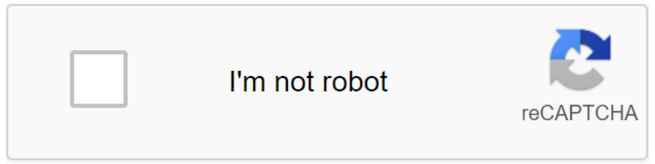

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Professor Merat's Spring 2004 Lecture Notes: Lecture 1 (1/12 - Course Overview and Information. Lecture 2 (1/14 - Unit; Entle notation; Lecture 3 (1/16) - Measure voltage and current. i-v characteristics; resistors; Lecture 4 (1/21) - More circuit elements: switch, voltage source, current source. Lecture 5 (1/23) - KCL and KVL; Lecture 6 (1/26) - Examples of combined constraints; Equivalence circuits – a combination of series and parallel resistance. Lecture 7 (1/28) - Equivalent Resistance; Lecture 8 (1/30) - Voltage and current dividers. Lecture 9 (part 2 of 2) - Fuse; Lecture 10 (2/4) - Computer Analysis of Circuits; Lecture 11 (part 2 of 6) - How to solve Cramer's linear equations. How to handle voltage sources in node voltage analysis Lecture 12 (2/9) - Mesh current technology. How to process the current source in a mesh current analysis. Lecture 13 (2/11) - Linear circuit; Unit output technology. Lecture 14 (2/13) - Turn off voltage and current source. Superposition. Lecture 15 (2/16) - Equivalent circuit between Tebenin and Norton. How to determine the equivalent circuit parameters of Tebenin and Norton. Lecture 16 (2/18) - Equivalent circuit between Tebenin and Norton. Load the line. Maximum power transfer. Lecture 17 (2/20) - Design considerations series of interface circuits, parallel and L sections; Transistor Lecture - Transistor Section 4.3 This course does not take up this material. Lecture 18 (2/23) - Writes loops and node equations for circuits with dependent sources; Lecture 19 (2/25) - Tebenin equivalent circuit for circuits with dependent sources. Introduction to OP AMP Lecture 20 (2/27) - OP AMPS: Non-Inverted Amplifier. Flip the amplifier. Lecture 21 (3/1) - OP AMPS: Samming Amplifier; Lecture 22 (part 3 of 3) - OP AMPS: Voltage followers and maximum available power. Circuits with multiple nodes or multiple OP AMPSs. Lecture 23 (part 3 of 5) - OP AMPS: Comparator. Instrumentation System Overview Lecture 24 (3/15) - Instrumentation System; Lecture 25 (3/17) - Basic Waveforms: Impulses, Unit Steps, Unit Lamps. Exponential waveforms and time constants. Basic sine wave waveforms. Lecture 26 (3/19) - Medium chord wave measurement: peak, peak peak. Fourier representation of the sine wave. Average power and RMS measurement. Lecture 27 (3/24) - Basic Inductors and Capacitors. Power and Energy Considerations in Inductors and Capacitors Lecture 28 (3/26) - Implementation of Integrators and IntegratorsUse OP AMPs and capacitors Lecture 29 (3/29) - Integrator/Differentiator Block Diagrams; Series and Parallel Capacitors/Indicators; Compulsory middle chord wave solution of the first differential equation (7.4); introduction of the festorator (8.1) Lecture 31 (4/2) - Introduction of the fesser (8.1); Adding and deseevering vectors. Example of converting a cenussored to a festorator Lecture 32 (part 4 of 5) - Using a fasser to add voltage and current. Derivatives of fasol;impedance;ohm's law, KCL, using KVL, to analyze a simple circuit using a face. Lecture 33 (part 4 of 7) - Use a faser to analyze more complex circuits. Provides an overview of the filter. Lecture 34 (4/9) - Frequency Response; Lecture 36 (4/14) - More Examples of Frequency Responses (12.2). In this course on April 18, typos (R2 instead of R1) were corrected. Lecture 37 (4/16) - Cascade and parallel connections of filters. Band pass and notch filters (12.3) Lecture 38 (4/19) - Step response; Lecture 40 (4/23) - Step Terning and Zero Input Response. Time constants for RC and RL circuits. Initial and Final Values (7.2)Lecture 41(4/26) - Time-dependent responses to circuit variables other than write state variables of time-dependent responses using initial and final values and time constants (7.3). Lecture X (x/xx) - Unused Lecture Notes: Section 7.5 Series RLC Circuits. Pdue University School of Electrical and Computer Engineering 0.Lecture Note 00 (Course Introduction) 1.Lecture Note 01 (Charging and Current) 2.Lecture Note 02 (Voltage, Power, Energy) 3.Lecture Note 03 (Source and Resistance) 4. Lecture Note 04 (Current Method of Kirchhoff and Voltage Method of Kirchhoff) 5.Lecture Note 05 (Analysis of Series, Parallel, And Series Parallel Resistance Circuits) 6.Lecture Note 06 (Re-Dependent Sources) Review, non-ideal source) 7.Lecture Note 07 (Node Analysis: Ground Voltage Source Case) 8.Lecture Note 08 (Node Analysis: Floating Voltage Source Case & Loop Analysis) 9.Lecture Note 09 (Loop Analysis) Continuum) 10.Lecture Notes 10 (Linearity, Overlapping, Proportional) 11.Lecture Notes 11 (Source Conversion) 12.Lecture Notes 12 (Tebenin and Norton Theorem) 13. Lecture Note 13 (Tenin and Norton Theorem Cont'd) 14.Lecture Note 14 (Maximum Power Transmission Theorem) 15.Lecture Note 15 (Inductors and16. Lecture Note 16 (Capacitance) 17.Lecture Note 17 (Inductance/Capacitance Combination) 18.Lecture Note 18 (First Order RC and RL Circuit: Zero Input Response) 19.Lecture Note 19.Lecture Note 19 (First Order RC and RL Circuits: Step Responses) 20.Lecture Notes 20 (Sequential RC and RL Circuits: Linearity and Overlapping) 21.Lecture Notes 21 (Sequential RC and RL Circuits: General Solutions for Voltage Currents, Waveform Generation) 22.Lecture Note 22 (Secondary Circuit: LC Undumped Case) 23.Lecture Note 23 (Secondary Circuit: RLC Source Free Case) 24.Lecture Note 24 (Secondary Circuit: RLC Constant Input) 25.Lecture Note 25 (Secondary Circuit: RLC Constant Input Details) 26.Lecture Note 26 (Op amp Circuit) 27. Lecture Note 27 (Op Amp Circuit: Addition, Difference, Addition, Multiple Stages) 28.Lecture Note 28 (Op Amp Circuit: Saturation and Tebenin Circuit) 29.Lecture Note 29 (Op Amp Circuit: RC Op-amp Circuit) 30.1 Lecture Note 30 .1 (medium chord wave steady-condition analysis: complex number review) 30.2 Lecture note 30 (medium chord steady-condition analysis: complex coercion function) 31.Lecture note 31 (medium chord wave normal analysis: phaser: KVL, KCL, Fesol Ohm's Law) 32.Lecture Note 32 (Medium Chord Wave Normal Analysis: Impedance/Admisans of Two Terminal Circuits) 33.Lecture Note 33 (Middle Chord Wave Using Fesdo Method) Regular Analysis)34.Lecture Note 34 (Medium chord wave steady-steady analysis using the Phosor method Cont'd) 35.Lecture Note 35 (Medium chord wave normal analysis: Frequency response) 36.Lecture Note 36 (Power Calculation: Instantaneous and Average Power) 37.Lecture Note 37 (Power Calculation: Effective Value and Average Power of SSS) 38.Lecture Note 38 (Power Calculation: Complex Power and Maintenance of Complex Power)3 9.Lecture Note 39 (Power Calculation: Power Ratio and Its Improvement) 40.Lecture Note 40 (Power Calculation: Maximum Power Transmission Theorem of SSS) 41.Lecture Note 41 (Review) eE201 2013 © Designed by Iris Course: B.TechGroup: Circuit Design Circuit Analysis Problem Circuit Analysis Circuit Analysis Circuit Analysis Circuit Analysis Method Circuit Analysis Problem and Answer Circuit Analysis Anna University Notebook Circuit Analysis Circuit Analysis Handwritten Notebook Circuit Analysis Lecture Lecture Note Circuit Analysis Note Pdf Circuit Analysis Previous Year Question Paper Circuit Analysis Question Bank Circuit © Analysis Question Bank Circuit All Rights Reserved. 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