**DAILY ASSESSMENT FORMAT**

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| **Date:** | **28-05-2020** | **Name:** | **Rachana C Hulikatti** |
| **Course:** | **Logic Design** | **USN:** | **4AL17EC108** |
| **Topic:** | **Boolean equations for digital**  **circuits. Combinational circuits:**  **Conversion of MUX and Decoders to**  **logic gates.** | **Semester & Section:** | **6th & B** |
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| **FORENOON SESSION DETAILS** |
| **Image of session:**  **B**oolean 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  MUX to Logic Gates Conversion:  NAND,NOR-Universal Gates , Universal Gates , MUX and Decoders are Called Universal Logic  Multiplexer is device which Selects one or Several Digital or Analog Inputs and It will Forward it to  BCD to SEVEN Segment Decoder. |
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| **AFTERNOON SESSION DETAILS** |
| **Linear Regression Models -**  **The term "regression" generally refers to predicting a real number. However, it can also be used for classification (predicting a category or class.)**  **The term "linear" in the name “linear regression” refers to the fact that the method models data with linear combination of the explanatory variables. A linear combination is an expression where one or more variables are scaled by a constant factor and added together.**  **In the case of linear regression with a single explanatory variable, the linear combination used in linear regression can be expressed as:response = intercept + constant ∗ explanatory.In its most basic form fits a straight line to the response variable. The model is designed to fit a line that minimizes the squared differences (also called errors or residuals.).**  **Before we generate a model, we need to understand the degree of relationship between the attributes Y and XMathematically correlation between two variables indicates how closely their relationship follows a straight line. By default we use Pearson’s correlation which ranges between -1 and +1.Correlation of extreme possible values of -1 and +1 indicate a perfectly linear relationship between X and Y whereas a correlation of 0 indicates absence of linear relationship**  **When r value is small, one needs to test whether it is statistically significant or not to believe that there is correlation or not.** |
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