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| **FT/1P(H)QP/1221/A 20-SEP-2021** | | | | |
| **FIRST TERM EXAMINATION (2021-22)** | | | | |
| **Subject: INFORMATICS PRACTICES**  **Grade: XII** | | Max. Marks:35Time:90 Mnts | | |
| **Name:** | | | **Section:** | **Roll No:** |
| **General Instructions:**   * **The paper is divided into 3 Sections- A, B and C.** * **Section A, consists of Question 1 to 25 and student need to attempt 20 questions.** * **Section B, consists of Question number 26 to 49 and student need to attempt 20 questions.** * **Section C, consists of Question number 50 to 55 and student need to attempt 5 questions.** * **All questions carry equal marks** | | | | |
|  | **Section A** | | | |
|  | Which of the following functions is used to create a line chart ?   * 1. line( )   2. plot( )   3. chart()   4. plotline( ) | | | |
| **2.** | Which is a python library used for used for analysing data?   1. matplotlib 2. pandas 3. numby 4. matplot | | | |
| **3.** | Which amongst the following is an example of open source operating system?   1. Windows 2. Firefox 3. Safari 4. Linux | | | |
| **4.** | To display first element of a Series object S, you will write   1. S[:] 2. S[0] 3. S[1] 4. S[:2] | | | |
| **5.** | To display first four elements of a Series object S, you may write   1. S[:3] 2. S[:4] 3. S[3:] 4. all of these | | | |
| **6.** | Pandas object that cannot grow in size.   1. Dataframe 2. Panel 3. Series 4. None of these | | | |
| **7.** | PNG is an open source \_\_\_\_\_\_\_\_\_\_\_\_  a. Image Format  b. File Format  c. Internet Format  d. Html Format | | | |
|  | You are planning to go for a vacation. You surfed the Internet to get answers for the following queries: Which of your actions might have created a digital footprint?  a. Weather conditions  b. Availability of air tickets and fares  c. Places to visit  d. Best hotel deals | | | |
|  | The axis 0 identifies a dataframe's  a. row  b. columns  c. values  d. datatype | | | |
|  | Which of the following is not an attribute of pandas data frame?  a. length  b. T  c. Size  d. shape | | | |
|  | Suhana is down with fever. So she decided not to go to school tomorrow. Next day, in the evening she called up her classmate, Shaurya and enquired Notes about the computer class. She also requested him to explain the concept. Shaurya said, “Mam taught us how to use strings in python”. Further, he generously said, “Give me some time, I will email you the material which will help you to understand tuples in python”. Shaurya quickly downloaded a 2-minute clip from the Internet explaining the concept of tuples in python. Using video editor, he added the text “Prepared by Shaurya” in the downloaded video clip. Then, he emailed the modified video clip to Suhana. This act of Shaurya is an example of:  a. Fair use  b. Hacking  c. Copyright infringement  d. Cyber crime | | | |
|  | Which among the following options can be used to create a DataFrame in Pandas ?  (a) A scalar value  (b) An ndarray  (c) A python dict  (d) All of these | | | |
|  | While accessing the column from the data frame, we can specify the column name. In case  column does not exist, which type of error it will raise:  a. Key Error  b. Syntax Error  c. Name Error  d. Runtime Error | | | |
|  | To delete a row from a DataFrame, you may use  a. remove  b. delete  c. drop  d. cancel | | | |
|  | To iterate over horizontal subsets of dataframe,  a. iterate( )  b. iterrows( )  c. itercols( )  d. iteritems( ) | | | |
|  | A social science teacher wants to use a pandas series to teach about Indian historical  monuments and its states. The series should have the monument names as values and state  names as indexes which are stored in the given lists, as shown in the code. Choose the  statement which will create the series:  import pandas as pd  Monument=['Qutub Minar','Gateway of India','Red Fort','TajMahal']  State=['Delhi','Maharashtra','Delhi','Uttar Pradesh']  a. S=df.series(Monument,index=State)  b. S=pd.Series(State,Monument)  c. S=pd.Series(Monument,index=State)  d. S=pd.series(Monument,State) | | | |
|  | What will be the output for the following code ?  import pandas as pd  S = pd. Series([1,2,3,4,5],index = ['a', 'b', 'c', 'd', 'e'])  print ( s[ 'b'] )  a. 1  b. 2  c. 3  d. 4 | | | |
|  | What is the minimum number of arguments required for plot() function in matplotlib?  a. 1  b. 2  c. 3  d. 4 | | | |
|  | The function used to give title to a graph is \_\_\_\_\_\_\_\_\_  a. plt.show()  b. plt.plot()  c. plt.title()  d. plt.tilt() | | | |
|  | Which command is used to show a chart:   * 1. chartshow()   2. show()   3. display()   4. showchart() | | | |
|  | Assuming the given series, named stud, which command will be used to print 5 as  output?  Amit 90  Ramesh 100  Mahesh 50  john 67  Abdul 89  Name: Student, dtype: int64  a. stud.index  b. stud.length  c. stud.values  d. stud.size | | | |
|  | Which of the following statement is false:   1. DataFrame is size mutable 2. DataFrame is value mutable 3. DataFrame is immutable 4. DataFrame is capable of holding multiple types of data | | | |
|  | D1[ : ] = 0 , will set \_\_\_\_\_\_\_\_\_\_ values of a DataFrame ‘D1’ to 0.  a. Only First Row  b. Only First Column  c. All  d. None of the above | | | |
|  | 97. The following statement will \_\_\_\_\_\_\_\_\_  df = df.drop(['Name', 'Class', 'Rollno'], axis = 1)  #df is a DataFrame object  a. delete three columns having labels ‘Name’, ‘Class’ and ‘Rollno’  b. delete three rows having labels ‘Name’, ‘Class’ and ‘Rollno’  c. delete any three columns  d. return error | | | |
|  | Feasible method (s) to manage e-waste:  a. Reduce  b. Reuse  c. Recycle  d. All of the above | | | |
|  | **Section B** | | | |
|  | PANDAS stands for \_\_\_\_\_\_\_\_\_\_\_\_\_  a. Panel Data Analysis  b. Panel Data analyst  c. Panel Data  d. Panel Dashboard | | | |
|  | When we create a series from dictionary then the keys of dictionary become \_\_\_\_\_\_\_\_\_\_\_\_  a. Index of the series  b. Value of the series  c. Caption of the series  d. None of the series | | | |
|  | Which of the following is type of Digital Footprints?  a. Active digital footprints  b. Past digital footprints  c. Both of the above  d. None of the above | | | |
|  | The digital data trail we leave online unintentionally is called \_\_\_\_\_  a. Active digital footprints  b. Passive digital footprints  c. Current digital footprints  d. None of the above | | | |
|  | Which of the following activity is an example of leaving Active digital footprints?  a. Surfing internet  b. Visiting a website  c. Sending an email to friend  d. None of the above | | | |
|  | IPR stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_  a. Indian Property Right  b. Intellectual Property Right  c. Intelligent Property Right  d. Intellectual Property Resource | | | |
|  | Intellectual Property is legally protected through \_\_\_\_  a. copyright  b. patent  c. registered trademark  d. All of the above | | | |
|  | The \_\_\_\_\_\_\_\_\_\_\_\_ include right to copy (reproduce) a work, right to distribute copies of the work to the public, and right to publicly display or perform the work.  a. Copyright  b. Patent  c. Createright  d. None of the above | | | |
|  | A patent protects an invention for \_\_\_\_\_\_\_\_\_\_\_ years, after which it can be freely used.  a. 10  b. 20  c. 30  d. 40 | | | |
|  | \_\_\_\_\_\_\_\_\_\_\_\_ browser come under FOSS.  a. Internet explorer  b. Chrome  c. Mozilla Firefox  d. None of the above | | | |
|  | Which of the following is cybercrime?  a. Hacking  b. Phishing  c. Spamming  d. All of the above | | | |
|  | Proprietary software is a software which is available \_\_\_\_\_\_\_\_\_  a. free of charge  b. on paying license fee  c. free for first year only  d. none of the above | | | |
|  | Gaining unauthorised access to a network or computer aur digital files with malicious intentions, is called\_\_\_\_\_\_\_\_\_  a. Cracking  b. Hacking  c. Banging  d. Phishing | | | |
|  | Fill in the blank to get the ouput as 3  import pandas as pnd  S1=pnd.Series([1,2,3,4], index = ['a','b','c','d'])  print(S1[\_\_\_\_\_\_\_\_\_\_\_])  a 2  b ‘c’  c both  d none | | | |
|  | An organisation purchases new computers every year and dumps the old ones into the local dumping yard. Write the name of the most appropriate category of waste that the organisation is creating every year, out of the following options   1. Solid Waste 2. Commercial Waste 3. E-Waste 4. Business Waste | | | |
|  | We can add a new row to a DataFrame using the\_\_\_\_\_\_\_\_\_\_\_\_\_ method  a. rloc[ ]  b. iloc[ ]  c. loc[ ]  d. None of the above | | | |
|  | Read the statements given below. Identify the right option from the following for Attribute  and method/function.  Statement A: Attribute always ends without parenthesis.  Statement B: Function/Method cannot work without arguments.  a. Both statements are correct.  b. Both statements are incorrect.  c. Statement A is correct, but Statement B is incorrect  d. Statement A is incorrect, but Statement B is correct | | | |
|  | Ritika is a new learner for the python pandas, and she is aware of some concepts of  python. She has created some lists, but is unable to create the data frame from the  same. Help her by identifying the statement which will create the data frame.  import pandas as pd  Name=['Manpreet','Kavil','Manu','Ria']  Phy=[70,60,76,89]  Chem=[30,70,50,65]  a. df=pd.DataFrame({"Name":Name,"Phy":Phy,"Chem":Chem})  b. d=("Name":Name,"Phy":Phy,"Chem":Chem)  df=pd.DataFrame(d)  c. df=pd.DataFrame([Name,Phy,Chem],columns=['Name',"Phy","Chem","Total"])  d. df=pd.DataFrame({Name:"Name", Phy :"Phy",Chem: "Chem"}) | | | |
|  | Difference between loc() and iloc().:  a. Both are Label indexed based functions.  b. Both are Integer position-based functions.  c. loc() is label based function and iloc() integer position based function.  d. loc() is integer position based function and iloc() index position based function. | | | |
|  | We should exhibit proper manners and etiquettes while being online. Choose the right  net etiquette (s) from the following:  a. Avoid Cyber Bullying  b. Respect Other’s Privacy  c. No Copyright violation  d. All of the above | | | |
|  | The data label associated with a particular value of Series is called its \_\_\_\_\_\_  a. Data value  b. Index  c. Value  d. None of the above | | | |
|  | Write the output of the following :  >>> S1=pd.Series(14, index = ['a', 'b', 'c'])  >>> print(S1)  a.  a 14  b 14  c 14  dtype: int64  b.  a 14  dtype: int64  c. Error  d. None of the above | | | |
|  | Write the statement to get NewDelhi as output using positional index.  import pandas as pd  S1 = pd.Series(['NewDelhi', 'WashingtonDC', 'London', 'Paris'],  index=['India', 'USA', 'UK', 'France'])  a. print(S1[0])  b. print(S1[‘India’])  c. Both of the above  d. print(S1.India) | | | |
|  | In given code dataframe ‘D1’ has \_\_\_\_\_ rows and \_\_\_\_\_\_ columns.  import pandas as pd  LoD = {“Name” : [“Amit”, “Anil”,”Ravi”], “RollNo” : [1,2,3]}  D1 = pd.DataFrame(LoD)  a. 3, 3  b. 3, 2  c. 2, 3  d. None of the above | | | |
|  | **Section C** | | | |
|  | Consider the following DataFrame df and answer any five questions from (50-55)  Name Mark1 Mark2  0 Aamir 22 33  1 Nuzut 42 52  2 Ishrar 34 23  3 Shahid 45 65  4 Furkan 23 56  5 Fatima 45 45  6 Rashid 34 45 | | | |
|  | Rhan wants to add a column called total that is sum of Mark1 and Mark2 , choose the right command to do so  a. df[‘Total’]=df[‘Mark1’+‘Mark2’]  b. df[‘Total’]=sum(Mark1,Mark2)  c. df[:]=df[‘Mark1’]+df[‘Mark2’]  d. df[‘Total’]=df[‘Mark1’]+df[‘Mark2’] | | | |
|  | To display Name and Total   1. print(df(‘Name’,’Total’) 2. print(df[[‘Name’,’Total’]]) 3. print(df[‘Name’,’Total’]) 4. print(df(name,total)) | | | |
|  | Which of the following statement/s will give the exact number of values in each column of the dataframe?   1. print(df.count()) 2. print(df.number()) 3. print(df.count) 4. print(df.count(axis=’index’)) | | | |
|  | Which of the following command will display the column labels of the DataFrame?   1. print(df.columns()) 2. print(df.column()) 3. print(df.column) 4. print(df.columns) | | | |
|  | Write down the command that will give the following output.  Name Mark1 Mark2  0 Aamir 22 33  1 Nuzut 42 52  2 Ishrar 34 23  3 Shahid 45 65  4 Furkan 23 56  a. print(df.iloc[0:5])  b. print(df.loc[0:5])  c. Both  d. None | | | |
|  | Which command will be used to delete 3rd and 5th rows of the data frame  a. DF.drop([2,4],axis=0)  b. DF.drop([2,4],axis=1)  c. DF.drop([3,5],axis=1)  d. DF.drop([3,5]) | | | |

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