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| **PB1/IPHAK/1222/A 05-DEC-2022** | | |
| **PREBOARD EXAMINATION I (2022-23)-** | | |
| **Grade 12-IP(H) -Answer Key** | | |
|  | **SECTION A** |  |
| 1 | Trademark | 1 1 |
| 2 | Aggregate functions | 1 |
| 3. | Star | 1 |
| 4. | CC, GPL | 1 |
| 5. | Drop table activity | 1 |
| 6. | Static websites are ones that are fixed and display the same content for every user, usually written exclusively in HTML. | 1 |
| 7. | Plt.show() | 1 |
| 8. | Columns | 1 |
| 9. | Switch | 1 |
| 10. | Gr.drop(‘Grade’, axis=1) | 1 |
| 11 | blind carbon copy. | 1 |
| 12. | 1. rows | 1 |
| 13. | There were Null values | 1 |
| 14. | Instead of where having to be used | 1 |
| 15. | Now() | 1 |
| 16. | 0 NaN  1 122  2 233  3 NaN | 1 |
| 17. | 9 10  6 7  3 4  0 1 | 1 |
| 18. | 1. Both A and R are true and R is the correct explanation for A | 1 |
| 19 | import pandas as pd  S=pd.Series(list('Wisdom’))  print(S.head(3))  (1 Mark for creating correct the series correctly) (½ Mark for writing correct import statement) (½ Mark for writing correct statement to display the first three alphabets) | 2 |
| 20 | VoIP stands for Voice over Internet Protocol.  It is an Internet service which makes audio and video calls possible from any Internet connected device.  (1 Mark for writing correct expansion of VoIP) (1 Mark for writing correct usage of VoIP) | 2 |
| 21 | **Give the output**   1. **36** 2. **Select power(9, round(2.5)); 729** | 2 |
| 22 | Can we use Where clause after Group By clause ? Name the clause which is used to restrict the number of records returned by the Group By clause.  No  HAVING  (1 Mark for writing correct answer for the first part as No) (1 Mark for writing correct HAVING Clause) | 2 |
| 23 | Consider the following Series ‘s’  (i) Write a Python code to add 1 to all the elements.  (ii) Rewrite the above code to add 1 to all the elements assuming NaN to be value 0.  Ans   1. s1 = s + 1   print(s1)   1. (ii) s.add(1,fill\_value=0)   print(s) 1 mark each for correct answer. | 2 |
| 24 | Given here is a Dataframe of Sales data of four months stored with name sales\_df.   1. Write a Python code to find total sales of July month. 2. Write a Python code to add the sales of August month with [70,94,80,93] data.   Ans   1. print(sales\_df.sum().loc[‘July’]) 2. sales\_df.insert(4,column="August",value=[70,94,80,93] )   1 mark each for above or any other correct line(s) of code | 2 |
| 25 | Write any four net netiquettes you should follow while working with Internet.  Be Precise  Be Polite  Be Credible  Be Secure  **Be reliable**  **(1/2 mark for each** net netiquettes) | 2 |
|  | **SECTION C** |  |
| 26. | Consider the following Dataframe happy\_df created using following command  happy\_df=pd.read\_csv("Dataset3.csv")   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Country | Region | Happiness Rank | Happiness Score | Family | | Switzerland | Western Europe | 1 | 7.587 | 1.34951 | | Iceland | Western Europe | 2 | 7.561 | 1.40223 | | Denmark | Western Europe | 3 | 7.527 | 1.36058 | | Norway | Western Europe | 4 | 7.522 | 1.33095 | | Canada | North America | 5 | 7.427 | 1.32261 |  1. The command to display first five rows of the above Dataframe. 2. Write the command to display number of rows and columns of the above Dataframe 3. Which of the following commands would display maximum value of every column?   Ans  (i) print(happy\_df.iloc[0 : 5 ] )  (ii) print(df.shape)  (iii) print(happy\_df.max()) | 3 |
| 27. | Find the Output of following :  (i) select pow(length(“Team”),instr(“hello”,’l’)); Ans **64**  (ii) select round(4567.132,-1); **Ans 4570**  (iii)select day(‘2020-04-09’); **Ans 09**  **( 1 mark each for correct answer)** | 3 |
| 28. | What do you understand by plagiarism? Why is it a punishable offence? Mention  any two ways to avoid plagiarism.  Plagiarism is punishable in a court, as it is seen as an infringement of copyrights, just like simulating fraud. Plagiarism is not a crime if it is done in a way that does not infringe on the copyright of the source. However, if it violates copyright laws, plagiarism becomes criminal.  1. Take careful notes on what you read and where you find ideas:  **2. Learn how to cite.**  Your best defense against committing plagiarism is knowing how and when to cite all types of sources.  **3.  Review your paper.** Ask yourself:Where did this idea come from?Are the words my own? | 3 |
| 29. | Write the SQL command to create a table named student having following structure    Ishrar wants to execute the following commands but SQL showing error msg. Explain why  Insert into student(StudentID,Name,Class,Stream) values(44,”Ishan”, “XII”, “Non-Med”); | 3 |
| 30. | Consider the below mentioned table of ‘CLOTH’  Write the commands for the following:   1. Display the description after removing leading spaces if any.   Select trim(description) from cloth;   1. Display number of characters taken by each description.   Select length(description) from cloth;   1. Display the day of the LAUNCHDATE. Eg. ‘Monday’, ’Tuesday’ etc   Select dayname(LAUNCHDATE.) from cloth; | 3 |
| 31. | Create the table shown below and answer the queries that follow  Relation – Student   1. Display average Fee for semester I and II.   Select semester,avg(fee) from student where semester in (‘I’,’II’)   1. Display age of eldest student in the class   Select min(D\_O\_B) from student;   1. Display the number of available branches.   Select count(distinct branch) from student   1. Display the total number of students for each semester   Select semester, sum(fee) from student group by semester;   1. Display the number of students in first semester.’   Select count(\*) from student where semester=’I’; | 5 |
| 32. | Software Development Company has set up its new center at Raipur for its office and web based activities. It has 4 blocks of buildings named Block A, Block B, Block C, Block D.   1. Block C would be the most suitable place to house server as it has maximum   number of computers.  (ii) The most suitable layout would beTopology : Star/Tree  (iii) Modem should be placed where the server is therefore it should be placed at BlockC.  (iv) Dynamic website as the dynamic website can alter based on customer’s choice.  (v) WAN as the distance between the two locations would be more than 100KM  1 mark for correct answer. | 5 |
| 33 | Consider the following graphs . | 5 |
|  | SECTION E |  |
| 34. | Write a Python program to   1. Create the above Dataframe from a csv file named housing.csv and display it. Import necessary libraries. 2. Display the houses having 2 bathrooms. 3. Add a column tax which is 10% of price (given in lakhs)   import pandas as pd # ½ mark  housing\_df = pd.read\_csv("housing.csv") # 1 Mark  print(housing\_df) # ½ mark  print(housing\_df[housing\_df.loc[:,'bath']==2]) # 1Mark  housing\_df[‘Discount’]=housing\_df['price']\*100000\*.1 # 1 Mark | 2+1+1 |
| 35 | Consider the table charity. Write the sql query     1. Display First 2 characters of City and Person ID. 2. Display Last name, contribution and a third column which has contribution divided by 10. Round it to two decimal points. 3. Display Last Names and First names of people who have "at" in the second or third position in their first names. 4. Select left(city,2),p\_id from charity;(1 mark) 5. Select lastname,contribution,round(contribution/10,2) from charity;(1 mark) 6. Select firstname, lastname from charity where instr(firstname,’at’)=2 or instr(firstname,’at’)=3;(2 mark) | 1+1+2 |

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