Exam.Code:0921
Sub. Code: 6835

1079

B.E. (Information Technology) Third Semester
ITE-374/343/303: Digital Electronics

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Answer the following:-

a) What is a full subtracter? Give its truth table.

b) Draw the logic diagram for the logic function Z = (A+B+C).D

c) What is difference between synchronous and ripple counter.

d) Explain the function of PRESET and CLEAR in Flip-flop.

e) Explain noise margin and advantages of CMOS.

UNIT – I

II. How will you convert R-S flip flop into J-K Flip flop? Also discuss characteristic table of J-K Flip flop. (10)

III. Design MOD-6 up-down counter using D flip-flops. (10)

IV. Explain error detecting codes in detail. (10)

UNIT – II

V. What is the difference between ROM and RAM? Draw the basic structure of RAM cell. Compare static and dynamic RAM cells. (10)

VI. Give the classification of TTL. Explain the working of TTL NAND Gate. (10)

VII. Explain the operation of successive approximation type of ADC. (10)

x-x-x