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| **A close-up of a sign  Description automatically generated** | | | |
| **UT/IPCAK/1223/A 6-NOV-2023** | | | |
| **UNIT TEST (2023-24)**  **Answer Key** | | | |
| **Subject: Informatics Practices**  **Grade: XII** | | Max. Marks:50Time:2½ hours | |
|  | **SECTION A** | |  |

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| --- | --- | --- |
|  | **b. Router** | [ 1 ] |
|  | 1. **reuse** | [ 1 ] |
|  | |  | | --- | | 1. Free and Open Software | | [ 1 ] |
|  | a. rows | [ 1 ] |
|  | |  | | --- | | 1. iterrows() | | [ 1 ] |
|  | |  | | --- | | 1. Static | | [ 1 ] |
|  | |  | | --- | | 1. Copyright | | [ 1 ] |
|  | b. IT Act 2000 | [ 1 ] |
|  | ii. Both A and R are true and R is not the correct explanation for A | [ 1 ] |
|  | ii. Both A and R are true and R is not the correct explanation for A | [ 1 ] |
|  | **PART B** |  |
|  | |  |  | | --- | --- | | **Add-on** | **Plug-in** | | Add-on refers to a program utility or a hardware unit that can be added to a computer for enhancing its capabilities. | Plug-in refers to a small add-on program that is used to extend the functionalities of the desktop program and web application. | | An add-on doesn’t work as a complete program. | A plug-in works as a complete program. | | Add-on is supported in Mozilla Firefox. | Plug-in is no longer supported in Mozilla Firefox. | | The usage of the add-on has a limitation, it only works in web browsers. | The plug-in, apart from the usage in web browsers, is also used to run files. | | Cards for memory, graphics, sound accelerations, and modem capability. | Adobe Flash Player, Unity Web Player, QuickTim | | [ 2 ] |
|  | Protect your computer and smartphone with strong, up-to-date security software. ...  Learn to spot spam and scams. ...  Use strong passwords. ...  Monitor your credit scores. ...  Review your credit score. ...  Freeze your credit. ...  Only use reputable websites when making purchases. ...  Stay alert.  ***(1 mark for explanation and 1 mark for measures)*** | [ 2 ] |
|  | E-waste is not bio-degradable. People can take e-waste to recycling centres. E-waste should not be dumped in landfills. One can sell old electronics to companies, individuals, and repair shops.  ***( 2 marks for 2 points)*** | [ 2 ] |
|  | In the **star topology,** all the computers connect with the help of a hub. This cable is called a central node, and all other nodes are connected using this central node. It is most popular on LAN networks as they are inexpensive and easy to install.  The **mesh topology** has a unique network design in which each computer on the network connects to every other. It is develops a P2P (point-to-point) connection between all the devices of the network. It offers a high level of redundancy, so even if one network cable fails, still data has an alternative path to reach its destination.  ***(1 marks for 1 point of difference and 1 mark for diagram)***. | [ 2 ] |
|  | Explain how to add legend in a graph. | [ 2 ] |
|  | Explain the terms Web Site and Web Server. | [ 2 ] |
|  | 1. df.iloc[1:4,1:2] 2. df[df['Name']=='Piyush']   ***(1 mark for each correct output)*** | [ 2 ] |
|  | **SECTION C** |  |
|  | 1. Add a new item named ‘Guava' having price 175.   Market.loc['3']=['Guava',175]  ii. Add a column called Margin with the following data: [80,13,50,30].  Market['Margin']= [80,13,50,30].  iii. Remove the column Margin.  Market=Market.drop('Margin',axis=1)  Give 1 mark each | [ 3 ] |
|  | 1. df['Grade']=[ ‘A’, ‘B’, ‘A’, ‘A’, ‘B’, ‘A’] 2. print (df.loc[3,['UT1','UT2']) 3. df.loc[7]=['Navya Jain',30,87,67,45,'A']   ***(1 mark for each correct python statement)*** | [ 3 ] |
|  | We call this type of activity as Digital Footprints  Two types: Active and Passive  Risk involved: It includes websites we visit emails we send, and any information we submit online, etc., along with the computer’s IP address, location, and other device specific details. Such data could be used for targeted advertisement or could also be misused or exploited.  (1 mark for naming the activity,1 mark for its types and 1 mark for mentioning any one risk | [ 3 ] |
|  | Ans IPR (Intellectual Property Rights) are the rights of the owner of information to decide how  much of the information is to be exchanged, shared or distributed.  Intellectual Property Rights are needed because :  ● It encourages individuals and businesses to create new software as well as improvingexisting applications.  ● Ensures new ideas and technologies are widely distributed.  ● Promotes investment in the national economy  (Any two needs)  ***( 1 mark for explanation of IPR and 2 marks for any 2 needs of protecting IPR)*** | [ 3 ] |
|  | **SECTION D** |  |
|  | (i) maximum number of computers.  (ii) The most suitable layout would be  Topology : Star/Tree  (iii) Modem should be placed where the server is therefore it should be placed  at Block C.  (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 WAN, as the given distance is more than the range of LAN and MAN.  ( 1mark for each correct answer) | [ 5 ] |
|  | Write a script to draw a graph by importing appropriate package: | [ 5 ] |
|  | Ans:-  A.  i. Nmae Designation  T102 Shyam Teacher  T103 Vinod Accountant  ii.    *( 1 mark for each correct output)*  B. STAFF.loc[(STAFF.Age>40)& (STAFF.Age<50),[‘Name’,’Designation’]] | [1+1+2] |

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