

Dec. 2006

Section - A (Marks : 2 each)

- Q. 1 (a) $(10101)_2$ convert to Decimal Number system.
(b) Convert hexadecimal number F3A7C2 to binary.
(c) What is Encoder?
(d) What is a bus?
(e) Implement the function $F(x, y, z) = \sum (0, 6)$ with NOR gates.
(f) What is Flip-flop?
(g) Explain about line termination?
(h) What is multivibrators?
(i) Explain about VLSI design.
(j) What is EEPROM?

Section - B (Marks : 5 each)

- Q. 2 Simplify the boolean function $F = x'yz + xy'z' + xyz + xyz'$.
Q. 3 Explain Emitter-Coupled Logic (ECL).
Q. 4 What is Rom? Explain all types of Rom's.
Q. 5 Explain about D-flip-flop?
Q. 6 Explain about D/A conversion? Techniques?

Section - C (Marks : 10 each)

- Q. 7 Simplify the following Boolean Function in
(a) Sum of products
(b) Product of sums
 $F(A, B, C, D) = \sum (0, 1, 2, 5, 8, 9, 10)$

What is the difference between custom and semi-custom design?

Explain about Bus Structure.