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| **Specialist Diploma In Industrial Internet of Things**  **Engineering Analytics & Machine Learning (ECSE202)** | | | Description: C:\Users\rajahk\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\Z7A7LSNK\big (2).jpg |
|  | | |  |
| **Name:** | **Class:** | | |
| **Admin No:** |  | | |

**Practical Test (Set A1)**

**Instructions to Candidates:**

* The duration of the practical test is 1 hour.
* This paper consists of 4 pages (including cover page)
* Answer ALL questions in this paper.
* You are to write all your answers on this set of question paper.

|  |  |
| --- | --- |
| **QUESTION ANSWERED** | **EXAMINER’S USE ONLY** |
| **MARKS** |
| **1** | **/ 2** |
| **2** | **/ 3** |
| **3** | **/ 5** |
| **TOTAL** | **/ 15** |

1. Write a function to accept a list and return two list. A list of unique positive numbers and also a list of the count of the unique positve number of the input list. Example: Lst=[-1,23,-5,9,6,-23,9] would return [23,9,6] and [1,2,1]

Also copy the code in the blank space below. [5 marks]

|  |  |
| --- | --- |
| Task | Verification by Tutor |
| Correct function definition and call |  |
| Demo with input list  Lst=[-1,23,-5,9,6,-23,9]  Answer:  [ ] |  |
| Demo with input list  Lst=[-2,33,-25,7,8,33,9,7,8,33,]  Answer:  [ ] |  |

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1. Load the human activity data from the file ‘har\_activity1.csv’.Perform the follows tasks:

|  |  |
| --- | --- |
| Task | Verification by Tutor |
| Read in the csv file and show the first 5 rows of data and there is no missing value in the data. |  |
| Show that there is no NA, Null or missing data |  |
| Find the average age of all woman  Answer:  [ ]  Find the average age of all man  Answer:  [ ] |  |
| Find user that height is between 1.65m to 1.80m (inclusive).  Answer:  [ ] |  |

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1. Based on the data in **Question 2**, plot scatter plot for y1 vs x1 for both ‘sitting’ and ‘standing’. Scale the data from 1 to 0.

[5 marks]

|  |  |
| --- | --- |
| Attribute | Verification by Tutor |
| Correct chart with point on graph for sitting in red and standing in cyan |  |
| Properly label both axis and chart title |  |
| Legend Position: lower right |  |

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