Lesson Plan

Name of faculty : Mr. Puneet Chawla

Discipline : Electrical Engineering

Semester : 8th

Subject : CMPS Lab (ET-424E)

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| **Week** | **Practical** | **Date of Actual covered**  | **Signature** |
|  |  |  | **Practical** **Day** | **Topic** | **Concerned teacher**  | **HOD**  | **DP** |
| 1st | 1 |  | 1 | Develop a program to do the following mathematical operations.* 1. Transpose of a matrix
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| 4 |  |
| 2nd | 5 |  | 2 | Develop a program to do the following mathematical operations.1. Multiplication of two matrices
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| 8 |  |
| 3rd | 9 |  | 3 | Develop a program to do the following mathematical operations.1. Addition & subtraction of two matrices.
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| 12 |  |
| 4th | 13 |  | 4 | The demand estimate is the starting point for planning the further electric power Supply. The consistency of demand growth over the year has led to numerous attempts to fit mathematical curves of this trend. One of the simplest curves is **P = Po exp {a (t** **–** **t0)}** Where **a** is the average per unit growth rateP is the demand in year „t‟ in GW P0 is the given demand at year t0 in GW., a = 3.4 percentDevelop a table to compute the system demand from 1984 to 2005 on yearly basis.Calculate also the average yearly demand over this period. |  |  |  |  |
| 14 |  |
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| 5th | 17 |  | 5 | You have been given with network data consisting of element no. starting node & end node. Develop a program to make element node incident matrix. A and covert it into Ybus as incidence matrix. A by choosing any bus as reference. |  |  |  |  |
| 18 |  |
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| 6th | 21 |  | 6 | Write a program to formulate Y-Bus by non singular transformation **Y Bus = [A]** **t[y] [A],** |  |  |  |  |
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| 24 |  |
| **7th** |  **1st Minor Test** |  |  |  |  |
| 8th  | 25 |  | 7 | Viva-Voice – 1st |  |  |  |  |
| 26 |  |
| 27 |  |
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| 9th | 29 |  | 8 | Develop a program to solve a set of 4 simultaneous liner equations using Gaussian Elimination method |  |  |  |  |
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| 10th | 33 |  | 9 | Develop a program to calculate Zbus of a given network using building algorithm. Assume that no mutual coupling is involved in between the different elements. |  |  |  |  |
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| 11th | 37 |  | 10 | The Gauss Seidel method is also known as the method of successive displacements. Use Gauss Seidel method to find the solution of following equations |  |  |  |  |
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| 12th | 41 |  | 11 | You have been given with a 6 bus system. Apply load flow technique using Gauss Seidel method to solve up to two iterations. |  |  |  |  |
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| 13th | 45 |  | 12 | Develop a program to find Eigen values for given Matrix |  |  |  |  |
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| 48 |  |
| **14th** | **2nd Minor test** |  |  |  |  |
| 15th | 49 |  | 13 | Viva-Voice – 2nd |  |  |  |  |
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|  | 52 |  |