

D 23440-A

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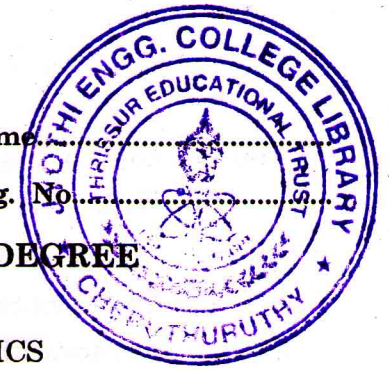
Name:

Reg. No.

**FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2011**

EE 04 503—PULSE AND DIGITAL ELECTRONICS

(2004 admissions)



Time : Three Hours

Maximum : 100 Marks

Answer all questions.

1. (a) Explain voltage sweep errors.
(b) Draw circuit for symmetrical and asymmetrical triggering of Bistable Schmitt Trigger Circuit.
(c) Explain De-Morgan Theorems with an example.
(d) Explain de-multiplexer with a neat diagram.
(e) Explain Johnson counter with a neat diagram.
(f) Explain static RAM with a neat diagram.
(g) Explain Data bus with a neat diagram.
(h) Write any *five* single byte instructions.

(8 × 5 = 40 marks)

2. (a) Explain forward and reverse recovery characteristics of diode with a neat diagram.

Or

- (b) Explain symmetrical and asymmetrical triggering of bistable Schmitt trigger circuit.

(15 marks)

3. (a) (i) Design binary to BCD converter.

(7 marks)

- (ii) Design full subtractor using two half-subtractor.

(8 marks)

Or

- (b) (i) Give the comparison between RDM, PLA and PAL.

(8 marks)

- (ii) Convert the given expression in canonical SOP form :

$$Y = AC + AB + BC.$$

(7 marks)

4. (a) (i) Write short notes on static and dynamic RAM.

(8 marks)

- (ii) Draw excitation table and truth table for D-flip-flop.

(7 marks)

Or

- (b) Design a MOD-5 synchronous counter using D-flip-flop and implement it.

(15 marks)

Turn over

5. (a) (i) Explain programme counter with a neat diagram.
(ii) Write short notes on microcomputer operations.

(8 marks)

(7 marks)

Or

- (b) (i) Explain arithmetic logic units.
(ii) Explain arithmetic instructions of 8085 with an example.

(8 marks)

(7 marks)

[4 × 15 = 60 marks]