**Course Outcome**

**Year: 2024-25 Semester: II Class: FE COMP-B**

**Course: Basic Electronics Engineering**

**Name of Faculty: Pranita Tambe**

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| **SL. NO.** | **CO** | **Course Outcomes: On completion of the course, learner will be able to** |
| 1 | CO1 | **Know** about the working of P-N Junction diode and its application as rectifier and switch, basics of LED and Photodiode. |
| 2 | CO2 | **Understand** the working of BJT and MOSFET, their characteristics and compare. |
| 3 | CO3 | **Learn** Logic gates and realization of digital circuits. |
| 4 | CO4 | **Understand** the functioning of Opamp and electronic instruments. |
| 5 | CO5 | **Select** sensors based on their working principle for specific applications and its implementation with Communication system. |

**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGG**

**Assignment (Unit-3)**

**Year: 2024-25 Semester: II Class: FE COMP-B**

**Course: Basic Electronics Engineering**

**Name of Faculty: Pranita Tambe**

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|  | **Questions** | **BT** | **CO** |
| 1 | With the help of truth table, explain operation of AND, OR, EX-OR, EX-NOR, NOT gates. | 1 | CO3 |
| 2 | Define Universal Logic Gates. Why they are known as Universal Logic Gates? | 1,2 | CO3 |
| 3 | State and prove De-Morgan’s Theroem. | 1 | CO3 |
| 4 | Explain in detail the working of a full adder with the help of a truth table and give is sum and carry. | 1 | CO3 |
| 5 | Explain different types of flip-flops and state one application of each. | 1 | CO3 |
| 6 | Draw block diagram of Microprocessor and explain function of each block. | 3 | CO3 |
| 7 | Draw block diagram of Microcontroller and explain function of each block. | 3 | CO3 |
| 8 | Explain digital IC Design flow with block diagram. | 1 | CO3 |
| 9 | Differentiate between Microprocessor and Microcontroller | 2 | CO3 |
| 10 | Solve:   1. Convert 2BA.0C-Hexadecimal to Octal 2. Convert 462.27- Octal to Hexadecimal 3. Convert 105.15 Decimal to Binary 4. Convert 4057.067- Octal to Decimal 5. Convert 1101101110.1001101 to Hexa Decimal 6. (110011-111001) using 2’s complement method 7. (111011.11+100100.01)2 8. Find 1’s complement of 111001 9. (11100-01111)2 using 2’s complement method. | 3 | CO3 |

**Course Outcome**

**Year: 2024-25 Semester: II Class: FE COMP-B**

**Course: Basic Electronics Engineering**

**Name of Faculty: Pranita Tambe**

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| **SL. NO.** | **CO** | **Course Outcomes: On completion of the course, learner will be able to** |
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| 4 | CO4 | **Understand** the functioning of Opamp and electronic instruments. |
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**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGG**

**Assignment (Unit-4)**

**Year: 2024-25 Semester: II Class: FE COMP B**

**Course: Basic Electronics Engineering**

**Name of Faculty: Pranita Tambe**

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|  | **Questions** | **BT** | **CO** |
| 1 | Draw and explain block diagram of digital multimeter | 1,3 | CO4 |
| 2 | Draw and explain block diagram of Function Generator. | 1,3 | CO4 |
| 3 | Draw and explain block diagram of digital storage oscilloscope. | 1,3 | CO4 |
| 4 | Draw and explain block diagram of DC power supply | 1,3 | CO4 |
| 5 | Draw and explain block diagram of Opamp. | 1,3 | CO4 |
| 6 | Write all ideal and practical values of performance parameter of Opamp | 1 | CO4 |