumbai	81
5	Neha	XII	05-06-2006	F	Chennai	77



	<p>i. Write SQL commands to :</p> <p>ii. Display the minimum and maximum marks obtained by female students</p> <p>iii. Display different Cities(without repetition) available in table</p> <p>iv. Display the average mark obtained by students of each city</p> <p style="text-align: center;"><b>OR (Option for part iii only)</b></p> <p>Display the class wise total of marks obtained by students</p>																					
35	<p>Consider the following DataFrame SPORTS</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th><b>ID</b></th> <th><b>NAME</b></th> <th><b>GENDER</b></th> </tr> </thead> <tbody> <tr> <td>SD1</td> <td>1</td> <td>ANN</td> <td>F</td> </tr> <tr> <td>SD2</td> <td>2</td> <td>RAM</td> <td>M</td> </tr> <tr> <td>SD3</td> <td>3</td> <td>SITA</td> <td>F</td> </tr> <tr> <td>SD4</td> <td>4</td> <td>RAJ</td> <td>F</td> </tr> </tbody> </table> <p>Write commands to :</p> <p>I. Add a new column 'ITEM' to the Dataframe</p> <p>II. Add a new row with values (5, SAM, M):</p> <p>III. Write python code to delete column gender</p> <p style="text-align: center;">OR (Option for part iii only)</p> <p>Write python statement to delete the row with index SD3.</p>		<b>ID</b>	<b>NAME</b>	<b>GENDER</b>	SD1	1	ANN	F	SD2	2	RAM	M	SD3	3	SITA	F	SD4	4	RAJ	F	1+1+2
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**KENDRIYA VIDYALAYA SANGATHAN ERNAKULAM REGION**  
**INFORMATICS PRACTICES (065)**

**SAMPLE PAPER (2022 - 23) - Class XII – SET II**

**Max Marks: 70**

**Time: 3 hrs**

**General Instructions:**

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
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6. Section C has 05 Short Answer type questions carrying 03 marks each.
7. Section D has 03 Long Answer type questions carrying 05 marks each.
8. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part C only.
9. All programming questions are to be answered using Python Language only.

Part - A		
1	<b>Which of these is not a communication channel?</b> a) Satellite b) Microwave c) Radio wave d) Wi-Fi	1
2	The command used to show legends is _____ a. display() b. show() c. legend() d. legends() e.	1
3	Write the output of the following SQL command. select truncate(15.88,1); a. 15.88 b. 15.8 c. 15.9 d. 16	1
4	Given a Pandas series called Marks, the command which will display the last 2 rows is _____.  a. print(Marks.tail(2)) b. print(Marks.Tail(2)) c. print(Marks.tails(3)) d. print(Marks.tail())	1

5	<p>If column "City" contains the data set (CHENNAI, MUMBAI, KOLKATA, CHENNAI, KOLKATA), what will be the output after the execution of the given query?</p> <p style="text-align: center;">SELECT COUNT(DISTINCT City) FROM Customer;</p> <p>i. 4 ii. 5 iii. 3 iv. 2</p>	1
6	<p>Which of the following is not a valid chart type?</p> <p>a. lineplot b. bargraph c. histogram d. statistical</p>	1
7	<p>Which of the following crime(s) is/are covered under cybercrime?</p> <p>i. Stealing brand new hard disk from a shop. ii. Getting into unknown person's social networking account and start messaging on his behalf. iii. Copying some important data from a computer without taking permission from the owner of the data. iv. Working on someone's computer with his/her permission.</p> <p><b>(a) only (ii) (b) (ii) and (iv) (c) (ii) and (iii) (d) (iii) and (iv)</b></p>	1
8	<p>The _____ attribute of a dataframe object returns the row labels of a dataframe.</p> <p>a. index b. columns c. rows d. column</p>	1
9	<p>Which of the following is not a network device :</p> <p>a. Repeater b. hub c. TCP d. switch</p>	1
10	<p>Website stores the browsing activity through _____</p> <p>a. web page b. Cookies c. passwords d. server</p>	1
11	<p>Which of the following is not an aggregate function ?</p> <p>a. Avg() b. Trim() c. Min() d. Sum()</p>	1
12	<p>A _____ is a type of intellectual property consisting of a symbol, word, or words legally registered or established by use as representing a company or product.</p>	1

	(a) Trademark (b) Patent (c) Copyright holder (d) Plagiarism	
13	A Dataframe object is a collection of _____ type of data a. Homogenous b. Heterogenous c. Hybrid d. None of the above	1
14	The practice of taking confidential information from you through an original looking site and URL is known as a. hacking b. fishing c. phishing d. Eavesdropping	1
15	'F' in FOSS stands for: (a) Free (b) Forever (c) Fire (d) Freezing	1
16	Unsolicited commercial email is known as _____ . a. Junk mail b. Spam c. Trash d. Chats	1
	Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True	
17	<b>ASSERTION(A):</b> The practice of taking someone else's work or ideas and passing them off as one's own <b>REASONING( R ):</b> Using graphs, charts, figures, or images without reference of source	1
18	<b>ASSERTION(A):</b> The shape attribute returns the number of rows and number of columns available in data frame. <b>REASONING( R ):</b> The shape attribute return the values in form of list.	1
	Part - B	
19	Write an overview of Indian IT Act OR What can be done to reduce the risk of identity theft? Write any two ways.	2

20	<p>With SQL, how can you return the number of rows not null value in the Project field of Students table</p> <p>(a) SELECT COUNT(Project) FROM STUDENTS;  (b) SELECT COLUMNS(Project) FROM STUDENTS;  (c) SELECT COLUMNS(*) FROM STUDENTS;  (d) SELECT COUNT(*) FROM STUDENTS:</p> <p>Write a short explanation of your answer query.</p>	2																																																	
21	<p>What is the difference between the group by and order by clause when used along with the select statement? Explain with an example.</p>	2																																																	
22	<p>Write a program in Python Pandas to create a series which stores marks of 5 subjects of a student in class 10B of your school.</p> <p>Assume that student is studying class X and have 75,78,82,82,86 marks</p>	2																																																	
23	<p>Give any 2 solutions to manage the E-Waste in the country.  OR  List any two health hazards related to excessive use of technology</p>	2																																																	
24	<p>What will be the output of the following code:</p> <pre>&gt;&gt;&gt;import pandas as pd &gt;&gt;&gt;rollno=[1,2,3,4,5,6] &gt;&gt;&gt;marks=[23,86,74,11,98,75] &gt;&gt;&gt;s=pd.Series(marks,index =rollno) &gt;&gt;&gt;print(s[s&gt;75])</pre>	2																																																	
25	<p>Carefully observe the following code:</p> <pre>import pandas as pd data = [{'a': 10, 'b': 20},{'a': 6, 'b': 32, 'c': 22}] df1 = pd.DataFrame(data) print(df1)</pre> <p><b>Answer the following:</b></p> <p>i. List the index of the DataFrame df1  ii. List the column names of DataFrame df1.</p>	2																																																	
Section C																																																			
26	<p>Ms Malini is working in a school and stores the details of all students in a table SCHOOLDATA.</p> <p style="text-align: center;">TABLE : SCHOOLDATA</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Admno</th> <th>Name</th> <th>Class</th> <th>House</th> <th>Percent</th> <th>Gender</th> <th>Dob</th> </tr> </thead> <tbody> <tr> <td>20150001</td> <td>Aditya Das</td> <td>10</td> <td>Green</td> <td>86</td> <td>Male</td> <td>2006-02-20</td> </tr> <tr> <td>20140212</td> <td>Harsh Sharma</td> <td>11</td> <td>Red</td> <td>75</td> <td>Male</td> <td>2004-10-05</td> </tr> <tr> <td>20090234</td> <td>Swapnil Pant</td> <td>10</td> <td>Yellow</td> <td>84</td> <td>Female</td> <td>2005-11-21</td> </tr> <tr> <td>20130216</td> <td>Soumen Rao</td> <td>9</td> <td>Red</td> <td>91</td> <td>Male</td> <td>2006-04-10</td> </tr> <tr> <td>20190227</td> <td>Rahil Arora</td> <td>10</td> <td>Blue</td> <td>70</td> <td>Male</td> <td>2005-05-14</td> </tr> <tr> <td>20120200</td> <td>Akasha Singh</td> <td>11</td> <td>Red</td> <td>64</td> <td>Female</td> <td>2004-12-16</td> </tr> </tbody> </table>	Admno	Name	Class	House	Percent	Gender	Dob	20150001	Aditya Das	10	Green	86	Male	2006-02-20	20140212	Harsh Sharma	11	Red	75	Male	2004-10-05	20090234	Swapnil Pant	10	Yellow	84	Female	2005-11-21	20130216	Soumen Rao	9	Red	91	Male	2006-04-10	20190227	Rahil Arora	10	Blue	70	Male	2005-05-14	20120200	Akasha Singh	11	Red	64	Female	2004-12-16	3
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	<p>Find the output :</p> <ol style="list-style-type: none"> <li>SELECT LENGTH(NAME) FROM SCHOOLDATA WHERE HOUSE='Red';</li> <li>SELECT LEFT (Gender, 1), Name FROM SCHOOLDATA WHERE YEAR (Dob) = 2005;</li> <li>SELECT MID(UPPER(NAME),5,4) FROM SCHOOLDATA WHERE GENDER = 'Male';</li> </ol>																																																									
27	<p>Write a Python code to create a DataFrame with appropriate column headings from the list given below:</p> <pre>[[ 'Nidhi', 'Business Studies', 95], [ 'Gurjeet', 'Informatics Practices', 97], [ 'Pahul', 'Accountancy', 88], [ 'Divya', 'English', 72]]</pre>	3																																																								
28	<p>Consider the given DataFrame shop</p> <table border="1"> <thead> <tr> <th></th> <th>APPLIANCE_NAME</th> <th>DISCOUNT</th> <th>PRICE</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>REFRIGERATOR</td> <td>15</td> <td>19800</td> </tr> <tr> <td>1</td> <td>SMART PHONE</td> <td>20</td> <td>22300</td> </tr> <tr> <td>2</td> <td>TELEVISION</td> <td>22</td> <td>12900</td> </tr> <tr> <td>3</td> <td>AIR CONDITIONER</td> <td>15</td> <td>23500</td> </tr> <tr> <td>4</td> <td>WASHING MACHINE</td> <td>18</td> <td>18900</td> </tr> <tr> <td>5</td> <td>WASHING MACHINE</td> <td>15</td> <td>20110</td> </tr> </tbody> </table> <p>Write the commands for the following:</p> <ol style="list-style-type: none"> <li>Add a column called Special_Quantity with the following data: [62,26,12,32,48,52,35].</li> <li>Add a new Electronics item named 'TELEVISION', 12 having price 35600.</li> <li>Remove the column Special_Quantity.</li> </ol>		APPLIANCE_NAME	DISCOUNT	PRICE	0	REFRIGERATOR	15	19800	1	SMART PHONE	20	22300	2	TELEVISION	22	12900	3	AIR CONDITIONER	15	23500	4	WASHING MACHINE	18	18900	5	WASHING MACHINE	15	20110	3																												
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29	<p>Sutapa received an email from her bank stating that there is a problem with her account. The email provides instructions and a link, by clicking on which she can logon to her account and fix the problem.</p> <ol style="list-style-type: none"> <li>What is this happening to Sutapa?</li> <li>What immediate action should she take to handle it?</li> <li>Is there any law in India to handle such issues? Discuss briefly.</li> </ol> <p>OR</p> <p>What do you understand by hacking? Why is it a punishable offence? Mention any two ways to avoid hacking.</p>	3																																																								
30	<p>Based on table <b>SCHOOL</b> given here, write suitable SQL queries for the following:</p> <table border="1"> <thead> <tr> <th>CODE</th> <th>TEACHERNAME</th> <th>SUBJECT</th> <th>Category</th> <th>DOJ</th> <th>PDS</th> <th>EXP</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>RAVI SHANKAR</td> <td>ENGLISH</td> <td>PGT</td> <td>12/03/2000</td> <td>24</td> <td>10</td> </tr> <tr> <td>1009</td> <td>PRIYA RAI</td> <td>PHYSICS</td> <td>TGT</td> <td>03/09/1998</td> <td>26</td> <td>12</td> </tr> <tr> <td>1203</td> <td>LISA ANAND</td> <td>ENGLISH</td> <td>TGT</td> <td>09/04/2000</td> <td>27</td> <td>5</td> </tr> <tr> <td>1045</td> <td>YASHRAJ</td> <td>MATHS</td> <td>PGT</td> <td>24/08/2000</td> <td>24</td> <td>15</td> </tr> <tr> <td>1123</td> <td>GANAN</td> <td>PHYSICS</td> <td>TGT</td> <td>16/07/1999</td> <td>28</td> <td>3</td> </tr> <tr> <td>1167</td> <td>HARISH B</td> <td>CHEMIST RY</td> <td>PGT</td> <td>19/10/1999</td> <td>27</td> <td>5</td> </tr> <tr> <td>1215</td> <td>UMESH</td> <td>PHYSICS</td> <td>TGT</td> <td>11/05/1998</td> <td>22</td> <td>16</td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li>Display subject wise highest experience.</li> </ol>	CODE	TEACHERNAME	SUBJECT	Category	DOJ	PDS	EXP	1001	RAVI SHANKAR	ENGLISH	PGT	12/03/2000	24	10	1009	PRIYA RAI	PHYSICS	TGT	03/09/1998	26	12	1203	LISA ANAND	ENGLISH	TGT	09/04/2000	27	5	1045	YASHRAJ	MATHS	PGT	24/08/2000	24	15	1123	GANAN	PHYSICS	TGT	16/07/1999	28	3	1167	HARISH B	CHEMIST RY	PGT	19/10/1999	27	5	1215	UMESH	PHYSICS	TGT	11/05/1998	22	16	3
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- ii. Display category wise lowest experience.
  - iii. Display total number of PGT and TGT teachers
- OR**
- Briefly explain the difference between count() and count(\*) with the help of an example.

Section D

Write the names of SQL functions which will perform the following operations:

- i) To display the current date
- ii) To convert the string in capital letters 'Kendriya'
- iii) To remove spaces from the end of string "Good Morning"
- iv) To display the month from the current date
- v) To compute the power of a number n1 raised to the power n2

OR

Consider the following tables STATIONERY and answer the questions:

Table: STATIONERY

S_ID	Stationery Name	Company	Price
DP01	Dot Pen	ABC	10.50
PL02	Pencil	XYZ	6.00
ER05	Eraser	XYZ	7.50
PL01	Pencil	CAM	5.75
GP02	Gel Pen	ABC	15.00

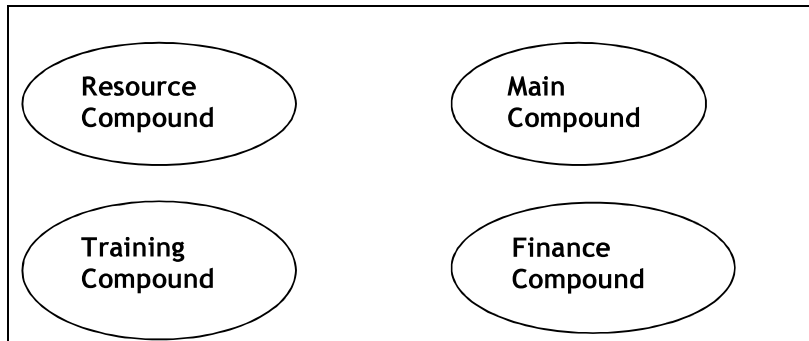
31

5

Write SQL commands using SQL functions to perform the following operations:

- i) Display the stationary name and price after rounding off to zero decimal places.
- ii) Display the occurrence of 'en' in stationary name.
- iii) Display the first four characters of the stationary name.
- iv) Display the names of company after converting to lower case.
- v) Display the length of stationary names

"Learn Together" is an educational NGO. It is setting up its new campus at Jaipur for its web based activities. The campus has 4 compounds as shown in the diagram below:



32

5

Center to center distances between various Compounds as per architectural drawings (in Metre) is as follows :

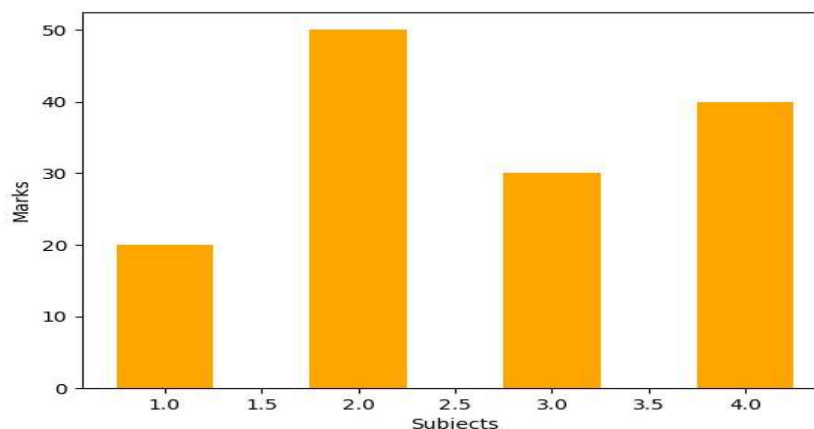
Main Compound to Resource Compound	110 m
Main Compound to Training Compound	115 m
Main Compound to Finance Compound	35 m
Resource Compound to Training Compound	25 m
Resource Compound to Finance Compound	135 m
Training Compound to Finance Compound	100 m

Expected Number of Computers in each Compound is as follows:

Main Compound	5
Resource Compound	15
Training Compound	150
Accounts Compound	20

1. Suggest a cable layout of connections between the compounds.
2. Suggest the most suitable topology of the connection between the wings.
3. Suggest the most suitable place (i.e. compound) to house the server for this NGO. Also, provide a suitable reason for your suggestion.
4. Suggest the placement of the following devices with Justification :
  - (i) Repeater
  - (ii) Hub/Switch
5. The NGO is planning to connect its International office situated in Mumbai, which out of the following wired communication link, you will suggest for a very high speed connectivity?
  - (i) Telephone Analog Line
  - (ii) Optical Fiber
  - (iii) Ethernet Cable

Consider the following graph .Write the code to plot it.



Also give suitable python statement to save this chart.

OR

33

5



Write a python program to plot a line chart based on the given data to depict the changing medal tally between four Houses in school.

House=['Varun', 'Prithvi', 'Agni', 'Trishul']  
 medal=[50,70,90,110]

**SECTION E**

Mukund, a database administrator has designed a database for a clothing sports club. Help him by writing answers of the following questions based on the given table:

Consider the table SPORTS and give the output for the following queries:

StudentNo	Class	Name	Game	Grade
10	7	Sammer	Cricket	B
11	8	Sujit	Tennis	A
12	7	Kamal	Swimming	B
13	7	Venna	Tennis	C
14	9	Archana	Basketball	A
15	10	Arpit	Cricket	A

34

- i. Write a query to display Game in lower case.
  - ii. Write a query to display the lowest class of the sports club.
  - iii. Write a query to count total number of Games with grade A.
- OR (Option for part iii only)

Write a query to count class wise total number of games played

1+1+2

Mr. Ravi, a data analyst has designed the DataFrame **df** that contains data about Car Sales with 'T1', 'T2', 'T3', 'T4', 'T5' as indexes shown below. Answer the following questions:

	Col1	Col2	Col3	Res
T1	62.893165	100.0	60.00	True
T2	94.734483	100.0	59.22	True
T3	49.090140	100.0	46.04	False
T4	38.487265	85.4	58.60	False

35

A. Predict the output of the following python statement:

- i. df.shape
- ii. df[1:3]

B. Write Python statement to display the data of Col3 column of indexes T2 to T4.

**OR (Option for part B only)**

Write Python statement to compute and display the difference of data of Col2 column and Col3 column of the above given Data Frame.

1+1+2

**KENDRIYA VIDYALAYA SANGATHAN, ERNAKULAM REGION**  
**INFORMATICS PRACTICES (065)**  
**SAMPLE QUESTION PAPER - (2022 - 23)**  
**Class XII**

Max Marks: 70

Time: 3 hrs

	<p><b>General Instructions:</b></p> <ol style="list-style-type: none"> <li>1. This question paper contains five sections, Section A to E.</li> <li>2. All questions are compulsory.</li> <li>3. Section A have 18 questions carrying 01 mark each.</li> <li>4. Section B has 07 Very Short Answer type questions carrying 02 marks each.</li> <li>5. Section C has 05 Short Answer type questions carrying 03 marks each.</li> <li>6. Section D has 03 Long Answer type questions carrying 05 marks each.</li> <li>7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part C only.</li> <li>8. All programming questions are to be answered using Python Language only.</li> </ol>	
<b>PART A</b>		
1	<p>Given a Pandas series called S, the command which will display the last 4 rows is _____.</p> <ol style="list-style-type: none"> <li>a. print(S.tail(4))</li> <li>b. print(s.Tail())</li> <li>c. print(s.tails(4))</li> <li>d. print(s.tail(4))</li> </ol>	1
2	<p>_____ are messages that a web server transmits to a web browser so that the web server can keep track of the user's activity on a specific website.</p> <ol style="list-style-type: none"> <li>a. text</li> <li>b. cookies</li> <li>c. email</li> <li>d. chat</li> </ol>	1
3	<p>The trim()function in MySql is an example of_____.</p> <ol style="list-style-type: none"> <li>a. Math function</li> <li>b. Text function</li> <li>c. Date Function</li> <li>d. Aggregate Function</li> </ol>	1
4	<p>The___command can be used to insert a new row in a table in SQL.</p> <ol style="list-style-type: none"> <li>a. add()</li> <li>b. append</li> <li>c. insert into</li> <li>d. alter table.</li> </ol>	1
5	<p>State whether True or False :</p> <ol style="list-style-type: none"> <li>i. Copying and pasting data from internet or other digital resources is ethical.</li> <li>ii. E-waste is very hazardous if not handled carefully.</li> </ol>	1
6	<p>Rohan wants to print the row labels of the dataframe. He should use the _____ attribute of a dataframe.</p>	1

	<ul style="list-style-type: none"> <li>a. column</li> <li>b. columns</li> <li>c. index</li> <li>d. rowname</li> </ul>	
7	<p>Write the output of the following SQL command.</p> <pre>select pow(2,-2);</pre> <ul style="list-style-type: none"> <li>a. -4</li> <li>b. 4</li> <li>c. 0.25</li> <li>d. -0.25</li> </ul>	1
8	<p><b>What is e-waste?</b></p> <ul style="list-style-type: none"> <li>(a) electronic waste</li> <li>(b) environmental waste</li> <li>(c) earth waste</li> <li>(d) energy waste</li> </ul>	1
9	<p>What will be the output of the following code?</p> <pre>mysql&gt;&gt; lcase ('INFORMATICS PRACTICES CLASS 12TH');</pre>	1
10	<p>Which of these is not an example of unguided media?</p> <p>(i) Optical Fibre Cable (ii) Radio wave (iii) Bluetooth (iv) Satellite</p>	1
11	<p>Stealing someone's intellectual work and representing it as your own is known as ____.</p> <ul style="list-style-type: none"> <li>a. Phishing</li> <li>b. Spamming</li> <li>c. plagiarism</li> <li>d. hacking</li> </ul>	1
12	<p>Which of the following is not the correct aggregate functions in SQL.</p> <p>(a) AVERAGE() (b) MAX() (c) COUNT() (d) TOTAL()</p>	1
13	<p>A URL can specify the IP address of the Web _____ that houses a Web page?</p> <ul style="list-style-type: none"> <li>a) server</li> <li>b) client</li> <li>c) e-mail recipient</li> <li>d) None</li> </ul>	1
14	<p>..... are the records and traces that are left behind while internet is used.</p> <ul style="list-style-type: none"> <li>a) Digital data</li> <li>b) Digital Footprint</li> <li>c) Data Protection</li> <li>d) Plagiarism</li> </ul>	1
15	<p>To mention conditions along with group by function .....clause is used.</p> <p>a)Where b)having c)distinct d)select</p>	1
16	<p>Jhilmalini has stolen a credit card. She used that credit card to purchase a laptop. What type of offence has she committed?</p> <ul style="list-style-type: none"> <li>a. online fraud</li> <li>b. cyber bullying</li> </ul>	1

	c. cyber stalking d. All of the above.																																								
	Q17 and 18 are <b>ASSERTION AND REASONING</b> based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True																																								
17	<b>Assertion (A)</b> : import matplotlib.pyplot as plt is used to import pyplot . <b>Reason (R)</b> :It is python library so it is imported for using its function.																																								
18	<b>Assertion (A)</b> :- Series store data row wise. <b>Reasoning (R)</b> : - A Series is a one-dimensional labelled data structure.																																								
<b>SECTION B</b>																																									
19	Consider a given Series , T1: SUB1     45 SUB2     65 SUB3     24 SUB4     89  Write a program in Python Pandas to create the series. <b>OR</b> Define Series. Write a python statement to create an empty statement.	2																																							
20	Rohit writes the following commands with respect to a table student having fields, Sno, name, Age, fee. Command1 : Select count(*) from student; Command2: Select count(name) from employee; he gets the output as 6 for the first command but gets an output 5 for the second command. Explain the output with justification.	2																																							
21	Consider the following Series object, C_amt Mouse     135 Keyboard   260 Pen drive   80 CD         155  i. Write the command which will display the name of the items having amount <100. ii. Write the command to name the series as comp_items.	2																																							
22	Consider the following DataFrame, Student <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>Rollno</th> <th>Name</th> <th>Class</th> <th>Section</th> <th>Marks</th> <th>Stream</th> </tr> </thead> <tbody> <tr> <td></td> <td>S1</td> <td>1</td> <td>Sheetal</td> <td>XI</td> <td>A</td> <td>87</td> <td>Science</td> </tr> <tr> <td></td> <td>S2</td> <td>2</td> <td>Preet</td> <td>XI</td> <td>B</td> <td>89</td> <td>Arts</td> </tr> <tr> <td></td> <td>S3</td> <td>3</td> <td>Kartik</td> <td>XI</td> <td>A</td> <td>92</td> <td>Science</td> </tr> <tr> <td></td> <td>S4</td> <td>4</td> <td>Laksh</td> <td>XI</td> <td>A</td> <td>94</td> <td>Commerce</td> </tr> </tbody> </table> Write commands to :		Rollno	Name	Class	Section	Marks	Stream		S1	1	Sheetal	XI	A	87	Science		S2	2	Preet	XI	B	89	Arts		S3	3	Kartik	XI	A	92	Science		S4	4	Laksh	XI	A	94	Commerce	2
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	i. Add a new column 'Percentage' to the Data frame. ii. Add a new row with values ( 5 , Rohit ,XI, A ,98,Science)																															
23	Expand the following terms related to Computer Networks: a. HTTP b. POP3 c. FTP d.VoIP  <b>OR</b> Differentiate between static and dynamic web pages.	2																														
24	Consider the following SQL string: "Computer" Write commands to display: a. "mputer" b. "ut"  <b>OR</b> Considering the same string "Computer" Write SQL commands to display: a. The position of the substring 'ter' in the string "Computer". b.The first 5 letters of the string.	2																														
25	List any two health problems related to excessive use of Technology.	2																														
<b>SECTION C</b>																																
26	Cconsider two objects s and t. s is a list whereas t is a Series. Both have values 20, 40, 90, 110. What will be the output of the following two statements considering that the above objects have been created already  a. print (s*2)    b. print(t*2)  Justify your answer.	3																														
27	Consider the Table "Infant" shown below. <b>Table: Infant</b> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>ItemCode</th> <th>Item</th> <th>DatePurchase</th> <th>UnitPrice</th> <th>Discount</th> </tr> </thead> <tbody> <tr> <td>101</td> <td>Frock</td> <td>2016-01-23</td> <td>700</td> <td>10</td> </tr> <tr> <td>102</td> <td>Cot</td> <td>2015-09-23</td> <td>5000</td> <td>25</td> </tr> <tr> <td>103</td> <td>Soft Toy</td> <td>2016-06-17</td> <td>800</td> <td>10</td> </tr> <tr> <td>104</td> <td>Baby Socks</td> <td>2014-10-16</td> <td>100</td> <td>7</td> </tr> <tr> <td>105</td> <td>Baby Suit</td> <td>2015-09-20</td> <td>500</td> <td>5</td> </tr> </tbody> </table> NOTE: Discount column stores discount %. Write SQLcommands to: a. To displays the number of items that have more than 10% as discount. b. To display the highest unit price of items. c. To display the names of items that has 'Baby' anywhere in their item names.	ItemCode	Item	DatePurchase	UnitPrice	Discount	101	Frock	2016-01-23	700	10	102	Cot	2015-09-23	5000	25	103	Soft Toy	2016-06-17	800	10	104	Baby Socks	2014-10-16	100	7	105	Baby Suit	2015-09-20	500	5	3
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28	Write a Python code to create a DataFrame with appropriate column headings from the list	3																														

	<p>given below:</p> <p>[[21101,'MANJUSH',58],[21102,'AKSHAY',60],[21103,'ANN' ,76], [21104,'NITHYA',48]]</p>	
29	<p>What are the different ways in which authentication of a person can be performed?</p> <p style="text-align: center;"><b>OR</b></p> <p>Describe measures to recycle your e-waste.</p>	3
30	<p>Predict the output of the following queries:</p> <p>I) SELECT INSTR ('Very good', 'good');</p> <p>II) SELECT MID('Quadratically',5,6);</p> <p>III) SELECT RIGHT ('Command', 3);</p> <p style="text-align: center;"><b>OR</b></p> <p>Explain the following SQL functions using suitable examples.</p> <p>a) INSTR()</p> <p>b) MID()</p> <p>c) RIGHT()</p>	3
<b>SECTION D</b>		
31	<p>Consider the following graph. Write the code to plot it.</p> <p style="text-align: center;"><b>OR</b></p> <p>Draw the following bar graph representing the uses of programming language.</p>	5
32	<p>A company AST Enterprises has 4 wings of buildings as shown in the diagram :</p> <p>Center to center distances between various Buildings:</p> <p>T3 to T1 - 50m</p> <p>T1 to T2 - 60m</p> <p>T2 to T4 - 25m</p> <p>T4 to T3 - 170m</p> <p>T3 to T2 - 125m</p>	5

T1 to T4 - 90m

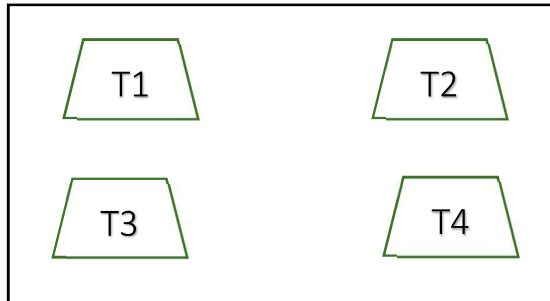
Number of computers in each of the wing:

T1 - 140

T2 - 15

T3 - 15

T4 - 25



Computers in each wing are networked but wings are not networked. The company has now decided to connect the wings also.

- i. Suggest a most suitable cable layout for the above connections.
- ii. Suggest the most appropriate topology of the connection between the wings.
- iii. The company wants internet accessibility in all the wings. Suggest a suitable technology.
- iv. Suggest the placement of the following devices with justification if the company wants minimized network traffic
  - a) Repeater
  - b) Hub / switch
- v. The company is planning to link its head office situated in Pune with the offices in hilly areas. Suggest a way to connect it economically.

33 Write the SQL functions which will perform the following operations:

- i) To display the current date .
- ii) To display the substring “earn” from the whole string ‘LearningIsFun’.
- iii) To round the number 76.384 up to 2 place after decimal point.
- iv) To find the position of first occurrence of ‘R’ in string 'INFORMATION FORM'
- v) To find out the result of  $9^3$  .

**OR**

**Consider a table Order with the following data:**

Table: Order

OrderId	OrderDate	SalesPerson	OrderAmount
O101	2015-09-12	Ravi Kumar	34000
O102	2015-08-15	Rashmi Arora	50000
O103	2015-11-01	Ravi Kumar	55000
O104	2015-12-09	Manjeet Singh	60000
O105	2015-11-10	Rashmi Arora	50000

Write SQL queries using SQL functions to perform the following operations:

- i) To count the number of orders booked by Salespersons with names starting with ‘R’.
- ii) Display the position of occurrence of the string “an” in SalesPerson names.
- iii) Display the four characters from SalesPerson name starting from second character.

- iv) To find the average of order amount.
- v) Display the month name for the Order date.

**SECTION E**

34 A relation Vehicles is given below: 1+1+2

V_no	Type	Company	Price	Qty
AW125	Wagon	Maruti	250000	25
J0083	Jeep	Mahindra	4000000	15
S9090	SUV	Mitsubishi	2500000	18
M0892	Mini van	Datsum	1500000	26
W9760	SUV	Maruti	2500000	18
R2409	Mini van	Mahindra	350000	15

Write SQL commands to:

- a. Count the type of vehicles manufactured by each company.
- b. Display the total price of all the types of vehicles.
- c. Display the average price of each type of vehicle having quantity more than 20.

**OR (Option for part iii only)**

Write a query to display type and price \* quantity with title TOTAL PRICE company wise

35 A dataframe fdf stores data about passengers, Flights and Years as given below. 2+1+1

S_NO	Year	Months	MalePassengers	FemalePassengers
1	2009	January	90	30
2	2009	February	100	18
3	2009	March	98	22
4	2009	April	110	30

- 1) Write python code to create the dataframe.

Perform the following operations on the DataFrame :

- 2) Add both the male and female passengers and assign to column "Total\_passengers"
- 3) Display the maximum passengers in male passengers and maximum passengers in female passengers of the Data Frame.

**OR (Option for part iii only)**

Predict the output of the following python statement:

```
fdf.loc[:, 'year': 'MalePassengers']
```



**CBSE SAMPLE QUESTION PAPER CLASS XII**  
**INFORMATICS PRACTICES (065)**

TIME: 3 HOURS

M.M.70

**General Instructions:**

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only.

PART A		
1.	Television cable network is an example of: i. LAN ii. WAN iii. MAN iv. Internet	1
2.	Which of the following is not a type of cyber crime? i. Data theft ii. Installing antivirus for protection iii. Forgery iv. Cyber bullying	1
3.	What is an example of e-waste? i. A ripened mango ii. Unused old shoes iii. Unused old computers iv. Empty cola cans	1

4.	<p>Which type of values will not be considered by SQL while executing the following statement?</p> <p><b>SELECT COUNT(column name) FROM inventory;</b></p> <ul style="list-style-type: none"> <li>i. Numeric value</li> <li>ii. text value</li> <li>iii. Null value</li> <li>iv. Date value</li> </ul>	1
5.	<p>If column “Fees” contains the data set (5000,8000,7500,5000,8000), what will be the output after the execution of the given query?</p> <p><b>SELECT SUM (DISTINCT Fees) FROM student;</b></p> <ul style="list-style-type: none"> <li>i. 20500</li> <li>ii. 10000</li> <li>iii. 20000</li> <li>iv. 33500</li> </ul>	1
6.	<p>‘O’ in FOSS stands for:</p> <ul style="list-style-type: none"> <li>i. Outsource</li> <li>ii. Open</li> <li>iii. Original</li> <li>iv. Outstanding</li> </ul>	1
7.	<p>Which SQL statement do we use to find out the total number of records present in the table ORDERS?</p> <ul style="list-style-type: none"> <li>i. SELECT * FROM ORDERS;</li> <li>ii. SELECT COUNT (*) FROM ORDERS;</li> <li>iii. SELECT FIND (*) FROM ORDERS;</li> <li>iv. SELECT SUM () FROM ORDERS;</li> </ul>	1
8.	<p>Which one of the following is not an aggregate function?</p> <ul style="list-style-type: none"> <li>i. ROUND()</li> <li>ii. SUM()</li> <li>iii. COUNT()</li> <li>iv. AVG()</li> </ul>	1
9.	<p>Which one of the following functions is used to find the largest value from the given data in MySQL?</p> <ul style="list-style-type: none"> <li>i. MAX()</li> <li>ii. MAXIMUM()</li> <li>iii. BIG()</li> <li>iv. LARGE()</li> </ul>	1

10.	To display last five rows of a series object 'S', you may write: i. S.Head() ii. S.Tail(5) iii. S.Head(5) iv. S.tail()	1
11.	Which of the following statement will import pandas library? i. Import pandas as pd ii. import Pandas as py iii. import pandas as pd iv. import panda as pd	1
12.	Which of the following can be used to specify the data while creating a DataFrame? i. Series ii. List of Dictionaries iii. Structured ndarray iv. All of these	1
13.	Which amongst the following is not an example of a browser? i. Chrome ii. Firefox iii. Avast iv. Edge	1
14.	In SQL, which function is used to display current date and time? i. Date () ii. Time () iii. Current () iv. Now ()	1
15.	Legal term to describe the rights of a creator of original creative or artistic work is: i. Copyright ii. Copyleft iii. GPL iv. FOSS	1
16.	_____ is the trail of data we leave behind when we visit any website (or use any online application or portal) to fill-in data or perform any transaction. i. Offline phishing ii. Offline footprint iii. Digital footprint iv. Digital phishing	1
Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False		

iv. A is false but R is True		
17.	<p><b>Assertion (A):</b> - Internet cookies are text files that contain small pieces of data, like a username, password and user's preferences while surfing the internet.</p> <p><b>Reasoning (R):-</b> To make browsing the Internet faster &amp; easier, its required to store certain information on the server's computer.</p>	1
18.	<p><b>Assertion (A):-</b> DataFrame has both a row and column index.</p> <p><b>Reasoning (R):</b> - A DataFrame is a two-dimensional labelled data structure like a table of MySQL.</p>	1
<b>PART B</b>		
19.	<p>Explain the terms Web page and Home Page.</p> <p>OR</p> <p>Mention any four networking goals.</p>	2
20.	<p>Rashmi, a database administrator needs to display house wise total number of records of 'Red' and 'Yellow' house. She is encountering an error while executing the following query:</p> <pre>SELECT HOUSE, COUNT (*) FROM STUDENT GROUP BY HOUSE WHERE HOUSE='RED' OR HOUSE= 'YELLOW';</pre> <p>Help her in identifying the reason of the error and write the correct query by suggesting the possible correction (s).</p>	2
21.	<p>What is the purpose of Order By clause in SQL? Explain with the help of suitable example.</p>	2
22.	<p>Write a program to create a series object using a dictionary that stores the number of students in each house of class 12D of your school.</p> <p>Note: Assume four house names are Beas, Chenab, Ravi and Satluj having 18, 2, 20, 18 students respectively and pandas library has been imported as pd.</p>	2
23.	<p>List any four benefits of e-waste management.</p> <p>OR</p> <p>Mention any four net etiquettes.</p>	2

24.	What will be the output of the following code: <pre>&gt;&gt;&gt;import pandas as pd &gt;&gt;&gt;A=pd.Series(data=[35,45,55,40]) &gt;&gt;&gt;print(A&gt;45)</pre>	2
25.	Carefully observe the following code:  <pre>import pandas as pd Year1={'Q1':5000,'Q2':8000,'Q3':12000,'Q4': 18000} Year2={'A' :13000,'B':14000,'C':12000} totSales={1:Year1,2:Year2} df=pd.DataFrame(totSales) print(df)</pre> <p>Answer the following:</p> <ol style="list-style-type: none"> <li>List the index of the DataFrame df</li> <li>List the column names of DataFrame df.</li> </ol>	2

<b>SECTION C</b>																																
26.	Write outputs for SQL queries (i) to (iii) which are based on the given tablePURCHASE:  <p style="text-align: center;"><b>TABLE: PURCHASE</b></p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>CNO</th> <th>CNAME</th> <th>CITY</th> <th>QUANTITY</th> <th>DOP</th> </tr> </thead> <tbody> <tr> <td>C01</td> <td>GURPREET</td> <td>NEW DELHI</td> <td>150</td> <td>2022-06-11</td> </tr> <tr> <td>C02</td> <td>MALIKA</td> <td>HYDERABAD</td> <td>10</td> <td>2022-02-19</td> </tr> <tr> <td>C03</td> <td>NADAR</td> <td>DALHOUSIE</td> <td>100</td> <td>2021-12-04</td> </tr> <tr> <td>C04</td> <td>SAHIB</td> <td>CHANDIGARH</td> <td>50</td> <td>2021-10-10</td> </tr> <tr> <td>C05</td> <td>MEHAK</td> <td>CHANDIGARH</td> <td>15</td> <td>2021-10-20</td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li><b>SELECT LENGTH(CNAME) FROM PURCHASE WHERE QUANTITY&gt;100;</b></li> <li><b>SELECT CNAME FROM PURCHASE WHERE MONTH(DOP)=3;</b></li> <li><b>SELECT MOD (QUANTITY, DAY(DOP)) FROM PURCHASE WHERE CITY= 'CHANDIGARH';</b></li> </ol>	CNO	CNAME	CITY	QUANTITY	DOP	C01	GURPREET	NEW DELHI	150	2022-06-11	C02	MALIKA	HYDERABAD	10	2022-02-19	C03	NADAR	DALHOUSIE	100	2021-12-04	C04	SAHIB	CHANDIGARH	50	2021-10-10	C05	MEHAK	CHANDIGARH	15	2021-10-20	3
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27.	Write a Python code to create a DataFrame with appropriate column headingsfrom the list given below:  <pre>[[101,'Gurman',98],[102,'Rajveer',95],[103,'Samar' ,96], [104,'Yuvraj',88]]</pre>	3																														

28.	<p>Consider the given DataFrame 'Stock':</p> <table border="1"> <thead> <tr> <th></th> <th>Name</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Nancy Drew</td> <td>150</td> </tr> <tr> <td>1</td> <td>Hardy boys</td> <td>180</td> </tr> <tr> <td>2</td> <td>Diary of a wimpy kid</td> <td>225</td> </tr> <tr> <td>3</td> <td>Harry Potter</td> <td>500</td> </tr> </tbody> </table> <p>Write suitable Python statements for the following:</p> <ol style="list-style-type: none"> <li>Add a column called Special_Price with the following data:[135,150,200,440].</li> <li>Add a new book named 'The Secret' having price 800.</li> <li>Remove the column Special_Price.</li> </ol>		Name	Price	0	Nancy Drew	150	1	Hardy boys	180	2	Diary of a wimpy kid	225	3	Harry Potter	500	3
	Name	Price															
0	Nancy Drew	150															
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29.	<p>Nadar has recently shifted to a new city and school. She does not know many people in her new city and school. But all of a sudden, someone is posting negative, demeaning comments on her social networking profile etc.</p> <p>She is also getting repeated mails from unknown people. Every time she goes online, she finds someone chasing her online.</p> <ol style="list-style-type: none"> <li>What is this happening to Nadar?</li> <li>What immediate action should she take to handle it?</li> <li>Is there any law in India to handle such issues? Discuss briefly.</li> </ol>	3															

**OR**

What do you understand by plagiarism? Why is it a punishable offence? Mention any two ways to avoid plagiarism.

30.	<p>Based on table <b>STUDENT</b> given here, write suitable SQL queries for the following:</p> <table border="1"> <thead> <tr> <th>Roll No</th> <th>Name</th> <th>Class</th> <th>Gender</th> <th>City</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Abhishek</td> <td>XI</td> <td>M</td> <td>Agra</td> <td>430</td> </tr> <tr> <td>2</td> <td>Prateek</td> <td>XII</td> <td>M</td> <td>Mumbai</td> <td>440</td> </tr> <tr> <td>3</td> <td>Sneha</td> <td>XI</td> <td>F</td> <td>Agra</td> <td>470</td> </tr> <tr> <td>4</td> <td>Nancy</td> <td>XII</td> <td>F</td> <td>Mumbai</td> <td>492</td> </tr> <tr> <td>5</td> <td>Himnashu</td> <td>XII</td> <td>M</td> <td>Delhi</td> <td>360</td> </tr> <tr> <td>6</td> <td>Anchal</td> <td>XI</td> <td>F</td> <td>Dubai</td> <td>256</td> </tr> <tr> <td>7</td> <td>Mehar</td> <td>X</td> <td>F</td> <td>Moscow</td> <td>324</td> </tr> <tr> <td>8</td> <td>Nishant</td> <td>X</td> <td>M</td> <td>Moscow</td> <td>429</td> </tr> </tbody> </table> <ol style="list-style-type: none"> <li>Display gender wise highest marks.</li> <li>Display city wise lowest marks.</li> <li>Display total number of male and female students.</li> </ol> <p style="text-align: center;"><b>OR</b></p> <p>Discuss the significance of Group by clause in detail with the help of suitable example.</p>	Roll No	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	3
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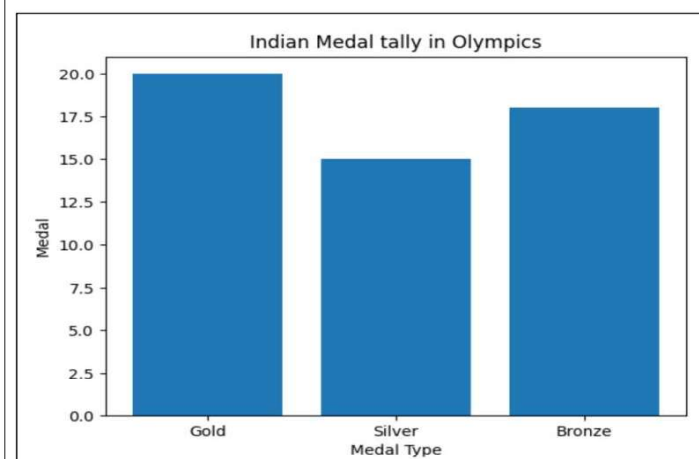
31.	<p>Write suitable SQL query for the following:</p> <ol style="list-style-type: none"> <li>Display 7 characters extracted from 7<sup>th</sup> left character onwards from the string 'INDIA SHINING'.</li> <li>Display the position of occurrence of string 'COME' in the string 'WELCOME WORLD'.</li> <li>Round off the value 23.78 to one decimal place.</li> <li>Display the remainder of 100 divided by 9.</li> <li>Remove all the expected leading and trailing spaces from a column userid of the table 'USERS'.</li> </ol> <p style="text-align: center;"><b>OR</b></p> <p>Explain the following SQL functions using suitable examples.</p> <ol style="list-style-type: none"> <li>UCASE()</li> <li>TRIM()</li> <li>MID()</li> <li>DAYNAME()</li> <li>POWER()</li> </ol>	5																										
32.	<p>Prime Computer services Ltd. is an international educational organization. It is planning to set up its India campus at Mumbai with its head office in Delhi. The Mumbai office campus has four main buildings-ADMIN, ACCOUNTS, EXAMINATION and RESULT.</p> <p>You as a network expert have to suggest the best network related solutions for their problems raised in (i) to (v), keeping in mind the distances between the buildings and other given parameters.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px; width: 25%;">DELHI HEAD OFFICE</td> <td style="border: 1px solid black; padding: 5px; width: 25%;">EXAMINATION</td> <td style="border: 1px solid black; padding: 5px; width: 25%;">ADMIN</td> </tr> <tr> <td></td> <td style="border: 1px solid black; padding: 5px;">ACCOUNTS</td> <td style="border: 1px solid black; padding: 5px;">RESULT</td> </tr> </table> </div> <p>Shortest distances between various buildings:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>ADMIN TO ACCOUNTS</td> <td style="text-align: right;">55 m</td> </tr> <tr> <td>ADMIN TO EXAMINATION</td> <td style="text-align: right;">90 m</td> </tr> <tr> <td>ADMIN TO RESULT</td> <td style="text-align: right;">50 m</td> </tr> <tr> <td>ACCOUNTS TO EXAMINATION</td> <td style="text-align: right;">55 m</td> </tr> <tr> <td>ACCOUNTS TO RESULT</td> <td style="text-align: right;">50 m</td> </tr> <tr> <td>EXAMINATION TO RESULT</td> <td style="text-align: right;">45 m</td> </tr> <tr> <td>DELHI Head Office to MUMBAI CAMPUS</td> <td style="text-align: right;">2150 m</td> </tr> </table> <p>Number of computers installed at various buildings are as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>ADMIN</td> <td style="text-align: right;">110</td> </tr> <tr> <td>ACCOUNTS</td> <td style="text-align: right;">75</td> </tr> <tr> <td>EXAMINATION</td> <td style="text-align: right;">40</td> </tr> </table>	DELHI HEAD OFFICE	EXAMINATION	ADMIN		ACCOUNTS	RESULT	ADMIN TO ACCOUNTS	55 m	ADMIN TO EXAMINATION	90 m	ADMIN TO RESULT	50 m	ACCOUNTS TO EXAMINATION	55 m	ACCOUNTS TO RESULT	50 m	EXAMINATION TO RESULT	45 m	DELHI Head Office to MUMBAI CAMPUS	2150 m	ADMIN	110	ACCOUNTS	75	EXAMINATION	40	5
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RESULT 12  
DELHI HEAD OFFICE 20

- (i) Suggest the most appropriate location of the server inside the MUMBAI campus (out of the four buildings) to get the best connectivity for maximum number of computers. Justify your answer.
- (ii) Suggest and draw cable layout to efficiently connect various buildings within the MUMBAI campus for a wired connectivity.
- (iii) Which networking device will you suggest to be procured by the company to interconnect all the computers of various buildings of MUMBAI campus?
- (iv) Company is planning to get its website designed which will allow students to see their results after registering themselves on its server. Out of the static or dynamic, which type of website will you suggest?
- (v) Which of the following will you suggest to establish the online face to face communication between the people in the ADMIN office of Mumbai campus and Delhi head office?
  - a) Cable TV
  - b) Email
  - c) Video conferencing
  - d) Text chat

33. Write Python code to plot a bar chart for India's medal tally as shown below:

5



Also give suitable python statement to save this chart.

**OR**

Write a python program to plot a line chart based on the given data to depict the changing weekly average temperature in Delhi for four weeks.

```
Week=[1,2,3,4]  
Avg_week_temp=[40,42,38,44]
```



**SECTION E**

34.	Shreya, a database administrator has designed a database for a clothing shop. Help her by writing answers of the following questions based on the given table: <b>TABLE: CLOTH</b>					1+1+2
	<b>TABLE: CLOTH</b>					
	CCODE	CNAME	SIZE	COLOR	PRICE DOP	
	C001	JEANS	XL	BLUE	990 2022-01-21	
	C002	T SHIRT	M	RED	599 2021-12-12	
	C003	TROUSER	M	GREY	399 2021-11-10	
	C004	SAREE	FREE	GREEN	1299 2019-11-12	
	C005	KURTI	L	WHITE	399 2021-12-07	
i. Write a query to display cloth names in lower case. ii. Write a query to display the lowest price of the cloths. iii. Write a query to count total number of cloths purchased of medium size.						

**OR (Option for part iii only)**

Write a query to count year wise total number of cloths purchased.

35.	Mr. Som, a data analyst has designed the DataFrame <b>df</b> that contains data about Computer Olympiad with 'CO1', 'CO2', 'CO3', 'CO4', 'CO5' as indexes shownbelow. Answer the following questions:					1+1+2
		School	Tot_students	Topper	First_Runnerup	
	CO1	PPS	40	32	8	
	CO2	JPS	30	18	12	
	CO3	GPS	20	18	2	
	CO4	MPS	18	10	8	
	CO5	BPS	28	20	8	
	A. Predict the output of the following python statement: i. df.shape ii. df[2:4] B. Write Python statement to display the data of Topper column of indexesCO2 to CO4.					
<b>OR (Option for part iii only)</b>						
Write Python statement to compute and display the difference of data of Tot_students column and First_Runnerup column of the above given DataFrame.						



	<p>(b) def interest (prin=2000, time=2, rate):  (c) def interest (prin=2000; time=2; rate)  (d) def interest (prin, time=2, rate=0.10):</p>
13	<p>Identify which module is used to read/write data from/in the text file?  a. csv            b. CSV            c. No special module required.            d. Pickle</p>
14	<p>Which types of files stores information in the form of a stream of ASCII or Unicode Characters  a) Binary Files  b) Both Text Files and CSV Files  c) Only Text files  d) Only CSV Files</p>
15	<p>Consider following Python Code to read text file:  F=open("Story.txt")  Data=F.read(10).  Which of the following statement is True regarding variable Data  a) Data contains list of 10 lines  b) Data contain list of 10 characters  c) Data contains string of 10 characters  d) Data contains integer value 10</p>
16	<p>Assume that the position of the file pointer is at the beginning of 3rd line in a text file. Which of the following options can be used to read all the remaining lines?  a) myfile.read(n-3)            b). myfile.read(n)  c) myfile.readline()            d) myfile.readlines()</p>
17	<p>Which of the following statements is not correct?  a) If we try to read a text file that does not exist, an error occurs.  b) If we try to read a text file that does not exist, the file gets created.  c) If we try to write on a text file that does not exist, no error occurs.  d) If we try to write on a text file that does not exist, the file gets created.</p>
18	<p>To read data from binary file _____ function is used ?  a) pickles.load(file_object)            b) file_object.load(object)  c) object=load(file_object)            d) object=pickle.load(file_object)</p>
19	<p><i>file.seek(56,0)</i>, What relative stream position 0 represent in given seek function?  a) Relative to beginning of file            b) Relative to end of file  c) Relative to current position of file            d) None of the above</p>
20	<p>The process of converting the structure to a byte stream before writing to the file is known as _____  Pickling            b) Unpickling            c) Dump            d) Load</p>
21	<p>The _____ paths are from the topmost level of the directory structure.  a) Direct            b) Relative            c) Absolute            d) Parent</p>
22	<p>Name the error which raised by pickle.load() function when it reaches end of file while reading binary file?  a) fileError            b) ErrorEndOfFile            c) EOFError            d) FileEndError</p>
23	<p>Name the function to read from CSV file.  a) read()            b) csv.reader()            c) csv_read()            d) read_csv()</p>
24	<p>Write full form of CSV  a) Comma separated values            b) Comma settled values  c) Common separated values            d) None of the above</p>
25	<p>An existing CSV file if open in 'w' mode writing data then:-  a) new data will be added at the end of file  b) new data will be added at the beginning of file</p>

	<p>c) Old data will be lost and new data will be stored. d) An Error will occur.</p>
<b>Section – B</b>	
This section consists of 24 Questions (26 to 49).	
26	<p>What will be the output of following Python Code: <b>if 5&gt;2 or 8&lt;5 and 0 :</b>     <b>print(“Hello”)</b> <b>else:</b>     <b>print(“Welcome”)</b> a) Error                      b) Hello                      c) Welcome                      d) HelloWelcome</p>
27	<p>What will be the output of following Python Code: <b>X,Y=10,20</b> <b>Y,Y,Y=Y+2, X+5, Y-2</b> <b>print(Y)</b> a) 20                              b) 15                              c) 18                              d) 22</p>
28	<p>What will be the output of following Python Code: <b>P,S=1,0</b> <b>for X in range(-5,15,5):</b>     <b>P*=X</b>     <b>S+=X</b> <b>else:</b>     <b>print(P, “#”, S)</b> a) 10#5                              b) 10#0                              c) 0#10                              d) 5#10</p>
29	<p>Identify the output of the following Python statements. L1=[6,4,2,9,7] L1[3:] = “100” (a) [6,4,2,9,7,100]                      (b) [6,4,2,100]                      (c) [6,4,2,1,0,0]                      (d) [6,4,2, ‘1’,’0’,’0’]</p>
30	<p>What will be the output of following Python Code: <b>import random as rd</b> <b>high=4</b> <b>Guess=rd.randrange(high)+50</b> <b>for C in range(Guess, 56):</b>     <b>print(C,end=“#”)</b>  a) 50 # 51 # 52 # 53 # 54 # 55 #                              b) 54 # 53 # 54 # 55 # c) 53 # 54 # 55 # 56 #                              d) 51 # 52 # 53 # 54 # 55</p>
31	<p>What will be the output of following Python Code: <b>data=[10,“ram”,20,“sham”,30,“anil”]</b> <b>data.append(“Sunil”)</b> <b>data[2]=“Raj”</b> <b>data.pop()</b> <b>del data[1]</b> <b>data[-1]=“Magic”</b> <b>print(data)</b> a) [10, 'Ram', 'sham', 30, 'Sunil']                              b) [10, 'Raj', 'sham', 30, 'Magic']</p>

	c) [10, 'Magic', 'sham', 30, 'Sunil']	d) [10, 'Ram', 'sham', 30, 'Magic']
32	<p>What will be the output of following Python Code:</p> <pre> def evenodd(num):     for i in range(len(num)):         if num[i]%2==0:             num[i]/=2         else:             num[i]*=2     return num #main-coding numbers=[10,15,20,25] print(evenodd(numbers))</pre> <p><b>#function call</b></p> <p>a) [5, 30, 10, 25]                      b) [5.0, 30, 10.0, 50]  c) [20.0, 7.5, 40.0, 12.5]              d) [20, 15, 40, 12.5]</p>	
33	<p>What will be the output of following Python Code:</p> <pre> def convert(name):     N=' '     for k in name:         if k.isupper():             N=N+k.lower()         elif k.islower():             N=N+k.upper()         else:             N=N+k     print(N) #main-coding convert('Term-1#EXAM')</pre> <p>a) tERM-1#exam      b) Term-1#EXAM  c) exam-1# tERM      d) #EXAM Term-1</p>	
34	<p>What will be the output of following Python Code:</p> <pre> G=10 def fun1():     global G     G=20     print(G, end="*")     G=G+10 fun1() #call to fun1 print(G)</pre> <p>a) 10*20              b) 20*30              c) 20*20              d) 10*10</p>	
35	<p>Suppose the content of "Myfile.txt" is :-</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p><i>Humpty Dumpty sat on a wall  Humpty Dumpty had a great fall  All the king's horses and all the king's men  Couldn't put Humpty together again</i></p> </div> <p>What will be the output of the following code?</p> <pre> myfile = open("Myfile.txt") record = myfile.readlines()</pre>	

	<pre>print(len(record)) myfile.close()</pre> <p>a) 4                      b) 5                      c) 6                      d) 3</p>
36	<p>Suppose the content of "story.txt" is :-</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><i>Always Think Positive,</i> <i>Never THINK Negative</i></p> </div> <p>What will be the output of the following Python code?</p> <pre>file1=open("story.txt","r") data=file1.read() word=1 k=data.split() for i in k:     if i.upper()=="THINK":         word=word+1 print(word) file1.close()</pre> <p>a) 0                      b) 1                      c) 2                      d) 3</p>
37	<p>Suppose the content of "Essay.txt" is :-</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Twinkle twinkle little star How I wonder what you are Up above the world so high Like a diamond in the sky Twinkle twinkle little star</p> </div> <p>What will be the output of the following code?</p> <pre>myfile = open('Essay.txt') line_count = 0 data = myfile.readlines() for line in data:     if line[-2] in 'Rr':         line_count += 1 print(line_count) myfile.close()</pre> <p>a) 2                      b) 3                      c) 4                      d) 5</p>
38	<p>What will be the output of following Python Code:</p> <pre>A,B=20,10 if A&lt;B:     print("Smaller", end= ' ')     break     print("Number") else:     print("Greater")</pre> <p>a) Smaller Number      b) Smaller      c) Greater      d) Syntax Error</p>

39	<p>Suppose the content of "Story.txt" is :-</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>God is one GOD is everywhere God bless you</p> </div> <p>What will be the content of the file "Kahani.txt" after execution of following Python Code?</p> <pre>File1 = open("Story.txt") File2 = open("Kahani.txt", 'w') content = File1.read() data=content.split() for word in data:     if 'o' in word :         File2.write(word+" ") File1.close() File2.close()</pre> <p>a) God One GOD God                      b) God One God you c) God One GOD God you                d) God GOD God</p>
40	<p>Raj has written following program to copy story.txt file data into file kahani.txt. Help Raj to complete the program by choosing correct option to fill in blank.</p> <p><b># Program to copy Story.txt file into new file Kahni.txt</b></p> <pre>file1=open("story.txt","r") file2=open("kahani.txt","w") data=file1.read() _____ # to write data in kahani.txt file1.close() file2.close() print("File copied")</pre> <p>a) file1.writedata()    b) file2.writedata( )    c) file1.write(data)    d) file2.write(data)</p>
41	<p>Syntax of seek function in Python is <b>myfile.seek(offset, reference_point)</b> where myfile is the file object. What is the default value of reference_point?</p> <p>a) 0                      b)1                      c) 2                      d) 3</p>
42	<p>The content of text file INSTITUTE.TXT is :</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>KVS is a great organization</p> </div> <p>What will be the content of INSTITUTE.TXT after execution of following Python code:</p> <pre>file1=open("INSTITUTE.TXT","w") file.write("of India") file1.close()</pre> <p>a) KVS is a great organization of India                      b)KVS is a great organization of World c) KVS is a great organization                                      d)of India</p>
43	<p>Raj is trying to write an object obj1 = (1,2,3,4,5) on a binary file "test.dat". Consider the following code written by him.</p> <pre>import pickle obj1 = (1,2,3,4,5) myfile = open('test.dat','wb') pickle._____ #Statement 1 myfile.close( )</pre> <p>Identify the missing code in Statement 1.</p> <p>a) dump(myfile,obj1)                      b) dump(obj1, myfile)</p>





	<b>file1.close()</b> a) 0#Think      b) 1#Think      c) 0#Alway      d) 1#Alway
47	What will be the output of following Python Code: <b>def chkdigit(a,b):</b> <b>da=a%10</b> <b>db=b%10</b> <b>if da&lt;db:</b> <b>return a</b> <b>elif da&gt;db:</b> <b>return b</b> <b>else:</b> <b>return da,db</b> <b>#main-coding</b> <b>print(chkdigit(603,297))</b> a) 297      b) 603      c) (3,7)      d) [3,7]
48	What will be the output of following Python Code: <b>def change(num):</b> <b>for x in range(0,len(num),2):</b> <b>num[x], num[x+1]=num[x+1], num[x]</b>  <b>#main-coding</b> <b>data=[10,20,30,40,50,60]</b> <b>change(data)</b> <b>print(data)</b> a) [10, 20, 30, 40, 50, 60]      b) [60, 50, 40, 30, 20, 10] c) [20, 10, 40, 30, 60, 50]      d) [40, 50, 60, 10, 20, 30]
49	Consider following Python Code and tell which line(s) have error(s):-  <b>def display[num]:</b> <b>#Line-1</b> <b>if num=&lt;0 :</b> <b>#Line-2</b> <b>print("negative or zero")</b> <b>#Line-3</b> <b>elseif num&gt;=0:</b> <b>#Line-4</b> <b>print('positive or zero')</b> <b>#Line-5</b> <b>else:</b> <b>#Line-6</b> <b>print('zero')</b> <b>#Line-7</b> <b>#main-coding</b> <b>#Line-8</b> <b>call display(2021)</b> <b>#Line-9</b> a) Line numbers 1,3,4,6 and 9      b) Line numbers 1,2,4,6 and 9 c) Line numbers 2,3,4,5 and 9      d) Line numbers 1,2,4,5 and 9
<b>Section - C</b>	
<b>This section consists of 6 Questions (50 to 55) on case study base.</b>	
Sakshi student of class 12 is writing a program to create a CSV file “employee.csv” which will contain employee-code, employee-name and Salary for some entries. She has written the following code. As a programmer, help her to successfully execute the given task <b>import _____</b> <b>#line-1</b> <b>#Function to add / write single Employee records</b> <b>def addemployee(record):</b> <b>file1=open('employee.csv', 'a')</b>	

	<pre> csvobj=csv._____ (file1)           #line-2 csvobj._____ (record)           #line-3 file1.close() #Function to read employee records def reademployee():     file1=open('employee.csv','r')   #line-4     csvobj=csv._____ (file1)     #line-5     for rec in csvobj:         if int(rec[2])&gt;15000:             print(rec)     file1.close() #main-coding rec1=[101,'ram',10000] rec2=[102,'sham',20000] rec3=[103,'sita',15000] addemployee(rec1) addemployee(rec2) addemployee(rec3) reademployee()                       #line-6 </pre>
50	Name the module he should import in Line 1. a) import csv    b) import CSV    c) import csv module    d) import Csv
51	Fill in the blank in Line 2 to create CSV object for writing. a) writer    b) writerow    c) writerows    d) write
52	Fill in the blank in Line 3 to write record / data of one student in CSV file. a) writer    b) writerow    c) writerows    d) writeline
53	Fill in the blank in Line 4 with file open mode for reading data from CSV file a) "r"    b) "a"    c) "w"    d) "rb"
54	Fill in the blank in Line 5 to read data from CSV file. a) reader    b) read    c) readlines    d) readline
55	Write the output Sakshi will obtain while executing line 6 a) (102, 'sham', 20000) b) [102, 'sham', 20000] c) [103, 'sita', 15000] d) (103, 'sita', 15000)

\*\*\*\*\* End of Holiday Homework \*\*\*\*\*