

## 19EE404 Digital Electronics

### Topic:

Number System conversions

### Overview of the Topic

There are **three conversions possible for binary number**, i.e., binary to decimal, binary to octal, and binary to hexadecimal. The conversion process of a binary number to decimal differs from the remaining others.

### Teaching Method

Flipped class and video lecture followed by Quiz

### Proof for the activity








<https://youtu.be/AcIpQjOxIV0>

<https://youtu.be/tACxXooyKLO>

### Feedback from the students about the activity and Knowledge gained

Students felt easy about those conversions and quiz was conducted based on those conversion systems. Students scored good marks

Q.No	Question	Score
1	..... is the building block of electronic circuit ..... is the building block of electronic circuit	1.00
2	1's complement of 11100110 is ..... 1's complement of 11100110 is .....	1.00
3	Convert (0.6875) <sub>10</sub> to binary Convert (0.6875) <sub>10</sub> to binary	1.00
4	Convert hexadecimal value 16 to decimal. Convert hexadecimal value 16 to decimal.	1.00
5	Convert the following binary number to decimal.010112 Convert the following binary number to decimal.010112	1.00
6	Decimal number 10 is equal to binary number ..... Decimal number 10 is equal to binary number .....	1.00
7	Express the boolean function $F=A+B'C$ as Sum of minterms Express the boolean function $F=A+B'C$ as Sum of minterms	1.00
8	For the SOP expression $AB'C+A'BC+ABC$ . How many 1s are in the truth table's ... For the SOP expression $AB'C+A'BC+ABC$ . How many 1s are in the truth table's output?	1.00
9	Convert the following binary number into gray code 10110110 Convert the following binary number into gray code 10110110	1.00
10	Simplify $Y = A'BC+ABC$ Simplify $Y = A'BC+ABC$	1.00

	First name / Surname	Email address	State	Started on	Completed	Time taken	Grade/15.00	Q. 1 /1.00	Q. 2 /1.00	Q. 3 /1.00	Q. 4 /1.00	Q. 5 /1.00	Q. 6 /1.00	Q. 7 /1.00	Q. 8 /1.00	Q. 9 /1.00	Q. 10 /1.00
<input type="checkbox"/>	 SANDHYA CHARU N 20005083 Review attempt	sandhyacharu23@gmail.com	Finished	8 May 2021 12:03 PM	8 May 2021 12:12 PM	8 mins 46 secs	10.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✗ 0.00	✓ 1.00	✗ 0.00	✓ 1.00
<input type="checkbox"/>	 SANDHYA CHARU N 20005083 Review attempt		Finished	8 May 2021 12:13 PM	8 May 2021 12:30 PM	16 mins 27 secs	13.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00
<input type="checkbox"/>	 BENCY SHARON S 212220050006 Review attempt	benzysharon09@gmail.com	Finished	9 May 2021 7:18 AM	9 May 2021 7:24 AM	5 mins 41 secs	8.00	✓ 1.00	✓ 1.00	✗ 0.00	✗ 0.00	✗ 0.00	✓ 1.00	✗ 0.00	✓ 1.00	✗ 0.00	✓ 1.00
<input type="checkbox"/>	 SWETHA.K.P 212220230053 Review attempt	kpswethasweety6767@gmail.com	Finished	9 May 2021 7:49 AM	9 May 2021 2:00 PM	6 hours 10 mins	0.00	✗ -	✗ -	✗ -	✗ -	✗ -	✗ -	✗ -	✗ -	✗ -	✗ -
<input type="checkbox"/>	 VEERAPALLI JANITH CHOWDARY 212220230057 Review attempt	janith2219@gmail.com	Finished	9 May 2021 9:44 AM	9 May 2021 9:49 AM	4 mins 51 secs	5.00	✓ 1.00	✗ 0.00	✗ 0.00	✗ 0.00	✗ 0.00	✓ 1.00	✗ 0.00	✓ 1.00	✗ 0.00	✗ 0.00
<input type="checkbox"/>	 KUMARAVEL V 212220230027 Review attempt	kumaravelkuma07@gmail.com	Finished	9 May 2021 10:17 AM	9 May 2021 10:21 AM	4 mins 17 secs	6.00	✗ 0.00	✓ 1.00	✓ 1.00	✗ 0.00	✗ 0.00	✗ 0.00	✓ 1.00	✓ 1.00	✗ 0.00	✗ 0.00
<input type="checkbox"/>	 Venkatesh 212220230018 Review attempt	venky.ganapathi009@gmail.com	Finished	9 May 2021 10:27 AM	9 May 2021 10:47 AM	20 mins 26 secs	11.00	✗ 0.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✓ 1.00	✗ 0.00	✓ 1.00	✗ 0.00	✗ 0.00

## Outcome of the activity

Students are able to solve different types of number conversions