# Homework # for ECS 20

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This assignment was made with  $\LaTeX$ .

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## 1 Question 1

p	q	r	$\neg q$
T	T	T	F
T	T	F	F
T	F	T	T
T	F	F	T
F	T	Т	F
F	T	F	F
F	F	T	T
F	F	F	T

## 2 Question 2

- 2.1 part 1
- 2.2 part 2
  - 1.  $(q \land (p \Rightarrow \neg q)) \Rightarrow \neg p \longrightarrow \text{Original statement}.$
  - 2.  $(T) \longrightarrow \text{Truth or (something) is Truth.}$

## 3 Question 3

#### 3.1 part 1

$$\begin{array}{ccc} & & p \rightarrow q \\ \text{Modus Ponens} & & p \\ & \therefore & q \end{array}$$

- 3.2 part 2
- 3.3 part 3
- 4 Question 4
- 5 Answers

My answer for 1 , 2 , 2.1 , 2.2 , 3 , 3.1 , 3.2 ,3.3, 4 is on page ii.