**DAILY ASSESSMENT FORMAT**

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| **Date:** | **05-Jun-2020** | **Name:** | **Vishwesh V Bhat** |
| **Course:** | **Course on Control Systems** | **USN:** | **4AL18EC059** |
| **Topic:** | 1. **Evaluation of initial and final conditions in RL, RC and R L C circuits.** | **Semester & Section:** | **4th SEM and ‘A’ SEC** |
| **Github Repository:** | **Vishwesh-V-Bhat-lockdwn-learnings** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **TOPICS COVERED:**   1. **The session one covered subjects related to evaluation of initial and final conditions in RL,RC and RLC circuits.** 2. **The session started off by considering the I(t) equations at t = 0 and t = infinity and the corresponding voltage equations for pure resistive circuit element. Saw the plot of Voltage vs time.** 3. **And we extended the learning to a RL circuitry by introducing an additional inductive element to plain resistive circuitry. And the I(t) was equated to see change in current w.r.t time. And similar to the previous, we saw equations for voltage in RL condition.** 4. **And we further extended the learning to a RC circuitry by introducing an additional capacitor element to plain resistive circuitry and saw the equations for I(t) and voltage.** 5. **And then RLC circuitry was introduced with I(t) and voltage equation. All four circuits were compared.** 6. **Problems were solved(fig 3 above).** |

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| **Date:** | **05 - Jun - 2020** | **Name:** | **Vishwesh V Bhat** | |
| **Course:** | **Python by Udemy** | **USN:** | **4al18ec059** | |
| **Topic:** | 1. **Using Jupyter Notebook**   **(Operations on text files using Pandas)** | **Semester & Section:** | **4th SEM & ‘A’ SEC** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session** | | | |
| **Loadng .txt file : (and some important operations).**  - Text to be loaded.  - The data frame   * We observe that the first line of the text file was considered as the header by default. * We change that by doing:   - “header = None”   * Now to assign a header/ to name the column:   - df6.columns = [“sl.no.”,”Countries”,”Number of local manufacturers”]  (The data in the above table are random and not verified, for testing code purpose only).   * We observe in the above data frame that there is a default indexing that starts from 0 and ends at 5(Left most column). * We can set any of the other columns as index. * Like this:   - df6.set\_index(“sl.no”)   * So we made the serial number column as the index for our data frame. * (Very Important) - We can access a selected portion of our data frame(table):     The above point is especially important while we are working with large data frames. To see that lets consider an excel sheet(90rows x 4cols):  - 90rows x 4cols excel sheet  Accessing the first 3 columns[RR no:, Unnamed: 1, Unnamed:2] and the first 13 rows[0 to 12]: | | | |