DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

| ***LESSION PLAN FOR ACADEMIC SESSION SUMMER 2019-20*** | |
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| JHARSUGUDA ENGINEERING SCHOOL,JHARSUGUDA | |
| Name of the Faculty: SUNIL KUMAR PAL | Academic Year:2019-20 |
| Course No.: Th-4b | Course Name: Basic Electronics |
| Program: Diploma | Branch: Civil & Mechanical |
| Year/Sem: 1st / 2nd | Section: A, B & C |
| Total Period s : 30 P/ Sem | End Semester Exam : 40marks |
| Examination : 3 Hours | Internal Assessment :10 Marks |
| | TOTAL MARKS :50 Marks |

| Sl. No. | Period | Time (min) | Unit/ Chapter | Topic to be covered | Teaching method |
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| 1. | 1. | 55 | 1 | .ELECTRONIC DEVICES<br>1.1 Basic Concept of Electronics and its application. | Black board |
| 2. | 2. | 55 | 1 | Basic Concept of Electron Emission & its types. | Black board |
| 3. | 3. | 55 | 1 | Classification of material according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only., | Black board |
| 4. | 4. | 55 | 1 | Classification of material according to electrical conductivity (Conductor, Semiconductor & Insulator) with respect to energy band diagram only. | Black board |
| 5. | 5. | 55 | 1 | Difference between Intrinsic & Extrinsic Semiconductor. | Black board |
| 6. | 6. | 55 | 1 | Difference between vacuum tube & semiconductor. | Black board |
| 7. | 7. | 55 | 1 | Principle of working and use of PN junction diode, Zener diode and Light Emitting Diode (LED)<br>. | Black board |
| 8. | 8. | 55 | 1 | Integrated circuits (I.C) & its advantages. | Black board |
| 9. | 9. | 55 | 2 | 2. ELECTRONIC CIRCUITS<br>2.1 Rectifier &its uses. | Black board |
| 10. | 10. | 55 | 2 | 2.2 Principles of working of different types of | Black board |

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| | | | | Rectifiers with their merits and demerits | |
| 11. | 11. | 55 | 2 | 2.2 Principles of working of different types of Rectifiers with their merits and demerits | Black board |
| 12. | 12. | 55 | 2 | 2.3 Functions of filters and classification of simple Filter circuit (Capacitor, choke input and π) | Audio visual smart class |
| 13. | 13. | 55 | 2 | 2.4 Working of D.C power supply system (unregulated) with help of block diagrams only | Black board |
| 14. | 14. | 55 | 2 | 2.5 Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE,CB and CC configuration( No mathematical derivation) | Black board |
| 15. | 15. | 55 | 2 | 2.5 Transistor, Different types of Transistor Configuration and state output and input current gain relationship in CE,CB and CC configuration( No mathematical derivation) | Black board |
| 16. | 16. | 55 | 2 | 2.6 Need of biasing and explain different types of biasing with circuit diagram.( only CE configuration). | Black board |
| 17. | 17. | 55 | 2 | 2.7 Amplifiers(concept) , working principles of single phase CE amplifier . | Audio visual smart class |
| 18. | 18. | 55 | 2 | 2.8 Electronic Oscillator and its classification | Black board |
| 19. | 19. | 55 | 2 | 2.9 Working of Basic Oscillator with different elements through simple Block Diagram | Black board |
| 20. | 20. | 55 | 3 | 3. COMMUNICATION SYSTEM 3.1 Basic communication system (concept & explanation with help of Block diagram) | Black board |
| 21. | 21. | 55 | 3 | 3.2 Concept of Modulation and Demodulation, Difference between them | Black board |
| 22. | 22. | 55 | 3 | 3.3 Different types of Modulation (AM, FM & PM) based on signal, carrier wave and modulated wave (only concept, No mathematical Derivation) | Black board |
| 23. | 23. | 55 | 3 | 3.3 Different types of Modulation (AM, FM & PM) based on signal, carrier wave and modulated wave (only concept, No mathematical Derivation) | Black board |
| 24. | 24. | 55 | 4 | 4. TRANSDUCERS AND MEASURING INSTRUMENTS 4.1 Concept of Transducer and sensor with their differences. | Black board |
| 25. | 25. | 55 | 4 | 4.2 Different type of Transducers & concept of active and passive transducer. | Black board |
| 26. | 26. | 55 | 4 | 4.3 Working principle of photo emissive, photoconductive, photovoltaic transducer and its application | Black board |
| 27. | 27. | 55 | 4 | 4.4 Multimeter and its applications . 4.5 Analog and Digital Multimeter and their differences 4.6 Working principle of Multimeter with | Black board |

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| | | | | Basic Block diagram | |
| 28. | 28. | 55 | 4 | 4.7CRO, working principle of CRO with simple Block diagram | Black board |
| 29. | 29. | 55 | 4 | Revision /Questions Discussion | Black board |
| 30. | 30. | 55 | 4 | Revision /Questions Discussion | Black board |