

# **AE-814**

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*

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

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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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