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| LESSON PLAN | |
| JHARSUGUDAENGINEERING SCHOOL,JHARSUGUDA | |
| NameoftheFaculty: AKANKHYA SURAVITA KAR | AcademicYear:2023-24 |
| CourseNo.:Th-1 | CourseName:ENERGYCONVERSION-1 |
| Programe:Diploma | Branch:-Electrical |
| Year/Sem: II/ IV |

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| **Sl.**  **No.** | **Period** | **Time (min)** | **Unit** | **TopictobeCovered** | **Teaching Method** |
| 1. | 1. | 55 min | 1 | Operatingprincipleofgenerator,constructionFeature | Black board |
| 2. | 2. | 55 min | 1 | Simplelapwinding,wavewinding | Black board |
| 3. | 3. | 55 min | 1 | Typesofd.cmachine,derivationofemfequationofd.c gerator. | Black board |
| 4. | 4. | 55 min | 1 | Problemsond.cgenerator | Black board |
| 5. | 5. | 55 min | 1 | Lossesandefficiency,conditionformaximumefficiency and problems | Black board |
| 6. | 6. | 55 min | 1 | Armaturereactionind.cmachine | Black board |
| 7. | 7. | 55 min | 1 | commutation | Black board |
| 8. | 8. | 55 min | 1 | Characteristicofd.cgenerator | Black board |
| 9. | 9. | 55 min | 1 | Applicationoftypesofd.cgenerators. | Black board |
| 10 | 10. | 55 min | 1 | Conceptofcriticalresistanceandcritical speed | Black board |
| 11 | 11. | 55 min | 1 | Paralleloperationofd.c generator | Black board |
| 12 | 12. | 55 min | 1 | Usesofd.c generator | Black board |
| 13 | 13. | 55 min | 2 | D.Cmotorworkimgprinciple,significanceofbacke.m.f | Black board |
| 14 | 14. | 55 min | 2 | VoltageequationofD.Cmotor | Black board |
| 15 | 15. | 55 min | 2 | Derivetorqueequation,problems | Black board |
| 16 | 16. | 55 min | 2 | Characteristicofseries,shunt,compoundmotors | Black board |
| 17 | 17. | 55 min | 2 | Startingmethodofseries,shuntandcompoundmotor | Black board |
| 18 | 18. | 55 min | 2 | Speedcontrolofd.cseries motor | Black board |
| 19 | 19. | 55 min | 2 | Speedcontrolofd.cshuntmotor | Black board |
| 20 | 20. | 55 min | 2 | Braketestmethod | Black board |
| 21 | 21. | 55 min | 2 | Swinburne’stestmethod | Black board |
| 22 | 22. | 55 min | 2 | LossesefficiencyandusesofD.Cmotor | Black board |
| 23 | 23. | 55 min | 3 | Introductionandworkingprincipleoftransformer | Black board |

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| 24 | 24. | 55 min | 3 | Constructionalfeatureoftransformer | Black board |
| 25 | 25. | 55 min | 3 | Careandmaintenanceoftransformer | Black board |
| 26 | 26. | 55 min | 3 | E.m.fequationoftransformer | Black board |
| 27 | 27. | 55 min | 3 | Noloadcondition,onloadconditionphasordiagram | Black board |
| 28 | 28. | 55 min | 3 | Equivalentresistance,leakagereactanceandimpeadanceof transformer | Black board |
| 29 | 29. | 55 min | 3 | problems | Black board |
| 30 | 30. | 55 min | 3 | Exactvoltagedrop calculation | Black board |
| 31 | 31. | 55 min | 3 | Regulationoftransformer | Black board |
| 32 | 32. | 55 min | 3 | Lossesintransformer | Black board |
| 33 | 33. | 55 min | 3 | Opencircuittest,shortcircuit test | Black board |
| 34 | 34. | 55 min | 3 | Problemsinopenandshortcircuittest | Black board |
| 35 | 35. | 55 min | 3 | Explainefficiencyofdifferentloadandpowerfactor | Black board |
| 36 | 36. | 55 min | 3 | Conditionofmaximumefficiiency | Black board |
| 37 | 37. | 55 min | 3 | Alldayefficiencyintransformer | Black board |
| 38 | 38. | 55 min | 3 | Determinationofloadcorrespondingtomaximum efficiency | Black board |
| 39 | 39. | 55 min | 3 | Paralleloperationofsinglephasetransformers | Black board |
| 40 | 40. | 55 min | 4 | Constructionofautotransformer | Black board |
| 41 | 41. | 55 min | 4 | Workingprincipleofautotransformer | Black board |
| 42 | 42. | 55 min | 4 | Comparisionofautotransformerwithtwowinding transformer | Black board |
| 43 | 43. | 55 min | 4 | Usesofautotransformer | Black board |
| 44 | 44. | 55 min | 4 | Explaintapchangerwithtransformeronloadcondition | Black board |
| 45 | 45. | 55 min | 4 | Offload condition | Black board |
| 46 | 46. | 55 min | 5 | Explaincurrenttransformer | Black board |
| 47 | 47. | 55 min | 5 | Potentialtransformer | Black board |
| 48 | 48. | 55 min | 5 | Ratioerror,phaseangleerror,burden | Black board |
| 49 | 49. | 55 min | 5 | UsesofC.Tand P.T | Black board |
| 50 | 50. | 55 min |  | REVISION | Black board |
| 51 | 51. | 55 min |  | REVISION | Black board |
| 52 | 52. | 55 min |  | REVISION | Black board |
| 53 | 53. | 55 min |  | REVISION | Black board |