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| LESSON PLAN |
| JHARSUGUDAENGINEERING SCHOOL,JHARSUGUDA |
| AcademicYear:2022-23 | NameoftheFaculty: RAKESH KUMAR PATTANAIK |
| Coursename:ElectricalMeasurementand Instrumentation | CourseNo.: Th3 |
| Branch:Electrical | Program:Diploma |
| Section: | Year/Sem:2nd/4th |

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| **Sl. No.** | **Period** | **Time (min)** | **Teaching Method** | **TopictobeCovered** | **Unit** |
| 1. | 1. | 55 min | Black board | Accuracy,Precision,Errors | 1 |
| 2. | 2. | 55min | Black board | Resolution,Sensitivityandtolerance | 1 |
| 3. | 3. | 55min | Black board | Classificationofmeasuringinstruments | 1 |
| 4. | 4. | 55min | Black board | Deflecting,controllinganddampingarrangements | 1 |
| 5. | 5. | 55min | Black board | Calibrationofinstruments | 1 |
| 6. | 6. | 55min | Black board | Movingironinstruments | 2 |
| 7. | 7. | 55min | Black board | PMMC instruments | 2 |
| 8. | 8. | 55min | Black board | Dynamometertypeinstruments | 2 |
| 9. | 9. | 55min | Black board | Rectifiertypeinstruments | 2 |
| 10. | 10. | 55min | Black board | Inductiontypeinstruments | 2 |
| 11. | 11. | 55 min | Black board | Extendtherangeofinstrumentsbyuseofshuntsand multipliers | 2 |
| 12. | 12. | 55 min | Black board | Solvenumerical | 2 |
| 13. | 13. | 55min | Black board | Solvenumerical | 2 |
| 14. | 14. | 55 min | Black board | Constructionofdynamometertypewattmeter | 3 |
| 15. | 15. | 55 min | Black board | Principleofoperationofdynamometertypewattmeter | 3 |
| 16. | 16. | 55min | Black board | Errorsandmethodoftheir correction | 3 |
| 17. | 17. | 55min | Black board | Inductiontypewattmeters | 3 |
| 18. | 18. | 55 min | Black board | Inductiontypeenergymeters | 4 |
| 19. | 19. | 55 min | Black board | Energymeter | 4 |
| 20. | 20. | 55 min | Black board | Testingofenergymeters | 4 |
| 21. | 21. | 55 min | Black board | Tachometers,typesandworkingprinciples | 5 |
| 22. | 22. | 55min | Black board | Mechanicalresonancetypefrequencymeters | 5 |

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| 23. | 23. | 55min | Black board | Electricalresonancetypefrequencymeters | 5 |
| 24. | 24. | 55 min | Black board | Dynamometertypesinglephasepowerfactormeters | 5 |
| 25. | 25. | 55 min | Black board | Dynamometertypethreephasepowerfactormeters | 5 |
| 26. | 26. | 55 min | Black board | Classificationofresistance | 6 |
| 27. | 27. | 55 min | Black board | Measurementoflowresistance | 6 |
| 28. | 28. | 55 min | Black board | Measurementofmediumresistance | 6 |
| 29. | 29. | 55 min | Projector | Measurementofhighresistance | 6 |
| 30. | 30. | 55 min | Projector | Meggerandearthtester | 6 |
| 31. | 31. | 55 min | Projector | Multimeter | 6 |
| 32. | 32. | 55 min | Projector | Measurementofinductance | 6 |
| 33. | 33. | 55 min | Projector | Measurementofcapacitance | 6 |
| 34. | 34. | 55 min | Projector | Transducer | 7 |
| 35. | 35. | 55 min | Projector | Classificationoftransducer | 7 |
| 36. | 36. | 55 min | Projector | Resistivetransducer | 7 |
| 37. | 37. | 55 min | Black board | Thermistor | 7 |
| 38. | 38. | 55 min | Black board | RTD | 7 |
| 39. | 39. | 55 min | Black board | Straingauge | 7 |
| 40. | 40. | 55 min | Black board | Linearandangularmotionpotentiometer | 7 |
| 41. | 41. | 55 min | Black board | Inductivetransducer | 7 |
| 42. | 42. | 55 min | Black board | LVDT | 7 |
| 43. | 43. | 55 min | Black board | Capacitivetransducer | 7 |
| 44. | 44. | 55 min | Black board | Piezoelectrictransducer | 7 |
| 45. | 45. | 55 min | Black board | Halleffect transducer | 7 |
| 46. | 46. | 55 min | Black board | Numericalproblem | 7 |
| 47. | 47. | 55 min | Black board | Numericalproblem | 7 |
| 48. | 48. | 55 min | Black board | CRO | 8 |
| 49. | 49. | 55 min | Black board | OperationofCRO | 8 |
| 50. | 50. | 55 min | Black board | Blockdiagram | 8 |
| 51. | 51. | 55 min | Black board | MeasurementofDCvoltageandcurrent | 8 |
| 52. | 52. | 55 min | Black board | MeasurementofACvoltageandcurrent | 8 |
| 53. | 53. | 55 min | Black board | Measurementofphaseandfrequency | 8 |

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| 54. | 54. | 55 min | Black board | Numericalproblem | 8 |
| 55. | 55. | 55 min | Black board | Numericalproblem | 8 |
| 56. | 56. | 55 min | Black board | Numericalproblem | 8 |
| 57. | 57. | 55 min | Black board | Numericalproblem | 8 |
| 58. | 58. | 55 min | Black board | Numericalproblem | 8 |
| 59. | 59. | 55 min | Black board | Revisionofalltopics |  |
| 60. | 60. | 55 min | Black board | Revisionofalltopics |  |