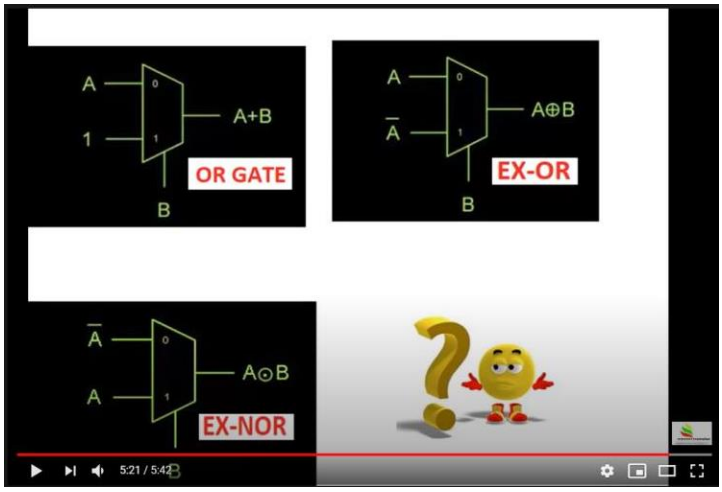
DAILY ASSESSMENT FORMAT

Date:	**28 May 2020**	**Name:**	**Kishan shetty**
Course:	**LOGIC DESIGN**	**USN:**	**4AL17EC041**
Topic:	• **Boolean equations for digital circuits.** • **Combinational circuits: Conversion of MUX and Decoders to logic gates.** • **design of 7 segment decoder with common anode display**	**Semester & Section:**	**6th sem A sec**
Github Repository:	**Kishanshetty-041**		

FORENOON SESSION DETAILS
Image of session



Report – Report can be typed or hand written for up to two pages.

Boolean Algebra :

- **In 1854 ,George Boole Developed an Algebraic System Called Boolean Algebra.**
- **Boolean Algebra is a System of Mathematical Logics.**
- **It is Defined With a set of Elements,a set of Operators and a Number of Postulates**

Laws of Boolean Algebra:

- **Commutative Law**

X+Y=Y+X

A+B =B+A

X.Y=Y.X

A.B=B.A

- **Associative Law**

X+(Y+Z)=(X+Y)+3

A+(B+C)=(A+B)+C

X.(Y.Z)=(X.Y).Z

A.(B.C)=(A.B).C

- **Distributive Law**

X(Y+Z)=XY+YZ

A(B+C)=AB+AC

- **Absorption Theorem**

X+XY=X

A+AB=A

X+~XY=X+Y

Combinational circuits: Conversion of MUX and Decoders to logic gates:

- **A combination circuit is one that has a "combination" of series and parallel paths for the electricity to flow. Its properties are a combination of the two. In this example, the parallel section of the circuit is like a sub-circuit and actually is part of an over-all series circuit.**

- **In computing and electronic systems, binary-coded decimal (BCD) is a class of binary encodings of decimal numbers where each digit is represented by a fixed number of bits, usually four or eight. Sometimes, special bit patterns are used for a sign or other indications (e.g. error or overflow).**

- **Binary Coded Decimal (BCD or "8421" BCD) numbers are made up using just 4 data bits (a nibble or half a byte) similar to the Hexadecimal numbers we saw in the binary tutorial, but unlike hexadecimal numbers that range in full from 0 through to F, BCD numbers only range from 0 to 9.**

Date:	**28 May 2020**	**Name:**	**Kishan shetty**
Course:	**python**	**USN:**	**4AL17EC041**
Topic:	**Application 5: Build a Desktop Database Application**	**Semester & Section:**	**6th sem & A sec**

AFTERNOON SESSION DETAILS

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Application 5: Build a Desktop Database Application

- Python program that allows the user to store, update, delete, etc. information about the books using Tkinter library which is a graphical user interface and sqlite library which interacts with SQLite database.
- A sketch of a user interface would help in writing the python script (GUI) for the application.
- To locate widgets for the interface, the interface is divided into rows and columns and then by using grid function widgets are added to the interface.
- Tkinter possess three layout managers:
  - Pack - Pack is the easiest to use of the three geometry managers of Tk and Tkinter. Instead of having to declare precisely where a widget should appear on the display screen, we can declare the positions of widgets with the pack command relative to each other. The pack command takes care of the details. Though the pack command is easier to use, this layout managers is limited in its possibilities compared to the grid and place mangers.
  - Grid - Grid is in many cases the best choice for general use. The Grid geometry manager places the widgets in a 2-dimensional table, which consists of a number of rows and columns. The position of a widget is defined by a row and a column number. Widgets with the same column number and different row numbers will be above or below each other. Correspondingly, widgets with the same row number but different column numbers will be on the same "line" and will be beside of each other, i.e. to the left or the right.
  - Place - The Place geometry manager allows you explicitly set the position and size of a window, either in absolute terms, or relative to another window. The place manager can be accessed through the place method. It can be applied to all standard widgets.

- Executable file for the program is created with the help of pyinstaller library.
- PyInstaller bundles a Python application and all its dependencies into a single package. The user can run the packaged app without installing a Python interpreter or any modules.