**DAILY ASSESSMENT FORMAT**

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| **Date:** | **05/06/2020** | **Name:** | **PRIYA P RAO** |
| **Course:** | **Network Theory** | **USN:** | **4AL18EC041** |
| **Topic:** | * **Series RLC Circuit** * **Parallel RLC Circuit** * **RL AND RC series circuits frequency response** | **Semester & Section:** | **4th sem ‘A’ section.** |
| **Github Repository:** | **Priya-Rao** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  **C:\Users\Pawan\Desktop\series.PNG**  **C:\Users\Pawan\Desktop\parallel phosor.PNG**  **C:\Users\Pawan\Desktop\33333.PNG** |
| Series RLC Circuit: C:\Users\Pawan\Desktop\series rlc circuit.PNG  **Resonance occurs in a series circuit when the supply frequency causes the voltages across L and C to be equal and opposite in phase**  **In this session I have studied about:**   * **How Series Resonance occurs in passive RLC series circuits and their use in RLC filter networks and designs.** * **For resonance to occur in any circuit it must have at least one inductor and one capacitor.** * **Resonance is the result of oscillations in a circuit as stored energy is passed from the inductor to the capacitor.** * **Resonance occurs when XL = XC and the imaginary part of the transfer function is zero.** * **At resonance the impedance of the circuit is equal to the resistance value as Z = R.** * **At low frequencies the series circuit is capacitive as: XC > XL, this gives the circuit a leading power factor.** * **At high frequencies the series circuit is inductive as: XL > XC, this gives the circuit a lagging power factor.** * **The high value of current at resonance produces very high values of voltage across the inductor and capacitor.** * **Series resonance circuits are useful for constructing highly frequency selective filters. However, its high current and very high component voltage values can cause damage to the circuit.** * **The most prominent feature of the frequency response of a resonant circuit is a sharp resonant peak in its amplitude characteristics.** * **Because impedance is minimum and current is maximum, series resonance circuits are also called Acceptor Circuits**   **Parallel RLC Circuit:**  **C:\Users\Pawan\Desktop\parallel rlc circuit.PNG**  **The Parallel RLC Circuit is the exact opposite to the series circuit.**  **In this session I have studied about:**   * **In a parallel RLC circuit containing a resistor, an inductor and a capacitor the circuit current IS is the phasor sum made up of three components, IR, IL and IC with the supply voltage common to all three.** * **Since the supply voltage is common to all three components it is used as the horizontal reference when constructing a current triangle.** * **Parallel RLC networks can be analysed using vector diagrams just the same as with series RLC circuits.** * **AC parallel circuit can be easily analysed using the reciprocal of impedance called Admittance.** * **Impedance: It is the effective resistance of an electric circuit or component to alternating current, arising from the combined effects of ohmic resistance and reactance.** * **Admittance is the reciprocal of impedance. (Y)** * **The impedance is a complex quantity consisting of a real part and an imaginary part.** * **The real part is the reciprocal of resistance and is called Conductance. (G)** * **The imaginary part is the reciprocal of reactance called Susceptance. (B)** * **It is expressed in complex form as: Y = G + jB** * **If we vary the frequency across the circuits there must become a point where the capacitive reactance value equals that of the inductive reactance and therefore,  XC = XL.** * **The frequency point at which this occurs is called resonance**   **RL AND RC series circuits frequency response:**  **In this session:**   * **I have seen demonstration of the time dependent response (exponential turning on and off) in RC or RL circuits, and how changing the resistance affects the time constant. We also demonstrated the oscillatory response in an LC circuit.** * **RC, RL and LC circuits are essential building blocks in many circuit applications.** * **For example, RC and RL circuits are commonly used as filters** * **They are also useful for electrical signal processing, for example, taking the derivative or integral of an electrical signal.** * **The LC circuit is a simple example of an electrical "oscillator" or resonance circuit and is a common component in circuits used for amplifiers, radio tuning, etc.**   **Comparision between Series RLC and Parallel RLC Circuit:**  **C:\Users\Pawan\Desktop\comparision.PNG** |

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| **Date:** | **05/06/2020** | **Name:** | **PRIYA P RAO** |
| **Course:** | **Python** | **USN:** | **4AL18EC041** |
| **Topic:** | **Building a Geocoder Web Service** | **Semester & Section:** | **4th sem ‘A’ section** |
| **Github Repository:** | **Priya-Rao** |  |  |

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| **AFTERNOON SESSION DETAILS** |
| **Image of session**  **C:\Users\Pawan\Desktop\....PNG** |
| **Application 10: Building a Geocoder Web Service:**  **In this session I have learnt about:**   * **Overview of the Output** * **Solution – Part 1** * **Solution – Part 2**   **Basically, it is a project-based topic where in Output of the project is briefed.** |