

CS/IS F214 – Quiz 1 (15marks) – Solutions

Question Set A:

Question-1:

Premises:

1.  $\neg C \rightarrow \neg E$                       2.  $\neg G \rightarrow \neg C$                       4.  $G \rightarrow L$

Proof (steps):

- 7.a.  $\neg C$                        $\neg I$  on 6  
    b.  $\neg G$                       MT on (2, 7a)  
    c.  $G$                        $\neg E$  on 7b  
8.  $L$                        $\rightarrow E$  on (4, 7c)  
9.  $K \& H$                        $\rightarrow E$  on (3, 8)

Question-2:

Proof(steps):

3.  $P$                        $\&E$  on 1  
4.  $P \& R$                        $\&I$  on 2,3  
5.  $R \rightarrow (P \& R)$                        $\rightarrow I$  on 2-4

Question Set B:

Question-1:

Premises:

1.  $C \& D$                       2.  $C \rightarrow !S$                       3.  $M \rightarrow S$                       4.  $!T \rightarrow M$                       5.  $T \rightarrow H$

Proof (steps):

9.a  $!T$                       MT on (4,8)

9.b  $T$                        $!!e$  on 9.a

10.  $H$                        $\rightarrow e$  on (5,9b)

Question -2:

Proof (steps):

4.  $R$                        $\&e$  on 3

5.  $P \& R$                        $\&i$  on (1,4)

6.  $R \& S \rightarrow P \& R$                        $\rightarrow i$  on 3-5