|  |  |  |  |
| --- | --- | --- | --- |
| **Department of Electrical Engineering**  **Assignment**  **Date: 20/08/2020**  **Course Details** | | | |
| **Course Title:** | Electrical Network Analysis | **Module:** | B-tech |
| **Instructor:** |  | **Total Marks:** | 30 |
|  |  |  |  |

**Student Details**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name:** |  | **Student ID:** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Q1 | (a) | For the circuit shown below, calculate the voltage V, the conductance G, and the power P.  C:\Users\Administrator\Desktop\2a.PNG | Marks 05 |
|  |
| (b) | A resistor absorbs an instantaneous power of when connected to a voltage source . Find I and R? | Marks 05 |
|  |
| Q2 | (a) | The current in a 4H inductor raises at a rate of 4A/s .Find the voltage across the inductor the energy stored in the magnetic field at after 2sec. | Marks 04 |
|  |
|  | (b) | A current waveform flowing through an inductor of 1mH is shown in the figure. Obtain and sketch the waveform of voltage across the inductor. |  |
| Marks 06 |
| Q3 | (a) | A series RLC circuit containing a resistance of 12Ω, an inductance of 0.15H and a capacitor of 100uF are connected in series across a 100V, 50Hz supply. Calculate the total circuit impedance, the circuits current, power factor and draw the voltage phasor diagram.  R=12 0hms,L=0.15H,C=100 micro Farad,Vs=100V,50HZ | Marks 07 |
|  |
| (b) | Write a short note on under damped ,over damped and under damped? | Marks 03 |
|  |

☺Good Luck☺