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|  | ***EEE CONSORTIUM***  **PRE-BOARD EXAMINATION – II (2022-23)**  **Sub: Informatics Practices [065]**  **Session: 2022-23**  **Class-XII**  **SET-1**  **TIME: 3 HOURS M.M.70** |  |
|  | **PART A** |  |
|  | Ms.ShyamGiri,branch officerofGlobal communicationsrecentlydiscoveredthatthecommunication between her company’s accounts office and HR office is extremelyslowandsignalsdropquitefrequently.Theseofficesare125metersawayfromeachother and connected by an Ethernet cable. What kind of network is formed ?  a) LAN  b) MAN  c) WAN  d) PAN | [ 1 ] |
|  | 1. ***LAN***   ***(1 mark for correct answer)*** |  |
|  | The act of fraudulently acquiring someone’s personal and private information, such as online account names, login information and passwords is called as ...............   |  |  | | --- | --- | | 1. Scam | 1. Fraud | | 1. Phishing | 1. Plagiarism | | [ 1 ] |
|  | 1. **Phishing**   ***(1 mark for correct answer)*** |  |
|  | The process of re-selling old electronic goods at lower prices is called \_\_\_\_.   |  |  | | --- | --- | | 1. Refurbishing | 1. Reuse | | 1. Recycle | 1. Reduce | | [ 1 ] |
|  | 1. **Refurbishing**   ***(1 mark for correct answer)*** |  |
|  | All aggregate functions ignore NULLs except for the \_\_\_\_\_\_\_ function.   |  |  | | --- | --- | | 1. Avg() | 1. Count(\*) | | 1. Min() | 1. Max() | | [ 1 ] |
|  | 1. **Count(\*)**   ***(1 mark for correct answer)*** |  |
|  | If column “Marks” contains the data set (50,80,20,50,20), what will be the output after the execution of the given query?  SELECT SUM (DISTINCT Marks) FROM student;   |  |  | | --- | --- | | 1. 200 | 1. 150 | | 1. 240 | 1. 220 | | [ 1 ] |
|  | b.150  ***(1 mark for correct answer)*** |  |
|  | Which of the following software allows copy, free use, redistribution, and modification?   1. Licensed 2. Free and Open Source Software (FOSS) 3. General Public License (GPL) 4. All of these | [ 1 ] |
|  | 1. **Free and Open Source Software (FOSS)**   ***(1 mark for correct answer)*** |  |
|  | To display the job where the number of employees is less than 3.   1. SELECT JOB, COUNT(\*) FROM EMP WHERE COUNT(\*) < 3; 2. SELECT JOB, COUNT(\*) FROM EMP WHERE COUNT(\*) < 3 GROUP BY JOB; 3. SELECT JOB, COUNT(\*) FROM EMP GROUP BY JOB WHERE COUNT(\*) < 3; 4. SELECT JOB, COUNT(\*) FROM EMP GROUP BY JOB HAVING COUNT (\*) < 3; | [ 1 ] |
|  | 1. **SELECT JOB, COUNT(\*) FROM EMP GROUP BY JOB HAVING COUNT (\*) < 3;**   ***(1 mark for the correct answer)*** |  |
|  | Which one of the following is not a scalar function?   |  |  | | --- | --- | | 1. LENGTH() | 1. DAY() | | 1. MID() | 1. COUNT() | | [ 1 ] |
|  | 1. COUNT()   ***(1 mark for the correct answer)*** |  |
|  | To display the name of employees who are getting more salary than the maximum salary of clerks.  (a) SELECT ENAME FROM EMP WHERE SAL >(SELECT MAX(SAL) FROM EMP   WHERE JOB=’CLERK’);  (b) SELECT ENAME , MAX(SAL) FROM EMP WHERE JOB=’CLERK’;  I SELECT ENAME FROM EMP WHERE SAL >MAX(SAL);  (d) SELECT ENAME FROM EMP WHERE JOB=’CLERK’ AND SAL=MAX(SAL); | [ 1 ] |
|  | a. SELECT ENAME FROM EMP WHERE SAL >(SELECT MAX(SAL) FROM EMP   WHERE JOB=’CLERK’);  ***(1 mark for correct answer)*** |  |
|  | Which is not a group function?   |  |  | | --- | --- | | 1. Avg() | 1. Mod() | | 1. Count() | 1. Sum() | | [ 1 ] |
|  | * 1. Mod()   ***(1 mark for correct answer)*** |  |
|  | A series contains a total of 10 elements including a missing value. The output of count() and len() functions when applied to this Series respectively will be.   |  |  | | --- | --- | | 1. 10,10 | 1. 9,10 | | 1. 9,9 | 1. 10,9 | | [ 1 ] |
|  | * 1. **9,10**   ***(1 mark for the correct answer)*** |  |
|  | PANDAS stands for \_\_\_\_\_\_\_\_\_\_\_\_\_.   |  |  | | --- | --- | | 1. Panel Data Analysis | 1. Panel Data analyst | | 1. Panel Data | 1. Panel Dashboard | | [ 1 ] |
|  | 1. **Panel Data**   ***(1 mark for the correct answer)*** |  |
|  | \_\_\_\_\_\_\_ is the process of renting or buying space to house a website on the World Wide Web.   |  |  | | --- | --- | | 1. Webspace | 1. Cloud Computing | | 1. Web Hosting | 1. Web Store | | [ 1 ] |
|  | **c.Web Hosting**  ***(1 mark for the correct answer)*** |  |
|  | What will be returned by the given query?  SELECT month(‘2020-05-11’);   |  |  | | --- | --- | | 1. 5 | 1. 11 | | 1. May | 1. November | | [ 1 ] |
|  | a.5  ***(1 mark for the correct answer)*** |  |
|  | \_\_\_\_ gives you right to exclude others from making, selling, using, or importing a particular product or service.   |  |  | | --- | --- | | 1. Trademark | 1. Copyright | | 1. Patent | 1. Plagiarism | | [ 1 ] |
|  | c.Patent  ***(1 mark for the correct answer)*** |  |
|  | \_\_\_\_\_\_\_\_ is an act of hurt someone using comments, memes, or anything related to mockery on someone.   |  |  | | --- | --- | | 1. Cybercrime | 1. Cyberstalking | | 1. Cyberbullying | 1. Spoofing | | [ 1 ] |
|  | **Cyberbullying**  ***(1 mark for the correct answer)*** |  |
|  | Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as   * 1. 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 | [ 1 ] |
|  | **Assertion (A): -** Internet cookies are text files that contain small pieces of data, like a username, password and user’s preferences while surfing the internet.  **Reasoning I:-** To make browsing the Internet faster & easier, its required to store certain information on the server’s computer. | [ 1 ] |
|  | i)Both A and R are true and R is the correct explanation for A  ***(1 mark for the correct answer)*** |  |
|  | **Assertion (A) :** In the pandas series, the index property is used to fetch the values using index labels.  **Reason I :**The series can have only numeric index to work with series. | [ 1 ] |
|  | **iii. A is True but R is False**  ***(1 mark for the correct answer)*** |  |
|  | **PART B** |  |
|  | Write two advantages and two disadvantages of bus topology.  **OR**  Explain the difference between a web hosting and web server with suitable examples. | [ 2 ] |
|  | Advantages of bus topology are :  1. It is easy to install.  2. It is cost effective as it does not require much cable.  3. Easy to connect or remove devices in this topology.  Disadvantages of bus topology are:  1. Difficult to find faulty device.  2. If the main cable damage, then entire network will be down.  ***( ½ mark for each advantage and disadvantage of bus topology)***  OR  Web hosting: Web hosting service is provided by companies to host web server applications  through which websites are accessible to the internet users via world wide web.  These companies are known as web hosts. The host may provide a control panel  for managing web server to add new information to the website. Examples of web  hosting companies are:  webhostingsitesindia.co.in, godaddy.com  Web server: A web server is a computer that runs websites. The basic objective of the web server is to store, process and deliver web pages to the users. This intercommunication is done using Hypertext Transfer Protocol (HTTP).  ***( 1 mark for the point of difference and 1 mark for the example)*** |  |
|  | Shanya Khanna is using a table Doctor. It has the following columns:  Doctor\_code, Dname, ord\_date, She wants to counts the number of doctors registering patients for each day. (If a doctor has more than one patient on a given day, he or she should be counted only once).  **She wrote the following statement:**  SELECT ord\_date, DISTINCT(COUNTdoctor\_code) FROM Patients;  But she did not get the desired result. Rewrite the above query with necessary changes to help her get the desired output. | [ 2 ] |
|  | **SELECT ord\_date, COUNT (DISTINCTdoctor\_code) FROM Patients GROUP BY ord\_date;**  ***( ½ Mark for each error identification 1 Mark for writing correct query)*** |  |
|  | What is the difference between WHERE and HAVING clause? | [ 2 ] |
|  | **WHERE clause**  WHERE clause is used to filter the records from the table based on the specified condition.  WHERE clause implements in row operation.  WHERE clause cannot contain aggregate function.  WHERE clause can be used with SELECT, UPDATE, DELETE statement.  WHERE clause is used with single row function like UPPER, LOWER etc.  **HAVING clause**  HAVING clause is used to filter record from the groups based on the specified condition.  HAVING clause implements in column operation.  HAVING clause can contain aggregate function.  HAVING clause can only be used with SELECT statement.  HAVING clause is used with multiple row function like SUM, COUNT etc.  ***( 1 mark for having and 1 mark for where)*** |  |
|  | Write a program to generate a series using a dictionary to represent month number and month names. | [ 2 ] |
|  | import pandas as pd  s = pd.Series({1:’January’,2:’February’,3:’March’,4:’April’,5:’May’,6:’June’,  7:’July’,8:’August’,9:’September’,10:’October’,11:’November’,12:’December’})  print(s)  ***(1 mark for each correct python statement)*** |  |
|  | What are the impacts of E-Waste on the environment?  Or  What is IPR? How it can be legally protected? | [ 2 ] |
|  | Following are the impacts of E-Waste on the environment.  It pollutes air through the emission of gases and flumes in the atmosphere.  It pollutes soil when dumped into the landfills by seeping harmful chemicals into the soil.  It pollutes the water by releasing the particles into the water of sea, rivers, ponds or lakes.  ***(2 marks for 2 corrected statements)***  **Or**  Intellectual property refers to intangible property that has been created by individuals and corporations for their benefit or usage. It is therefore unethical to copy or steal the creativity and efforts of someone else.  It can be legally protected through s copyright, trademark, patent and digital data.  ***(1 mark for explanation and 1 mark for protection methods)*** |  |
|  | Consider two objects x and y. x is a list whereas y 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 (x\*2)  b. print(y\*2)  **Justify your answer.** | [ 2 ] |
|  | 1. will give the output as: [20,40,90,110,20,40,90,110] 2. will give the output as:     **Justification:** In the first statement x represents a list so when a list is multiplied by a number, it is replicated that many number of times. The second y represents a series. When a series is multiplied by a value, then each element of the series is multiplied by that number.  ***( ½ mark for the each output and 1 mark for the explanation)*** |  |
|  | **import pandas as pd**  Jodhpur={‘Q1’:5000,’Q2’:8000,’Q3’:12000,’Q4’: 18000}  Jaipur={‘A’ :13000,’B’:14000,’C’:12000}  totSales={1:Jodhpur,2:Jaipur}  df=pd.DataFrame(totSales)  **Answer the following:**   1. List the index of the DataFramedf 2. List the column names of DataFramedf. | [ 2 ] |
|  | 1. **Index([‘A’, ‘B’, ‘C’, ‘Q1’, ‘Q2’, ‘Q3’, ‘Q4’], dtype=’object’)** 2. **Int64Index([1, 2], dtype=’int64’)**   ***( 1 mark for each output)*** |  |
|  | **SECTION C** |  |
|  | Consider following table in MySQL named ‘ITEMS’ and predict the output.     |  |  |  | | --- | --- | --- | | **ITEM\_NO** | **ITEM\_NAME** | **COST** | | 101 | MICROWAVE | 5000 | | 102 | REFRIDGERATOR | NULL | | 103 | TELEVISION | 4000 | | 104 | WASHING MACHINE | 6000 | | 105 | DISH WASHER | NULL |  1. SELECT RIGHT(ITEM\_NAME,4) FROM ITEMS WHERE COST<5000; 2. SELECT INSTR(ITEM\_NAME,’R’) FROM ITEMS; 3. SELECT SUBSTR(ITEM\_NAME,-5,3) FROM ITEM; | [ 3 ] |
|  | |  | | --- | | **RIGHT(ITEM\_NAME,4)** | | SION |  |  | | --- | | **INSTR(ITEM\_NAME,’R’)** | | 4 | | 1 | | 11 |  |  | | --- | | **ITEM\_NAME** | | OWA | | RAT | | ISI | | CHI | | DISH WASHER |   ***(1 mark for each correct output)*** |  |
|  | Write a Python code to create a DataFrame with appropriate column headings from the list given below:  [[1,’Multimedia’,98],[2,’CS’,95],[3,’IP’ ,96],[3,’Networking’,88]] | [ 3 ] |
|  | import pandas as pd  data=[[1,’Multimedia’,98],[ 2,’CS’,95],[ 3,’Networking’,88]] df=pd.DataFrame(data,columns=[‘Rno’,’Name’, ‘Marks’])  ***(1 mark for each correct python statement)*** |  |
|  | Write a program in Python Pandas to create the following DataFrame ‘CRICKET’.    Write Python code to perform the following operations on the DataFrame:   1. Add the scores of ODI and T20 and assign to column “TotalScore”. 2. Display Name and ODI columns of the DataFrame. 3. Remove column Test from the Dataframe. | [ 3 ] |
|  | |  | | --- | | 1. data[‘GrandScore’]=data[‘ODI’]+data[‘Test’] | | 1. print(data[[‘ODI’,’Test’]]) | | 1. print(data.drop(‘Test’,axis=1))   or  data.drop(‘Test’,axis=1,inplace=True)  ***( 1 mark for each corrected answer)*** | |  |
|  | **Suhana celebrated her birthday with her family. She was excited to share the moments with her friend Dev. She uploaded selected images of her birthday party on a social networking site so that Dev can see them. After few days, Suhana had a fight with Dev. Next morning, she deleted her birthday photographs from that social networking site, so that Dev cannot access them. Later in the evening, to her surprise, she saw that one of the images which she had already deleted from the social networking site was available with their common friend Gayatri. She hurriedly enquired Gayatri “Where did you get this picture from?”. Gayatri replied “Dev forwarded this image few minutes back”.**  Help Suhana to get answers for the following questions. Give justification for your answers so that Suhana can understand it clearly.   1. How could Dev access an image which I had already deleted? 2. Can anybody else also access these deleted images? 3. Had these images not been deleted from my digital footprint?   **OR**  What do you understand by plagiarism? Why is it a punishable offence? Mention any two ways to avoid plagiarism. | [ 3 ] |
|  | 1. When you perform any transaction on the internet it leaves a digital footprint. There few websites and resources that can be access to get the deleted items. 2. Yes, all marked friends and tagged individuals can see them. 3. There are certain data which remain in digital footprint even files are deleted, cannot be deleted from my digital footprint.   ***(1mark for each corrected answer)***  Or  **What is Plagiarism?**   * Plagiarism is defined as stealing or presenting **someone’s ideas** or words of another author as your own. * There are a lot of people who steal the **original content**and don’t give credit to the real author or writer and thus commit plagiarism. * Even if you copy the ideas with the author’s consent, it’s still plagiarism.   **Why is it a punishable offense?**   1. Plagiarism is literally equal to **theft and fraud** since you are stealing someone’s content and pretending that it is your own. 2. That is why it is punishable in all universities and considered illegal by the copyright law of different countries.   ***( 1 mark each corrected output)*** |  |
|  | Consider a MySQL table ‘product’    ***Write SQL queries for the following:***   * + 1. Display maximum PROD\_QTY.     2. Display the value of each product where the value of each product is calculated as PROD\_PRICE \* PROD\_QTY     3. Display average PROD\_PRICE.   **OR**  Write any three differences between Single\_row functions and Aggregate functions. | [ 3 ] |
|  | * 1. **SELECT MAX(PROD\_QTY) FROM product;**   **(ii) SELECT PROD\_PRICE\*PROD\_QTY AS ‘Value’ FROMproduct;**   * 1. **SELECT AVG(PROD\_PRICE) FROM product;**   **OR**   |  |  | | --- | --- | | **SinglerowFunctions** | **Multiplerowfunctions /AggregateFunctions** | | Itoperatesonasingle rowat atime. | Itoperatesonmultiplerows. | | Itreturnsone result perrow | Itreturnsone result for multiplerows. | | It can be used in Select, Where, andOrder byclause. | Itcanbeusedin theselectclauseonly. | | Math, String and Date functions areexamplesofsinglerowfunctions. | Max(),Min(),Avg(),Sum(),Count()andCount(\*)  areexamplesofmultiplerowfunctions. | |  |
|  | **SECTION D** |  |
|  | Write suitable SQL query for the following:   * 1. To display names “Mr. James” and “Ms. Smith” in lower case.   ii) To display current date and time.  iii) To extract date from a given datetime value ‘2020-12-21 09:30:37’.  iv) To remove trailing spaces from string “ Technology Works ”  v) To compute the remainder of division between 125 and 17.  **OR**  Explain the following SQL functions using suitable examples.   * 1. DAYNAME ()   ii) LENGTH ()  iii) POWER ()  iv) AVG ()  v) MID() | [ 5 ] |
|  | * 1. select lower(“Mr. James”), lower(“Ms. Smith”);   (ii) select now();   * 1. select date(“2020-12-21 09:30:37”);   (iv) select rtrim(“ Technology Works ”);   * 1. select mod(125,17);   **OR**  **i)DAYNAME ()**  The DAYNAME() function returns the weekday name for a given date.  SELECT DAYNAME(“2017-06-15 09:34:21”);  Thursday  **ii)LENGTH ()**  The LENGTH() function returns the length of a string (in bytes).  **iii)POWER ()**  The POWER() function returns the value of a number raised to the power of another number.  SELECT POWER(8, 3);  **iv)AVG ()**  The AVG() function returns the average value of a numeric column.  SELECT AVG(column\_name)  FROM table\_name  WHERE condition;  v) MID()  The MID() function extracts a substring from a string (starting at any position).  SELECT MID(“INFORMATICS PRACTICES”, -5, 5) AS ExtractString;TICES |  |
|  | Chanakya University is setting up its academic blocks at Dehradun and is planning to set up a network. The University has 3 academic blocks and one Human Resource Centre as shown in the diagram below:    Centre-to-Centre distances between various blocks/centre is as follows:  Number of computers in each of the blocks/centres is as follows:    (i) Suggest the most suitable place (i.e., block/centre) to install the server of this University  with a suitable reason.  (ii) Suggest an ideal layout for connecting these blocks/centres for a wired connectivity.   * 1. Which device will you suggest to be placed/installed in each of these blocks/centres to   efficiently connect all the computers within these blocks/centres?  (iv) Suggest the placement of Repeater in the network with justification.  (v) The university is planning to connect its admission office in Delhi which is more than   1,250 km from the university. Which type of network out of LAN, MAN or WAN will be  formed? Justify your answer. | [ 5 ] |
|  | Ans:-  i.Most suitable place to install the server is HR centre as this centre has maximum number of computers  ii.    iii.Switch  iv.  Law block to Technology block  Law block to HR Centre  Repeater may be placed when the distance between 2 buildings is more than 70 metres.  v.WAN, as the given distance is more than the range of LAN and MAN.  ( 1 mark for each correct answer) |  |
|  | Write the code to draw a bar chart by importing appropriate package:  1. The title of the bar chart is ‘ FIFA World Cup’  2. teams=[‘Qatar’, ‘Argentina’, ‘Saudi’, ‘Brazil’, ‘Kuwait’’] X-axis  3. runs=[4, 6, 3, 8, 2] as the values for y-axis  4. Label x-axis as ‘Teams’  5. Label y-axis as ‘Goals’  6. Plot the bar chart  7. Display the bar chart on the screen  **OR**  Modes of transport used by students at a school are given below:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **School Bus** | **Private Bus** | **Bicycle** | **Van** | **By Foot** | | 640 | 360 | 490 | 210 | 150 |   Write a Python script to draw a bar graph representing the above data and add appropriate title, legends x and y labels. | [ 5 ] |
|  | import matplotlib.pyplot as plt  teams=[‘Qatar’, ‘Argentina’, ‘Saudi’, ‘Brazil’, ‘Kuwait’’]  goals=[4, 6, 3, 8, 2]  plt.title(“FIFA World Cup”)  plt.xlabel(“Teams”)  plt.ylabel(“Goals”)  plt.bar(teams,goals)  plt.show()  ***( 5 marks for the corrected code)***  OR  import pandas as pd  import matplotlib.pyplot as m  d1={“TRANSPORT”:[‘School Bus’,’PrivateBus’,’Bicycle’,’Van’,’By Foot’],”USED\_BY”:[640,360,490,210,150]}  d2=pd.DataFrame(d1)  x=d2.TRANSPORT  y=d2.USED\_BY  m.plot(x,y,label=”DATA ANALYSIS”)  m.title(“TRANPORT RECORD”)  m.xlabel(“TRANSPORT”)  m.ylabel(“NUMBER OF STUDENTS USING”)  m.legend()  m.show()  ***( 5 marks for the corrected code)*** |  |
|  | **SECTION E** |  |
|  | Consider a table Employee with the following data:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **ENO** | **ENAME** | **SALARY** | **BONUS** | **DATEOFJOINING** | | E01 | Harsh Arora | 35000 | NULL | 02-11-2020 | | E02 | Nilesh Boob | 55000 | 32.34 | 16-03-2008 | | E03 | Khushboo Burat | 70000 | Null | 18-09-2020 | | E04 | Naveen Rathi | 65000 | 21.54 | 31-07-2008 | | E05 | Kunal Verma | 78000 | 67.89 | 05-02-2020 | | E06 | Rajpal Singh | 60000 | 56.87 | 09-07-2009 | | E07 | Leena Singh | 78000 | 67.89 | 15-19-2020 |   **Write SQL queries using SQL functions to perform the following operations:**   1. Display employee name and bonus after rounding off to zero decimal places. 2. Display the position of occurrence of the string “ee” in employee names. 3. Display total salary of Nilesh, Khushboo and Leena.   **OR (Option for part iii only)**  Write a query to display year wise average salary. | [1+1+2] |
|  | 1. SELECT ENAME, ROUND(BONUS,0) FROM EMPLOYEE;   ***( ½ mark for Select and ½ mark for From)***   1. SELECT INSTR(ENAME,’EE’) FROM EMPLOYEE;   ***( ½ mark for Select and ½ mark for From)***   1. SELECT SUM(SALARY) FROM EMPLOYEE WHERE ENAME IN(“NILESH”, “KHUSHBOO”,”LEENA”);   ***( 1 mark for Select and 1 mark for Where clause)***  **OR (Option for part iii only)**  SELECT YEAR(DATEOFJOINING),AVG(SALARY) FROM EMPLOYEE GROUP BY YEAR(DATEOFJOINING);  ***( 1 mark for Select and 1 mark for Group by clause)*** |  |
|  | Mr. Ankit is working in an organization as data analyst. He uses Python Pandas and Matplotlib for the same. He got a dataset of the passengers for the year 2010to 2012 for January, March and December. His manager wants certain information from him, but he is facing some problems. Help him by answering few questions givenbelow:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | **Year** | **Month** | **Passenger(I)** | **Passenger(II)** | **Code** | | **A** | 2010 | Jan | 25 | 12 | A01 | | **B** | 2010 | March | 50 | 5 | A02 | | **C** | 2012 | Jan | 35 | 13 | A03 | | **D** | 2010 | Dec | 55 | 17 | A04 | | **E** | 2012 | Dec | 65 | 13 | A05 | | **F** | 2015 | Jan | 34 | 23 | A08 |  1. Predict the output of the following python statement: 2. df.shape 3. df[1:3] 4. Write Python statement to display the data of Month column of indexes C to E.   **OR (Option for part B only)**  Write Python statement to compute and display the difference of data of Passenger(I) column and Passenger (II) column of the above given DataFrame. | [1+1+2] |
|  | 1. (6,5) ***( 1 Mark for correct answer)***  |  |  |  | | --- | --- | --- | | 1. . | **Month** | **Passenger(I)** | | Jan | 25 | | March | 50 | | Jan | 35 | | Dec | 55 | | Dec | 65 | | Jan | 34 |   ***( 1 Mark for correct answer)*** |  |
|  | 1. print(df.loc[‘C’:’E’,’Month’]   ***( 1 Mark for loc() and 1 mark for rows and columns)***  OR   1. print(df[‘Passenger1’]- df[‘Passenger2’])   ***( 2 Mark for correct answer)*** |  |

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