CS201

Question 1: How much an investor has to invest a lump sum amount in order to have Rs.3 million in 20 years from now if the rate of interest is 16 % compounded quarterly?

Question 2: If you hired by a government bank as an auditor what you do for permit bank's Credibility?

Question 3: Determine the values of A, B, C, and D that make the sum term equal to zero.
A = 1, B = 0, C = 0, D = 0
A = 1, B = 0, C = 1, D = 0
A = 0, B = 1, C = 0, D = 0
A = 1, B = 0, C = 1, D = 1

Question 4: Differentiate between hexadecimal and octal number system

Answer:

1. octal - base 8
2. hexadecimal - base 16

Octal and hex are used to represent numbers instead of decimal because there is a very easy and direct way to convert from the "real" way that computers store numbers (binary) to something easier for humans to handle (fewer symbols). To translate a binary number to octal, simply group the binary digits three at a time and convert each group. For hex, group the binary digits four at a time.

Question 5: Draw the circuit diagram of a Tri-State buffer.

Question 6: Draw the circuit diagram of NOR based S-R Latch?

Question 7: Draw the diagram of odd parity generator circuit.

Question 8: Draw the diagram of S-R latch

Question 9: Draw the diagram of Tri-stuff

Question 10: Draw the function table of 3 to 8 decoder.

Answer:

THE 74XX138 3-TO-8 DECODER

The 3-to-8, 74XX138 Decoder is also commonly used in logical circuits. Similar, to the 2-to-4 Decoder, the 3-to-8 Decoder has active-low outputs and three extra NOT gates connected at the three inputs to reduce the four unit load to a single unit load. The 3-to-8 Decoder has three enable inputs, one of the three enable inputs is active-high and the remaining two are active-low. All three enable inputs have to be activated for the Decoder to work. The function table of the 3-to-8 decoder is presented. Table 17.1

Question 11: Draw the table of NOR Gate

Question 12: Draw the Truth-Table of NOR based S-R Latch

Question 13: Explain "AND" Gate and some of its uses

Answer:
AND gates are used to combine multiple signals, if all the signals are TRUE then the output will also be TRUE. If any of the signals are FALSE, then the output will be false. ANDs aren't used as much as NAND gates; NAND gates use less components and have the advantage that they be used as an inverter.