

M.Sc. (Previous)  
Term End Examination, 2016-17

# COMPUTER SCIENCE

## Paper - I

# Digital Electronics and Microprocessor

*Time : Three Hours]                      [Maximum Marks : 100*  
*[Minimum Pass Marks : 36*

**Note** : Answer any **five** questions. All questions carry equal marks.

1. Explain Emitter Coupled Logic (ECL) and Transistor Transistor Logic (TTL) in detail. Also explain the significance of Logic Families.
2. What is the use of Karnaugh Map ? Explain with the help of example.
3. Explain the following :
  - (a) Full adder

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- (b) Excess-3 code
  - (c) Gray Code
4. Explain JK flip-flop with truth table.
  5. What is Ripple Counter ? Explain in detail.
  6. Explain the following :
    - (a) BCD to 84-2-1 code converter
    - (b) Two bit comparator
    - (c) Decoder
  7. Explain the Moore and Mealy machine with the help of example.
  8. Explain the multivibrator and bistable multivibrator.

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