Assignment No : 1 DATE: 09/10/2020

Subject : **DISCRETE MATHS**

1. Show that $p \rightarrow q$ and $\neg p \vee q$ are logically equivalent.

2. Obtain truth value for $\alpha = (P \rightarrow Q) \wedge (Q \rightarrow P)$.

3. Determine whether each of the following form is a tautology or a contradiction or neither :

   I. $(\neg P \wedge \neg Q) \rightarrow (P \rightarrow Q)$

   II. $(P \rightarrow Q) \wedge (P \wedge \neg Q)$

   III. $[\![P \wedge (P \rightarrow \neg Q) \rightarrow Q]\!]$

***Instruction:**

Students are requested to submit their assignment in **Google classroom** in **pdf** file.

(Write your assignment in **A4** paper -----→take the pictures of your assignment -----→ make a **single** pdf file ----→upload your assignment in google classroom)