**Specimen of lesson plan**

**Name of the Faculty : Mr karan singh for theory**

**Discipline :**

**Sem : 4th**

**Subject : ES& MEE**

**Work load :15 week lecture -05**

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| **Week** | **Lecture day** | **Theory** | **Practical topic** |
| **1st** | **1st** | Introduction of various energy source  |
| **2nd** | Importance of non conventional source of energy  |
| 3rd | Present scenario ,future prospects and economic criteria  |
| **4th**  | Class test  |
| **5th** | Revision of first chapter  |
| **2nd** | **6th** | Introduction of solar energy  |
| **7th** | Principle of conversion of solar radiation into heat  |
| **8th** | Photo voltaic cell, electricity generation  |
| **9th**  | Application of solar energy like solar water  |
| **10th**  | Solar furnaces , solar cookers  |

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| **Week** | **Lecture day** | **Theory** |  |  |
| **3rd** | **11th** | Solar lighting Solar pumping  |  |  |
| **12th** | Introduction of bio energy  |  |  |
| 13th | Bio mass conversion technologies  |  |  |
| **14th** | Wet and dry processes |  |
| **15th** | Method for obtaining energy from biomass  |
| **4th** | **16th** | Power generation by using gasifiers  |  |  |
| **17th** | Introduction of wind energy  |  |  |
| **18th** | Windmills , electricity generation from wind type  |  |  |
| **19th**  | Local control , energy storage  |  |
| **20th**  | Class test  |
| **5th** | **21th**  | Introduction to geo thermal and tidal energy  |  |  |
|  **22th** | Geo-thermal source |  |  |
|  **23th** | Ocean thermal electric conversion  |  |  |
| **24th** | Open & close cycle |
| **25th** | Hybrid cycle |

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| **Week** | **Lecture day** | **Theory** |  |  |
| **6th** | **26th** | Prime movers for geo-thermal energy conversion |  |  |
| **27th** | Steam generation & electricity generation |  |  |
| 28th | Introduction of magneto hydro dynamic  |  |  |
| **29th** | Power generation |  |
| **30th** | Class test |  |  |
| **7th** | **31th** | Introduction of chemical energy sources |  |  |
| **32th** | Design & operating principals of fuel cell |  |  |
| **33th** | Conversion efficiency |  |  |
| **34th** | Work output & EMF of fuel cells |  |
| **35th** | Applications of chemical energy sources |  |  |
| **8th** | **36th** | Introduction of energy conservation & management |  |  |
| **37th** | class test |  |  |
| **38th** | Need for energy conservation |  |  |
| **39th** | Environment Aspects |
| **40th** | Energy efficiency |  |  |

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| **Week** | **Lecture day** | **Theory** | **Practical day** | **Practical topic** |
| **9th** | **41th** | Energy efficient technology & overview |  |  |
| **42th** | Energy conservation in domestic sector |  |  |
| 43th | Class test |  |  |
| **44th** | Need for energy efficient device |  |
| **45th** | Energy conservation in industrial sectors motors industrial lighting |  |  |
| **10th** | **46th** | Distribution system ,pump |  |  |
| **47th** | Fans,blowers etc |  |  |
| **48th** | Energy conservation in agriculture sector |  |  |
| **49th** | Tubewell,pumps |  |
| **50th** | Diesel generating sets stand by energy sources |  |  |
| **11th** | **51th** | Macro level approach for energy conservation at design stage |  |  |
| **52th** | Class test of chapter I |  |  |
| **53th** | Class test of chapter II |  |  |
| **54th** | Class test of chapter III |  |  |
| **55th** |  Class test of chapter Iv |  |  |
| **12th** | **56th** | Class test of chapter v |  |  |
| **57th** | Class test of chapter vI |  |  |
| **58th** | Class test of chapter vII |  |  |
|  | **59th** | Class test of chapter VIII |  |  |
| **60th** | Whole Syllabus test I |  |  |
| **13th** | **61th** | Whole Syllabus test II |  |  |
| **62th** | Whole Syllabus test III |  |  |
| **63th** | Whole Syllabus test IV |  |  |
| **64th** | Whole Syllabus test IV |  |  |
| **65th** | Whole Syllabus test VI |
| **14th** | **66th** | Whole Syllabus test VII |  |  |
| **67th** | Whole Syllabus test VIII |  |  |
| **68th** | Class test of chapter V |  |  |
| **69th** | Class test of chapter VI |  |  |
| **15th** | **70th** | Class test of chapter VII |  |  |
| **71th** | Class test of chapter VIII |  |  |
| **72th** | Class test of chapter I |  |  |
| **73th** | Class test of chapter II |  |  |
| **74th** | Class test of chapter III |  |  |
| **75th** | Class test of chapter Iv |  |  |