|  |
| --- |
| LESSONPLAN |
| JHARSUGUDAENGINEERINGSCHOOL,JHARSUGUDA |
| AcademicYear:2023-24 | Name of the Faculty: SOUMYA SOURAJA PANDA |
| Coursename:ElectricalMeasurementandInstrumentation | CourseNo.:Th3 |
| Branch:Electrical | Program:Diploma |
| Section: | Year/Sem:2nd/4th |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.No.** | **Period** | **Time(min)** | **TeachingMethod** | **TopictobeCovered** | **Unit** |
| 1. | 1. | 55 min | Blackboard | Accuracy,Precision,Errors | 1 |
| 2. | 2. | 55min | Blackboard | Resolution,Sensitivity andtolerance | 1 |
| 3. | 3. | 55min | Blackboard | Classificationofmeasuringinstruments | 1 |
| 4. | 4. | 55min | Blackboard | Deflecting ,controllinganddampingarrangements | 1 |
| 5. | 5. | 55min | Blackboard | Calibration ofinstruments | 1 |
| 6. | 6. | 55min | Blackboard | Movingironinstruments | 2 |
| 7. | 7. | 55min | Blackboard | PMMCinstruments | 2 |
| 8. | 8. | 55min | Blackboard | Dynamometertypeinstruments | 2 |
| 9. | 9. | 55min | Blackboard | Rectifiertypeinstruments | 2 |
| 10. | 10. | 55min | Blackboard | Inductiontypeinstruments | 2 |
| 11. | 11. | 55 min | Blackboard | Extendtherangeofinstrumentsby use ofshuntsandmultipliers | 2 |
| 12. | 12. | 55 min | Blackboard | Solvenumerical | 2 |
| 13. | 13. | 55min | Blackboard | Solvenumerical | 2 |
| 14. | 14. | 55 min | Blackboard | Constructionof dynamometertypewattmeter | 3 |
| 15. | 15. | 55 min | Blackboard | Principleofoperation ofdynamometertypewattmeter | 3 |
| 16. | 16. | 55min | Blackboard | Errorsandmethod oftheircorrection | 3 |
| 17. | 17. | 55min | Blackboard | Inductiontypewattmeters | 3 |
| 18. | 18. | 55 min | Blackboard | Inductiontypeenergymeters | 4 |
| 19. | 19. | 55 min | Blackboard | Energymeter | 4 |
| 20. | 20. | 55 min | Blackboard | Testingofenergymeters | 4 |
| 21. | 21. | 55 min | Blackboard | Tachometers,typesandworkingprinciples | 5 |
| 22. | 22. | 55min | Blackboard | Mechanicalresonancetypefrequencymeters | 5 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 23. | 23. | 55min | Blackboard | Electricalresonancetypefrequencymeters | 5 |
| 24. | 24. | 55 min | Blackboard | Dynamometertypesinglephasepowerfactormeters | 5 |
| 25. | 25. | 55 min | Blackboard | Dynamometertypethreephasepowerfactormeters | 5 |
| 26. | 26. | 55 min | Blackboard | Classificationofresistance | 6 |
| 27. | 27. | 55 min | Blackboard | Measurementoflow resistance | 6 |
| 28. | 28. | 55 min | Blackboard | Measurementof mediumresistance | 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 | Blackboard | Thermistor | 7 |
| 38. | 38. | 55 min | Blackboard | RTD | 7 |
| 39. | 39. | 55 min | Blackboard | Straingauge | 7 |
| 40. | 40. | 55 min | Blackboard | Linearandangularmotionpotentiometer | 7 |
| 41. | 41. | 55 min | Blackboard | Inductivetransducer | 7 |
| 42. | 42. | 55 min | Blackboard | LVDT | 7 |
| 43. | 43. | 55 min | Blackboard | Capacitivetransducer | 7 |
| 44. | 44. | 55 min | Blackboard | Piezoelectrictransducer | 7 |
| 45. | 45. | 55 min | Blackboard | Halleffecttransducer | 7 |
| 46. | 46. | 55 min | Blackboard | Numericalproblem | 7 |
| 47. | 47. | 55 min | Blackboard | Numericalproblem | 7 |
| 48. | 48. | 55 min | Blackboard | CRO | 8 |
| 49. | 49. | 55 min | Blackboard | OperationofCRO | 8 |
| 50. | 50. | 55 min | Blackboard | Blockdiagram | 8 |
| 51. | 51. | 55 min | Blackboard | MeasurementofDC voltage andcurrent | 8 |
| 52. | 52. | 55 min | Blackboard | MeasurementofAC voltage and current | 8 |
| 53. | 53. | 55 min | Blackboard | Measurementofphaseandfrequency | 8 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 54. | 54. | 55 min | Blackboard | Numericalproblem | 8 |
| 55. | 55. | 55 min | Blackboard | Numericalproblem | 8 |
| 56. | 56. | 55 min | Blackboard | Numericalproblem | 8 |
| 57. | 57. | 55 min | Blackboard | Numericalproblem | 8 |
| 58. | 58. | 55 min | Blackboard | Numericalproblem | 8 |
| 59. | 59. | 55 min | Blackboard | Revisionofalltopics |  |
| 60. | 60. | 55 min | Blackboard | Revisionofalltopics |  |