

## Assignment No.3

[BCA+ BSc(IT)] II Semester

[TBC-203/TBI-203] Digital Electronics

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NOTE: Make one pdf and file name should be your Name. Submit your file on the given mail id.

- 1) What is a Demultiplexer? Explain the difference between DEMUX and MUX.
- 2) Explain a 3 x 8 decoder with the help of AND gate & NOT gate.
- 3) Implement a 3 x 8 decoder with two 2 x 4 decoders.
- 4) Explain 4-bit parallel ADDER/SUBTRACTOR.
- 5) Explain the following arithmetic circuits with their proper truth tables, logic diagrams, logic expressions & logic symbols.
  1. Half Adder
  2. Full Adder
  3. Full Subtractor